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**Augmenting Sustainability of Ecovillages- A Review of concepts and  
practices of ecovillage in local and regional contexts**

**By**

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## **ABSTRACT**

Different interpretations of sustainability result in the sustainability gap between action-implementation and policy-making. Among many local-level initiatives, the ecovillage concerns human actions and forwards sustainability. The research seeks a better understanding of the ecovillage's sustainability to mitigate the sustainability gap.

The research was three-folded. The first part presented literature review of the ecovillage and developed three themes- resource management, community organisation and knowledge sharing, based on the collaboration between EVs and mainstream society. The second part presented Social System Theory as a supplement to the qualitative research process and reflect on the ecovillage's sustainability concerning its relationship with mainstream society. The third part comprises multiple case studies: Schloss Tempelhof, Hurdal Ecovillage, Bandipur Bazar and Jhong. They were analysed by reflecting on the narratives, EV themes, cultural value, and regional cooperation.

The comparative analysis of cases illustrated different forms of sustainability in EV themes. Despite the collaboration with mainstream society, each case presented a unique process of collaboration. In Schloss Tempelhof and Jhong, actions were translated as parts of policies. In Hurdal EV, actions were transformed as per policies. In Bandipur Bazar, actions were transited into policies. They illustrated the difference in collaboration with mainstream society according to their ability to maintain local values and extents of their regional cooperation.

The research concludes that actions serve two purposes- problem-solving and maintaining the societal values, and a criterion for the mitigation of the sustainability gap. Ecovillages remain intact through values and store the knowledge of means-selection in social norms, transferable across space and time. Furthermore, the mitigation of the sustainability gap requires understanding actions as the link between values and policies, and their interpretations through concrete entities. The research also interpretes the planning process as a causality of a selection of means, and goal settings based on local values and mainstream policies. Finally, from the practitioner's perspective, the research reveals some unexplored aspects of EV's sustainability.

# ACKNOWLEDGEMENT

# TABLE OF CONTENTS

<b>ABSTRACT .....</b>	<b>i</b>
<b>acknowledgement .....</b>	<b>ii</b>
<b>List of Figures .....</b>	<b>vii</b>
<b>List of Tables .....</b>	<b>ix</b>
<b>List of Acronyms.....</b>	<b>x</b>
<b>Chapter 1- Introduction .....</b>	<b>1</b>
<b>1.1 The research area and topic .....</b>	<b>1</b>
1.1.1 Different philosophical presuppositions of the interpretations of sustainability .....	3
1.1.2 Cross-cutting challenges .....	6
1.1.3 Sustainability gap .....	9
<b>1.2 Objectives of the thesis .....</b>	<b>12</b>
<b>1.3 Research question .....</b>	<b>12</b>
<b>1.4 Setting the scene.....</b>	<b>12</b>
1.5 Thesis Outline.....	14
<b>Chapter 2- Literature Review-Ecovillage (EV) .....</b>	<b>16</b>
<b>2.1 Introduction .....</b>	<b>16</b>
<b>2.2 Method.....</b>	<b>18</b>
<b>2.3 Theory Perspectives of EV.....</b>	<b>19</b>
<b>2.4 Historical Development of EV: An implementation perspective .....</b>	<b>25</b>
<b>2.5 Findings and Results .....</b>	<b>27</b>
2.5.1 Resource Management (RM) .....	28
2.5.2 Community Organisation (CO) .....	30
2.5.3 Knowledge Sharing (KS) .....	31
<b>2.6 Discussion .....</b>	<b>32</b>
2.6.1 EV and Cultural Value .....	33



2.6.2 EV and Region .....	36
<b>2.7 Inferences .....</b>	<b>39</b>
<b>Chapter 3. Research Methodology .....</b>	<b>40</b>
<b>3.1 Research Approach .....</b>	<b>40</b>
<b>3.2 Qualitative Research as a Process .....</b>	<b>41</b>
3.2.1 Phase One- The researcher’s position regarding context- politics and ethics of research .....	42
3.2.2 Phase Two- Theoretical framework .....	47
3.2.3 Phase three- Research Design- Case Study .....	51
3.2.4 Phase four- Methods of Data Collection and Analysis .....	57
3.2.5 Phase five: - Knowledge transfer from the field works to analysis .....	74
<b>Chapter 4-Literature Review-System Theory .....</b>	<b>79</b>
<b>4.1 Introduction .....</b>	<b>79</b>
<b>4.2 Three Types of Systems Theory .....</b>	<b>83</b>
4.2.1 General System Theory- Ludwig von Bertalanffy .....	83
4.2.2 Autopoietic[iv] System Theory- Maturana and Varela .....	84
4.2.3 Social System Theory- Talcott Parsons .....	85
<b>4.3 Social System Theory as a Tool for Comprehensive Ecovillage Analysis .....</b>	<b>86</b>
<b>4.4 Parsons' Social System Theory .....</b>	<b>89</b>
4.4.1 Introduction .....	89
4.4.2 The Concept of Analytic Realism .....	89
4.4.3 Structural and Functional Analysis .....	90
4.4.4 Analysing Society from the Social System Theory .....	94
4.4.5 Some critical aspects of SST .....	99
<b>Chapter 5-Case Study .....</b>	<b>103</b>
<b>5.1 Schloss Tempelhof, Stuttgart, Germany .....</b>	<b>104</b>
5.1.1 Introduction .....	104
5.1.2 Method.....	106
5.1.3 Findings and Analysis- Historical Development of Schloss Tempelhof.....	107

5.1.4 Findings and Analysis- Based on the EV Themes .....	117
5.1.5 Inferences .....	123
<b>5.2 Bandipur Bazar, Tanahun, Nepal .....</b>	<b>127</b>
5.2.1 Introduction .....	127
5.2.2 Method.....	129
5.2.3 Findings and Analysis- Historical Development of Bandipur Bazar .....	130
5.2.4 Findings and Analysis- Based on EV Themes .....	139
5.2.5 Inferences .....	146
<b>5.3 Hurdal EV, Norway.....</b>	<b>149</b>
5.3.1 Introduction .....	150
5.3.2 Method.....	151
5.3.3 Findings and Analysis- Historical Development of Hurdal EV .....	152
5.3.4 Findings and Analysis- Based on EV themes.....	161
5.3.5 Inferences .....	167
<b>5.4 Jhong, Mustang, Nepal.....</b>	<b>171</b>
5.4.1 Introduction .....	171
5.4.2 Methods .....	173
5.4.3 Findings and Analysis- Historical Development of Jhong.....	174
5.4.4 Finding and Analysis- Based on EV themes .....	184
5.4.5 Inferences .....	196
<b>5.5 Comparative Analysis of Four Cases Based on EV Themes, Cultural Value and Regional Cooperation.....</b>	<b>201</b>
<b>6. Discussion-Thematic Analysis .....</b>	<b>208</b>
<b>6.1 Findings from the EV Research .....</b>	<b>210</b>
6.1.1 Resource Management .....	210
6.1.2 Community Organisation .....	214
6.1.3 Knowledge Sharing .....	219
<b>6.2 Findings from Traditional Community-Jhong .....</b>	<b>222</b>
6.2.1 Cultural Value .....	223
6.2.2 Regional Cooperation .....	227
<b>7. Conclusion and Implications .....</b>	<b>231</b>

<b>7.1 Conclusion .....</b>	<b>231</b>
<b>7.2 Revisiting Research Questions .....</b>	<b>231</b>
<b>7.3 Reflection on Ontological, Epistemological Commitments and Methodological Implications through Hermeneutics .....</b>	<b>234</b>
<b>7.4 Contributions to Understanding Sustainability Gap at Conceptual and Methodological level .....</b>	<b>238</b>
<b>7.5 Contributions of EV concept to the planning practice.....</b>	<b>242</b>
<b>References .....</b>	<b>253</b>
<b>GLOSSARY OF TERMS .....</b>	<b>266</b>
<b>APPENDIX .....</b>	<b>268</b>
<b>Appendix 1: - Three Spheres of Sustainability .....</b>	<b>i</b>
<b>Appendix 2:- Seventeen Sustainable Development Goals.....</b>	<b>ii</b>
<b>Appendix 3:- The Sustainability Mandala- Ecovillage Concept .....</b>	<b>iii</b>
<b>Appendix 4:- Questionnaire Sample to Schloss Tempelhof.....</b>	<b>iv</b>
<b>Appendix 5:- Summary of Interviews, Observations and Reflections on Trip to Schloss Tempelhof .....</b>	<b>v</b>
<b>Appendix 6:- Interview Sample to Bandipur with Manoj Rajopadhyay, Project Manager of BECTP .....</b>	<b>vi</b>
<b>Appendix 7:- A Field Visit Report to Bandipur .....</b>	<b>vii</b>
<b>Appendix 8:- Questionnaire Sample to Hurdal EV .....</b>	<b>viii</b>
<b>Appendix 9:- Interview Sample with one of the Respondents in Jhong .....</b>	<b>ix</b>
<b>Appendix 10:- Endogenous Environmental Governance Structure of Jhong .....</b>	<b>x</b>
<b>Appendix 11:-A Field Visit Report to Mustang .....</b>	<b>xi</b>
<b>Appendix 12:- Reflection of the Workshop in Kagbeni .....</b>	<b>xii</b>

## LIST OF FIGURES

Figure 1. The three roles of culture (represented in orange) in sustainable development (the three circles represent the three pillars). Source:- Dessein et al. (2015) .....	33
Figure 2. Five phases of the PhD research with changing research contexts.....	78
Figure 3 Bird's Eye View of Schloss Tempelhof. Source: - <a href="http://www.lebendige-landwirtschaft.de/">http://www.lebendige-landwirtschaft.de/</a> .....	104
Figure 4. Administrative location of Schloss Tempelhof.....	104
Figure 5 Map showing location of Schloss Tempelhof in Kressberg Region, Germany .....	105
Figure 6. The existing residential blocks and community hall after renovation .....	110
Figure 7 The Earthship Building .....	115
Figure 8. Bird's eye view of Bandipur Bazar .....	127
Figure 9. Bandipur and its altitude .....	127
Figure 10 Map showing location of Bandipur Bazar, Bandipur Rural Municipality, Nepal	128
Figure 11. The conserved central square of Bandipur Bazar .....	134
Figure 12. Renovation of one of the old structures to rehabilitate for Hotel Management course with the joint venture of Global Academy for Tourism and Hospitality. ....	137
Figure 13. Site Plan of Hurdal EV showing garden area and residential blocks.....	149
Figure 14 Map of Hurdal municipality and the Hurdal Ecovillage, Norway. Source: - Westskog, Winther, and Aasen (2018).....	150
Figure 15 Site Plan of garden area showing stores, pig grazing areas, farm, chicken grazing areas, Juice areas, fruit orchards, concert area, lamb's grazing areas, and market (Source: - <a href="https://www.hurdalecovillage.no/grden-1">https://www.hurdalecovillage.no/grden-1</a> ).....	154
Figure 16. A typical Shelter house from outside.....	162
Figure 17. A usual gathering among the residents of Hurdal EV with people of different ages .....	166
Figure 18 Jhong's landscape highlighting barren land.....	171
Figure 19 Map of Annapurna Conservation Area (ACA) with Jhong .....	172

Figure 20. Participating workshop at Kagbeni on local entrepreneurship at Lower mustang regions including Jhong.....	173
Figure 21 Jhong's landscape showing dense settlement and agriculture in the periphery.....	185
Figure 22 Compact settlement of Jhong.....	194
Figure 23. Conceptual scheme illustrating action at the interface between value and policy after adapting social system-environment relationship .....	239
Figure 24 Hermeneutic representation of value-action-policy relationship. ....	241
Figure 25 The graphical representation of planning process from the practitioner's perspective with action-situation as the frame of reference. ....	244
Figure 26 The practitioner's oscillating roles as a researcher and a professional in the planning process (Adopted from Singh and Keitsch (2019) .....	250

## **LIST OF TABLES**

Table 1. The evolution of EV concept illustrating vision to mainstream development .....	24
Table 2. Three themes of patterns of social interactions based on the literature review of EV .....	28
Table 3 Comparative Analysis of four cases based on EV themes, cultural value maintenance and regional cooperation .....	206
Table 4 Comparative Analysis of four cases based on EV themes, cultural value maintenance and regional cooperation. ....	207
Table 5. Summary of the Thematic Analysis of the Findings from Four Different Cases....	208

## **LIST OF ACRONYMS**

**ACA-** Annapurna Conservation Area

**ACAP-** Annapurna Conservation Area Project

**AS-** Aksje Selskap (English: - Company Limited)

**AST-**Autopoietic System Theory

**BECTP-** Bandipur Eco-Cultural Tourism Project

**BSDS-** Bandipur Social Development Society

**CAC-** Citizen Awareness Centre

**CAMC-** Conservation Area Management Committee

**CBO-** Community based organisations

**CMA-** Community Medicine Assistant

**CO-** Community Organisation

**CPR-** Commonl Pool Resources

**CTDP-** Comprehensive Town Development Plan

**CTEVT-** Council for Technical Education and Vocational Training  
**DDC-** District Development Committee

**eG-** eingetragene Genossenschaft (German: English- cooperative society)

**EV-** Ecovillage

**FMSC-** Forest Management Sub Committees

**GST-** General System Theory

**IOE-**Institute of Engineering

**INGO-** International Non- Government Organisations

**KS-** Knowledge Sharing

**MTMP-** Municipal Transport Master Plan

**NGO-**Non- Government Organisations

**NTB-** Nepal Tourism Board

**NTNC-** national trust for nature Conservation

**NTNU-** Norwegian University of Science and Technology

**NRMP-** Natural Resource Management Project

**RM-** Resource Management

**SA-** Samvirke (Norwegian: English- cooperative)

**SST-** Social System Theory

**ST-**Schloss Tempelhof

**TMSC-** Tourism Management Sub Committees

**TRPAP-** Tourism for Rural Poverty Alleviation Programmes

**UNCED-**United Nations Conference on Environment and Development VDC- Village  
Development Committee

**WCED-** World Commission on Environment and Development



# CHAPTER 1- INTRODUCTION

This chapter outlines the background of the PhD research's topic and research questions. It sets the scene for the overall research process.

## 1.1 The research area and topic

The modern world is bound to the environmental dilemma of continuous growth with limited resources. Further, human actions have led to irreversible impacts on natural resources and the ecosystem. According to (Mann, 2018), there are two ways of tackling the situation. They represent intellectual concepts that different institutions apply globally to meet the environmental dilemma. Referring to Vogt, one way is to drastically reduce consumption and limit the human population (Mann, 2018, p. 3). Thus, if it takes more resources than what the ecosystem recovers, the unavoidable result will be global disasters in various continents. Referring to Borlaug, another way is to view the proper application of science and technology as a means to develop an egress of resource scarcity (Mann, 2018, p. 3). Thus, creating or generating prosperity and knowledge through innovations can resolve the environmental dilemma.

It seems that both concepts are concerned with addressing the capacity of the ecosystem to support, maintain, or endure the balances of the resource demands. The capacity to support, maintain or endure refers to 'sustainability' (Kopnina & Shoreman-Ouimet, 2015, p. 3). However, both concepts have contrary assumptions in addressing environmental dilemma concerning human prosperity and limited resources. The former one sees prosperity as the cause of the environmental dilemma; the latter one sees it as an innovative way to get out of the environmental dilemma. In reconciling contradictions between the two concepts, sustainable development appears as a concept seeking to meet both human prosperity and the conservation of natural resources. Sustainable development, thus, is defined as: 'Development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (WCED, 1987, p. 41). So often, sustainability or sustainable development refers to a concept that minimises the impact of human prosperity on natural resources and ecosystem. Sustainability is firmly embedded in the language of development—locally, globally, and every level between (Gibson, 2005). Some authors claim that sustainability has different levels: personal, communal and global (Waerther, 2014).

Since Brundtland's definition, the development discourse uses sustainability to support environmental protection and economic prosperity simultaneously. The idea to meet human needs (prosperity), and simultaneously conserving and even enhancing, natural environment (resource conservation) seems an attractive proposition. The development-discourse and this study synonymously use the terms sustainability and sustainable development (SD). *'Literally, the word sustainability means the capacity to support, maintain or endure, it can indicate both a goal and a process'* (Kopnina & Shoreman-Ouimet, 2015, p. 3). *'Sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs'* (WCED, 1987, p. 41).

Post WCED, sustainable development has been integrated into thousands of initiatives as the core element of policy development of governments, international agencies, and business organisations at local, national and global levels in an attempt to address different aspects of environmental dilemma (Mebratu, 1998). The application of sustainable development shows, on the one hand, the popularity of the concept, on the other hand, the plethora of the concept's definitions. In 2017, the United Nations introduced 17 sustainable development goals. However, these development goals are general and cover a limited scope. As a result, the actions are prescriptive and based on general guidelines irrespective of the contextual background (see Appendix 2).

In recent years, ecovillage (EV) has ensured integrated SD as a grass-roots outcome at a local level because of the theoretical and empirical enquiries of SD in the concept. What started as small communities forming together at local levels as an anti-globalisation movement has transformed into a Global Village network (GEN) with the vision of identifying, assisting and coordinating the communities to acquire, social, spiritual, economic and ecological harmony (GEN, 2018; Joubert, 2016). The GEN was officially launched at the UN-HABITAT Conference in Istanbul 1996. Since then, it has been continuing as one of the partners. GEN aims to encourage building sustainable communities across the world, facilitate the exchange of knowledge and information and foster global cooperation and partnerships (GEN, 2018).

An impetus to undertake the study is that the term 'ecovillage' has existed more than forty years. and proliferated under a plethora of facades. A web search of the term 'ecovillage' results into intentional communities in the industrialised North, community development projects in the poorer countries of the South, luxury tourist destinations worldwide, large-scale developer-led housing projects, and education centres. The dubious facades of the ecovillages, just like

sustainability, has the benign nature of interpretations of 'eco' - disconnected from the socio-economic organisations of the resident community.

The term ecovillage has become synonymous with a sustainable built environment, but in the process, was lost with clarity of definition. The blurry definition has resulted in the incoherence and lack of tools for EV to become a part of mainstream society concerning government rules and policies. The EVs are often attuned to sustain their identity and purpose as a group to maintain social, ideological, and normative distance to the surrounding community. Some EVs have become an example of 'sustainability surrogacy' of specific belief systems. Consequently, ecovillages often struggle to interact with mainstream society and have continued to stay on the periphery of the mainstream society, local government's regulations, and policies (Dawson, 2010). As a result, despite the admiration for the noble concept of a sustainable community, they are marginalised, absorbed or crushed by the mainstream society. The Ecovillage's relationship with the mainstream society makes it an arena of investigation of the study.

### **1.1.1 Different philosophical presuppositions of the interpretations of sustainability**

Even if various historical and contemporary concepts on sustainability exist, there is no universally accepted definition or meaning of the term and is often criticised or disputed (Gibson, 2005). Most of the effort of interpreting the concept is, to a large extent, influenced by the fundamental beliefs of specific groups of organisations making their interpretations (Gibson, 2005; LeLe, 1991). In recent years, sustainability concepts have been the subject of much theoretical and empirical enquiry, mostly responding to the need to taking an integrated approach to implementing sustainable development (Dalal-Clayton & Sadler, 2014). However, new frameworks, criteria, and analysing tools have been developed to evaluate progress towards sustainability. The tools aim to reform the existing development process that aims at measuring and assessing sustainability in terms of advocates' goals or achievements. Such an attempt in assessing sustainability narrows down the sustainability research to theorise the concept, mainly by describing it in different disciplinary silos, rather than understanding it in a contextual background. As a result, despite the acknowledgement of sustainability or sustainable development on the highest political level, efforts tend to be on resolving issues that restrain sustainability to a short-term focus and single disciplinary. It represents the incoherence in SD's interpretation of the future. The concerning authorities face challenges on

decisions in identifying contextual ways to integrate sustainability in development interventions.

It appears that diverse sustainability interpretations in policy-making comprise different implicit and explicit philosophical assumptions. Since WCED's definition of sustainable development, a plethora of initiatives is developed at action or policy levels at all scales (local, national, and global). Many of the initiatives have different philosophical assumptions on how they should address various aspects of environmental concerns.

(Nieto & Durbin, 1995) have identified five different philosophical assumptions of SD's interpretation:

*a) The quantifiers:* - This philosophical presupposition reduces the complexity of the sustainable development process to mathematical simplicity (Nieto & Durbin, 1995). The operational definitions perceive sustainable development that demand data arrive at a rational decision-making process. Thus, even though the policy-making process is political, the policymakers need to formulate valid objectives with adequate information to make rational choices in the decision-making process (Nieto & Durbin, 1995). Epistemologically, the value factors are separated from the policies to make them bias-free and then to base the decisions on objective facts. One example of this assumption is the concept of the circular economy.

*b) The Neo-Marxists:* - This philosophical presupposition is suspicious of the capitalist nature of conventional development paradigms. It points out that sustainable development concepts do not accord with the needs of the poor and developing countries. Nieto and Durbin (1995, p. 3) point out that sustainable development ignores the environmental differences between developed and developing countries. Sustainable development requires the participation of poor people in meeting their aspirations from sustainable development. The developing countries need the power to set their own goals- presumably, ones that will not damage their environments. As such, it appears that sustainable development is a compromise between the conservation of the natural environment and the pursuit of economic growth. One example of this assumption is the concept of sustainable livelihood.

*c) Anti-Development Culture Critic:* - This philosophical assumption bases interpretations on cultural critics of technology-led development and focuses on the cultural values of people. This assumption contrasts between technology-oriented modern value systems and nature-experience based pre-modern value systems. The integration of native/indigenous cultural knowledge of understanding the environment is vital to arrive at a genuine sustainable

development rather than through technology-led prosperity. It assumes that pre-modern ideals and ways of seeing, thinking, and experiencing nature are more valuable for the long-term sustainability of the natural world. An example based on this philosophical assumption is that the concept of heritage conservation led development in the cultural landscape.

*d) Deep Environmentalists:* -This philosophical underpinning shares many assumptions of cultural critics; especially the biocentric assumption that links human survival to the ecosystem existence. However, as the name suggests, it focuses more on environmental values, not cultural values; the human system is a part of the biotic system. It emphasises protecting the self-regenerating capability of the ecosystem from human development (Nieto & Durbin, 1995). An example from this assumption is the concept of nature conservation.

*e) The Brundtland Report:-* Nieto and Durbin (1995, p. 1) identify the Brundtland Report's definition as a practical definition that would lead to equity in access to the resources and the distribution of costs and benefits. The two most prominent perspectives presented in the Brundtland Report are from economists on fulfilling the needs of the current generation and environmentalists on maintaining the reserve of resources for future generations. As such, sustainability appears as a compromise between attempts to fulfil the needs of present generations as a part of the global economy and attempts to balance developmental and environmental policies (Nieto & Durbin, 1995, p. 6). The previous four philosophical assumptions could appear as the adaptation of Brundtland's definition based on policymakers' intentions. The Brundtland Report's definition, which has practical intentions, has gone through different iterations based on different objectives. Two examples based on this philosophical assumption are the Millennium Development Goals and the Sustainable Development Goals.

EV concept- if not the specific term- is conceived as a part of a longer-term development of the countercultural movements of the 60s and 70s, such as hippies' communities and the intentional community movement. Ecovillage has risen as a response to the social fragmentation of modern life, alienation and increasing consumerism- the anti-development culture critic philosophy. The EV concept draws most of its measures from the eastern philosophy of connecting nature and society and by the western rational thoughts on environmental protection. The EV's philosophy reflects the way of living based on this spiritual knowledge of communal lifestyle in the natural setup through shared various activities, artistic expression, cultural activities, rituals, celebrations, and sense of community (Jackson, 1998).

EV's historical link to the counterculture movement renders enough reason to a sceptical eye on the contemporary ecovillage concept. This philosophical assumption has always created the doubt in accepting the EV as a part of mainstream society. As such, EVs were primarily neglected as nothing more than just some kind of social experiments. They have remained outside or at the margin of the mainstream society. However, they are increasingly forwarding in reducing human footprint being an example to the mainstream society while showing alternative ways of organising the practical life without exhausting nature (Chitewere, 2006; Karner, 2011). The EV focuses on keeping the community together in a socially harmonious, economically practical, and environmentally sustainable settlement. It demonstrates that human beings can live together with each other and the natural resources- reflecting the practical applications of Brundtland's definition.

The current EV concept reflects the philosophical assumption of Brundtland's definition of reconciling human prosperity and resource conservation. The sustainability of EV represents an attempt not to return to an idealised past or solutions to combat resource consumption. Instead, the sustainability of the Ecovillage concept has practical implications for improving the quality of life while promoting conservation and optimal utilisation of natural resources through community-level initiations. Thus, the EV also gives effect to Rene Dubos's slogan '*Think globally, acting locally*'.

EVs can include traditional indigenous villages, whose members focus on environmental and social sustainability. It can include intentional communities, whose members share a sustainable lifestyle and translate the community characteristics (lifestyle, commitment and understanding) into community activities (Ashlock, 2010). It can also include the new communities; whose members focus on human prosperity but through economic sustainability. The EV concept might include different dimensions: environmental friendliness, economic alternatives, social networks, and organisations that aim to achieve self-sufficiency to a greater or lesser extent.

### **1.1.2 Cross-cutting challenges**

The emergence of SD's different philosophical assumptions illustrates, on the one hand, its growing influence in national and international policy development, on the other hand, its criticism as a catchphrase that would eventually wither out (Wessels, 2006). Nonetheless, Nieto and Durbin (1995) are optimistic on the coherence in Brundtland's definition in contrast to the criticism as the facemask of development. It seems that Brundtland's description allows the

compromises among policymakers with different philosophical assumptions and diverse stakeholders with different worldviews.

Under such circumstances, the challenge is to discover a scenario that enables to link the actors' livelihood to social and economic activities without exploiting nature- interlinking Environment, Economy and Equity. The solution lies in not looking at the environmental problem as disconnected from the way socio-economic organisations organises. Nevertheless, the solution is on reflecting the social actors' challenge of protecting local values, beliefs, and identity (cultural values) (Nurse, 2006; Singh & Keitsch, 2014) by integrating environmental concern in the socio-economic organisations. The study indicates some of the cross-cutting challenges at conceptual and methodological levels concerning sustainable development.

*a) Conceptual level:* -The generally understood SD concept is based on the recognition of the supposedly separate existence of three/four dimensions- economy, society, environment, and culture. For example, triple/quadruple bottom line, three/four-pillar model (see Appendix 1 and Appendix 4). Different action integrates the four dimensions to foster economic growth, social equality, and reduction of adverse environmental impacts. In the model, the interactive zone of three different dimensions is the solution area of integration, where sustainability is achieved. It means that the ultimate objective of sustainability is the full integration of the natural, economic, social and cultural dimensions in given contexts.

However, in the real world, there are trade-offs among different policies and thus seems to maximise only one objective at a time (Mebratu, 1998). For example, the practitioners with knowledge of environmental practices shall develop objective on ecology as the starting point and then reflect them in their solutions (action) frameworks. Knowingly or unknowingly, the solutions seek to impose their views of goals and procedures on the decision-making process to other dimensions: social, cultural and economic- a reductionist tendency.

The EV concept claims a broader interpretation of the sustainability from a system's perspective by emphasising connections and relationships between activities, processes and structures. The Ecovillage concept envisions a sustainable community as a microcosmic and a full functioning society.

However, to what extent the concept facilitates dynamics of interaction according to the contextual demands over different spatiotemporal conditions is still an area of investigation. The concept is still non-illustrative on the ways of interaction between the activities, processes and structures across different spatiotemporal conditions - a whole system challenge. As such,

the concept is still a linear thinking process of the bottom line model. The concept more on achieving specific ideology based goals for sustainability rather than achieving the state of sustainability on dynamic spatiotemporal conditions. The concept freezes the dynamics of interactions within the fixed microcosm. As such, the EVs have remained primarily self-reliant, drawing upon the resources of its members as an alternative space for mainstream society.

*b) Methodological level:* - The above-mentioned conceptual shortcoming refers to the reductionist epistemological foundation. In practice, there are two ways to comprehend sustainability concept: first, the policy is taken as the conceptual point of departure (whole), and actions (parts) as an addition to fulfilling the policy; second, different sustainable actions (parts) can be taken as a point of departure and consider policy (whole) as a summation of actions through replication and scaling up. From the planning perspective, the former approach refers to the top-down approach while the latter one to the bottom-up approach. Both the approaches tend to miss an important aspect- interaction and coordination among different means across the three dimensions of the sustainability in actions and policies to find solutions. In the real context, the actions' execution is transdisciplinary and relational. Therefore, the interactions do not limit to a specific spatiotemporal boundary; yet is often prevalent in existing conceptual schemes of sustainability. The interaction is dynamic across spatiotemporal uncertainties and diversity.

The ecovillage concept bypasses the spatiotemporal uncertainties. Despite the ecovillages' noble focus on people's desire to live a prosperous life in a community close to nature, they are still struggling with broader society and local government's regulations and policies. The policies and regulations have a profound impact on the people's interpretation of a prosperous life in a community close to nature, and eventually, the state of sustainability. The policies represent the environing conditions of spatiotemporal uncertainties, that influences the people's interpretation and interactions. The concept involves the separation of society from polity and economy.

Methodologically, the EV lacks holistic system thinking, i.e. how the EV actions coordinate to the policy and how the policy relates to the EV's vision concerning sustainable development. As such, despite the claims that EV has developed a new model for living sustainably, they have become the objects of scrutiny and suspicion.

The challenges at the methodological level illustrate the prevailing epistemological dualities that characterise the sustainability gap: subject vs object, practice vs theory, contextual vs



general, local vs global, and action vs policy in the conceptual shortcomings. Hereof, there is a growing consensus about the need for a new way of scientific thinking based on the transcendence across different empirical references. The scenario puts Ecovillage as the arena of investigation for understanding the sustainability gap in this study.

### **1.1.3 Sustainability gap**

Even though developed and developing countries and other institutions firmly embed sustainability in international policy and widely refers to the strategies and plans, its implementation has proven difficult. It continues to present significant challenges for government, industry and global community (Dalal-Clayton & Sadler, 2014). Development is a complex, sometimes contradictory and always multifaceted phenomenon (Nieto & Durbin, 1995). It results in multiple facades of development depending on the intentions, aspirations, and objectives of policymakers. Sustainable development often subjects to different and conflicting interpretations and illustrate epistemological dualities.

The scenario of multiple interpretations based on different philosophical assumptions has direct impacts on realisations of sustainable development in different contexts. The impacts are visible, for example in implementing different actions at a local level, where those carrying the practices, have to deal with both policies and actions simultaneously (See Joshi & Rajopadhyay, 2007). The environmental dilemma is profound in real scenarios. Policies and actions are often the results of compromises and concessions to the pressures from advocacy groups, affected interests, and other political powers. They define sustainability and development in ways that befit their agendas (Dalal-Clayton & Sadler, 2014; Gibson, 2005; LeLe, 1991), making it challenging to implement actions on the ground.

For example, Agenda 21 was an ambitious compilation of officially recognised needs for action with detailed action programs, with cost estimates for their implementation. In 1992, the United Nations Conference on Environment and Development (UNCED) prepared it in Rio de Janeiro. The compilation included an extensive list of sectoral concerns like poverty reduction, technology transfer, climate change, and hazardous waste disposal. However, in 2002 World Summit in Johannesburg, there were only a few progress reports. In practice, the Agenda 21 illustrates that sustainability integration in various strategies and actions under public policies is difficult. The public policy making process is framed and steered in myriads of influenced rules and procedures, and disciplinary theories. Regulations and procedures provide criteria on how to evaluate and integrate sustainability considerations, but they are of little help.

The sustainability definitions do not provide tools conceptually and methodologically that allow practising sustainability at the local level's socio-economic organisations. As a result, many sustainability initiatives lose ground and confidence in positive outcomes because the sustainability theories or policies do not facilitate actions that inform context. There is a clear gap in conceiving sustainability in the policies and perceiving sustainability in the actions.

The solution lies in not looking at the sustainability disconnected from the socio-economic organisations on the ground but questioning the existing approach of conceiving the socio-economic organisations concerning environmental problems in the sustainability policies. It indicates consideration of the diverse interpretations of sustainability, mostly because of the complexity of the problem and diverse perspectives- a spatiotemporal uncertainties. This means that the interpretations of the sustainability may change across space and time. The consideration would pave the way to explore the embeddings of sustainability in different forms and contents of the actions and connect to the socio-economic system organisation at the local level. It also reflects on sustainability's interpretation that elevates the status of the environment and the socio-economic organisation as a crucial part lifestyle in a community above that of the policies' rule-based interpretations. The study sees this as one of the biggest challenges: to build and nurture a community that perceives sustainability as a part of the communal lifestyle by connecting environment with the socio-economic organisations.

So far, ecovillages have risen around the world as a response to ensure sustainability at a local level by elevating environment as a part of socio-economic organisations of the community. Ecovillages have attempted to create meaningful, alternate and sustainable models. The models relate to promoting sustainable local economies, organic and locally-based food production, participatory, community-scale governance, decision-making processes and conflict resolution processes, community building, international solidarity and global networking, holistic and whole-person education (Andreas, 2012; Christian, 2003; Dawson, 2006, 2010). The EVs intends to change the society by promoting and practising the sustainable living model underpinned by the shared values.

The EVs have the challenge to become less insular and more enmeshed in the fabric of their bioregions (Dawson, 2010)- a whole system challenge. There has been a continuous effort in the contemporary ecovillage concept to overcome the challenge of integration in diverse ways. The GEN offers a variety of training and education programmes to other ecovillages, schools, and corporations on sustainable practices and community building. Such initiations have opened doors to contact within the local region and at the global level- a bottom-up approach.

Even so, the EVs has remained on the margin of the mainstream society with no real entry point to engage in the crucial debate of mainstream sustainability. There are instances of interactions and sometimes struggle with broader society and local government's regulations and policies (Dawson, 2010). The Ecovillage's vision come from a higher-level guiding vision from GEN in the form of training and assistance. However, up to what extent the original vision is adhered to and revised, remains an epistemological duality: contextual vs general. Furthermore, the success and the replicability of the concept is also blurry because of its unproven track records, and infant history. Some of the ecovillages have dissolved in contemporary development.

Looking at how EVs are maintained and changing over time, the EVs face dilemma either to open themselves spiritually and socially or sustain their identity and purpose by maintaining a social, ideological, and normative distance to the surrounding society (Sargisson, 2012). The tensions may arise as the EVs tends to maintain their unique identity and distance from local context in a time where mainstream society is itself turning towards sustainability with their own values (Westskog et al., 2018). The EVs maintain their identity while perceiving sustainability in actions. The mainstream society may develop policies that conceive sustainability in the institutional framework governing region. The EVs philosophically have different interpretations of sustainability to the mainstream society that make the bridging challenging. The inability of ecovillages to engage with the mainstream society highlights the sustainability gap- how sustainability is conceived in policies relating mainstream society and how it is perceived in actions relating to EVs. The dilemma in the interpretation of sustainability across action and policy levels also represents the impact of spatiotemporal uncertainties concerning human's aspiration that change across different space and time.

In conclusion, moving out of mainstream society and 'doing our own thing', in villages, and communities neither makes a considerable impact to the sustainability discourse nor creates a sustainable lifestyle pertaining different spatiotemporal conditions. Instead, this would further spike the sustainability gap. What is evident is that ecovillages have developed and applied knowledge in core areas of sustainability. However, what is also apparent is that they need to be integrated within the mainstream development to address the spatiotemporal uncertainties. The critical challenge to Ecovillage once it makes a transition to a more locally based mainstream sustainable community is the sustainability gap. The process of the transition of the Ecovillages to the mainstream community makes it a valuable learning site for exploring the sustainability gap: theory vs practice; local vs global; action vs policy.

## **1.2 Objectives of the thesis**

According to Waerther (2014), there is a need to work with local incentives, which are practical and comprehensible at both action and policy levels to mitigate the sustainability gap. This research assumes that the Ecovillage could forward sustainability more effectively at both actions and policy levels. Even if the concept itself not an ideal solution to combat an unsustainable scenario, the research aims to arrive at an answer for mitigating the sustainability gap-actions vs policy, existing in the paradigms of sustainable development. As such, the study could provide information to develop conceptual and methodological frameworks that connect actions and policies through overlapping themes.

The results of this thesis could contribute to bridging academic and practical arena in understanding sustainability discourses. Academically, the results could allow the academician to look upon sustainability through a process that will enable the translation of local actors' subjective interpretation of sustainability into objective realities of the policies. Practically, the results may allow the practitioners to develop different measures, which are comprehensible to both actions and policies.

## **1.3 Research question**

The following research question with sub-questions was formulated to meet the study's aspiration:

*Overarching question*

*How can Ecovillage mitigate the gap between policy-making and action-implementation in sustainable development?*

*a) What keeps Ecovillage together?*

*b) What factors do affect Ecovillage's sustainability?*

*c) How are these factors interconnected?*

## **1.4 Setting the scene**

The study proposes that the process of transition of the EVs into mainstream communities presents empirical references to mitigate the sustainability gap. The transition process comprises of the EVs-bioregion interactions, where an attempt to arrive at an answer for sustainable solutions comprehensible for both EVs and bioregions is being made. This is to say that the transition process does not represent some attempt to scale up the EVs initiations in

other communities and bioregions. Instead, it aims to create a bridge across different knowledge claims that EVs and surrounding bioregions hold through what Westskog et al. (2018) call intermediary projects. The bridge represents different interactions through intermediary projects consisting of actions, and goals- a synthesis of different disciplines, and spatiotemporal uncertainties, such that they can be incorporated in the paradigms of sustainability.

Mebratu (1998) recognises holistic thinking based on a parts-whole relationship to understand the different knowledge claims on the sustainability gap.

Referring to what was said above, the starting point of the study is to position EV in holistic thinking. Then, EV becomes a part of bioregions related to the political, economic, social and cultural factors. The environmental concerns and solutions are linked to the institutional framework of those factors. All the actions are connected to the institutional framework pertaining to those factors.

There are two ways to see the transition of the EVs to the mainstream sustainable community. First, the transition can be a result of a transformation of the EVs under the existing institutional framework; the actions take place under the parameters set by the institutions. Second, the transition can be a result of the transformation of the existing institutional framework of the bioregions. The actions explicitly aim at the institutional framework. In the planning process, the former view refers to the top-down approach and the latter view as the bottom-up approach. The policies govern the institutional framework in terms of rules and procedures. At the same time, the actions comprise of the goal-oriented activities and the means to execute them.

Based on holistic thinking, the transition of the EVs into the mainstream community is relational and process-oriented- how interactions happen in actions and under policies. There are two types of interactions- interactions that involve actions creating solutions concerning the environment; interactions that involve policies aiming at the institutional changes. The former views interactions within the internal structure and involves the socio-economic organisations in the EVs. The latter views the interactions between EVs with external structure and involves institutional framework governing the regions.

Methodologically, actions and policies have different knowledge claims for interpretation of sustainability. Actions perceive sustainability through the coordination of activities and the means while achieving goals. Policies conceive the sustainability through rules and procedures that regulate the ways to achieve individual goals. Policies develop an idea of sustainability

through rules and procedures. Sustainability is then in abstract forms in the contents of policies. Actions understand sustainability through a series of activities and selected means to achieve goals. Sustainability is then concrete.

In practices, both actions and policies have (Schön, 1983) complementary roles in achieving concrete results in spatiotemporal conditions. Within the holistic system thinking, this relates to parts-whole relationship (see section 1.1). This research interprets the transition of the EVs into the mainstream communities as a relational and process-oriented where interactions between distinct parts happen for specific purposes. The interactions happen two ways: In internal structure (within EVs) to create solution-oriented actions and in external structure (within broader regions) to change policies under altered institutions.

The above analysis illustrates what a practitioner faces in professional practice- an epistemological duality of action vs policy of the sustainability gap. The practitioner's confrontation orient the study in reflecting the empirical references that facilitate the EV's collaboration with the mainstream society. The empirical references could be explained in terms of the practitioners' reflection of the interaction between objective conditions of policies and the subjective experiences of actions of the sustainability gap. Reflection is understood as an analytical tool that gives feedback either enhanced theory and experience, and the activities can be summarised as reflective practice (Schön, 1983). This is discussed more in detail in Chapter 3 Section ....

## **1.5 Thesis Outline**

The study presents a process-oriented exploration of the topic in different chapters. Chapter 1 introduces the thesis topic. The chapter seeks to present the problems associated with sustainability discourse. Chapter 2 introduces the literature review of EV. The chapter aims at developing the themes in the EV concept based on the evolution of EV as theoretical definitions and practical implementation perspective. The chapter ends with section 2.2, which presents the EV challenges, and the themes for analysis. Chapter 3 presents the overall methodology of data collection and analysis. Especially, section 3.3 presents a five-phased research process with a case study as a research strategy. Chapter 4 introduces System theory as a supplement to the research methodology after the first round of data analysis. Section 4.2 introduces and compares three different types of System theory. Section 4.4 presents Parson's social system theory as the analytical methodology for the case study. Chapter 5 presents four case studies.

Each case study presents the data in narrative forms, and then analyses based on three EV themes.

Eventually, System theory supplements the narrative and thematic analysis in the researcher's reflection. Sections 5.1, 5.2, 5.3, and 5.4 present Hurdal EV, Bandipur Bazar, Schloss Tempelhof, and Jhong as case studies, respectively. Chapter 6 discusses the findings from four case studies. Section 6.1 discusses linking policies to actions at orthodox communities, based on the findings from three communities ST, Hurdal, and Bandipur. Section 6.2 discusses how traditional communities like Jhong can contribute to integrating cultural value-based practices and actions into policies for innovations like EV. Chapter 7 presents the conclusion and implication of the thesis. The chapter presents the reflections on the researcher's role in addressing sustainability dilemma, the contribution of SST in understanding the sustainability dilemma and the contributions of the study in planning.

## **CHAPTER 2- LITERATURE REVIEW-ECOVILLAGE (EV)**

The chapter attempts to develop an understanding of the ecovillage in the context of sustainability by identifying and exploring key aspects, approaches, ambiguity, and dynamics in its interactions with the mainstream society. This chapter tries to analyse EVs translation process as an area of investigation for understanding the mitigation of sustainability. The chapter ends with providing the groundwork for a wider discussion of EVs translation process into the mainstream society and critical issues that EVs confronts both in internal and external structures.

### **2.1 Introduction**

The EV concept- if not a specific term- have the historical lineage to a utopian ideal or a model. The EV concept believes in a community of like-minded people, who chose to live close enough to each other to carry out a shared and sustainable lifestyle and translate the community characteristics (lifestyle, commitment and understanding) into activities (Ashlock, 2010).

Usually, EV settlements are built around five central aspects: community; citizens initiatives; resource ownership; shared values; research centres (Dawson, 2010; Karner, 2011). The community refers to the connection to others and the feeling of their values and useful in societies. The communitarian impulse also stands for the desire to preserve the traditional values and ways of life against the forces of modernity. The citizens initiatives-as a concept-represents the members' desire to create ways of working together outside of the dominant mainstream arrangements. It reflects the members' desire to self-reliance that better meets their needs. The resource ownership reflects on the EVs desire to control over the resources to escape from the dependency of the global market. The shared value stands for EVs shared commitment, such as global justice, ecological restoration, rebuilding community. Some EVs even consider the term spirituality for the shared values. Finally, EVs are conceived as research centres for specific fields of expertise and exploration: such as appropriate technologies, permaculture, education, and decision-making process.

The EVs may share some of all of these attributes; what sets them apart is their explicit emphasis on the environment that provides fundamental principles of design and organisation (Christian, 2003). The EVs perceive themselves as a holistic, relying on the pillar model of sustainability upon which they balance practical efforts to create a balanced life (Chitewere, 2006; Christian, 2003). The above characteristics attribute to the ideal EVs, rather than the EVs defining characteristics.



The EVs have little emphasis on the social structure of older existing settlements that have an established communitarian impulse for decades or even longer. Their survival indicates that disregarding the practices and structures are missing the opportunity to build EVs on the already existing shared values of sustainable traditions. The resource ownership attribute isolates the EVs from the surroundings. Though some degree of self-reliance is desirable, a complete disconnection denies EVs to learn and exchange resource with surroundings. The EVs as research centres involves different activities and means ranging from buildings EVs to ethical finance, low impact living and sustainability education to share with the wider world. The topics of exploration are usually the bottom of the priorities of the unemployed and marginalised people, especially in the Southern World. As such, the goals and the consequent knowledge do not seem to be shared (Fotopoulos, 2000).

Fotopoulos (2000, p. 297) has explicitly highlighted that many EVs simply involve people in trying to build better circumstances for themselves, often in the rich world in quite self-indulgent ways. Fotopoulos (2000, p. 297) has gone far saying the EVs intentions as their overwhelming individualisms, concentrating on specific groups of people. The specific groups are like-cultural (Andreas, 2012) and socioeconomic backgrounds: well-educated people, middle-class individuals and families (Bundale, 2004). The argument is also supplemented by the EVs focus on prescriptive, and generic solutions and activities. Presumably, the centralising tendency of the EV concept concerning visions and activities could be better replaced with an attitude towards the mainstream that builds on solidarity and respects the differences (Andreas, 2013).

Today's EVs do not aspire to be isolated communities but intended to be linked in institutional networks of social, economic, cultural and political ties (Van Schyndel Kasper, 2008). As R. R. Jackson (2004, p. 26) has pointed out that 'the ideal ecovillage does not exist. It is a work in progress- a fundamental part of the new paradigm, where much is yet to be learned.' The evolution of the EV's definitions since its first definition highlights R. Jackson (2004)'s optimism of the work in progress. The definitions have evolved as the EVs confront the challenge associated with its implementation on the ground. Dawson (2010) has questioned in his quest to characterise the EVs if the EV concept has retained its true coherence when the term is being used to describe a variety of circumstances, visions and strategy.

## 2.2 Method

The first part of the chapter presents with the systemic review of literature related to EV. The extensive keyword search was carried out on the internet, online sources and in academic databases comprising the term 'Ecovillage'. The search resulted in various narratives and experiences of people, who have lived permanently or have stayed temporarily in those areas. There were also abundant scientific researches that focus on the EV concept and its implications on sustainability. The bibliography lists in those scientific papers were studied. Then, the resulting resources were categorised based on the papers' background: papers based on the visions of the EVs, papers based on the practices of EVs, and papers based on the scientific discourses of EVs.

In the second part, the narrative logics were developed to explore the evolution of EV as a concept based on theoretical and implementation perspectives. The information, actions, practices, experiences, narratives, and visions of EVs were categorised within three themes: community organisation, resource management, and knowledge sharing. The aim was to come up with different patterns of activities and practices in the three overlapping themes for developing an initial ground for understanding the translation process of EVs into mainstream society as an area of investigation for understanding and mitigating the sustainability gap.

In the third part, the critical issues associated with the EV-mainstream collaboration process are analysed. The study has assumed that the mitigation of the sustainability gap depends upon how the translation process is carried out. The two key issues come in fore concerning the translation process: Value and regional influences. The analysis continued with the understanding of the value in relations to the representation of culture in the bottom-line sustainability development framework. The section deliberately avoids the rhetoric discussion on other dimensions of sustainability. Accordingly, the chapter made the analogy of the EVs translation with the value represented in the translation process. The section also developed an understanding of EV concepts in terms of sustainability framework and significance of the value maintenance in the translation process.

Furthermore, the chapter also analysed the role of regional influences in the translation process. The chapter explored the EVs interpretation in terms of the regional influences, and contribution. The chapter ended with presenting the data analytical framework to collect and analyse different information for diverse cases.

### 2.3 Theory Perspectives of EV

According to Pathiraja (2007), the concept of EV has emerged as a model for sustainable human culture and as a living experimental laboratory to teach us about sustainable development. The EV concept was first introduced in 1991. It was defined as *'a human scale, full-featured settlement, in which human activities are harmlessly integrated into the natural world, in a way that is supportive of healthy human development and can be successfully continued into the indefinite future'* (Gilman, 1991, p. 10). The Gilman's earlier definition has reflected the concept's vision to build a sustainable community that is nevertheless human-scale in their components, diverse, and harmoniously integrated into the natural world. There are five key points in the definition: human-scale; full-featured settlement; human activities harmlessly integrated into the natural world; supportive of human development; continued into the indefinite future.

A human-scale refers to a size in which people can interact, are equal, know and be known by others. A full-featured settlement shall have all the major functions of normal living- residence, food, manufacture, leisure, social life and commerce. It does not justify EVs being a self-sufficient or isolated but focuses on cooperation among villages for sharing services- hospitals, jobs, airports, and others. The idea of harmless integration of human activities into the natural world brings the 'eco' into the ecovillage- humans do not dominate over nature. They rightly use the principle of cyclic use of material resources. The healthy human development refers to a balanced and integrated development of all aspects of human life-physical, emotional, mental, and spiritual. The idea of indefinite future reflects the idea of intergenerational continuity of the resource use.

The idea of indefinite future is also a part of the Brundtland Commission's 'sustainable development concept' when first introduced in 1987. The term, sustainable development has a strong bond to social wellbeing; it also underlines the importance of nature conservation as an essential factor for the wellbeing. Several researchers have argued that environmental protection is used as an alibi for social and economic growth. The definition of EV has envisioned a sustainable community through a practical implication of the sustainability concept on the local scale.

However, Gilman (1991) notes EV's challenges: bio-system, built-environment, economic system, governance, glue and whole-system challenge. The bio-system and the built environment challenges look to find ecologically friendly ways to integrate human activities

into the natural world. The economic system challenge refers to healthy human development by fair and non-exploiting economic activities. The governance challenge refers to the fair and non-marginalised decision-making process. Similarly, the glue challenge refers to the shared values to hold them together. Finally, the whole-system challenge refers to the changes in different areas of life. The evolution of the definitions over the period highlights the EVs struggle in dealing with the changes in different areas of life simultaneously. The challenge also reflects spatiotemporal uncertainties, because of the unpredictability of interaction of each area of change with other areas.

Dawson (2010) had said that the definition is too imprecise to work as a tight definition and is moreover aspirational than descriptive. It points towards a goal, which EVs seek to move rather than a state which any has yet achieved. The EV concept is analogous to the concept of sustainability: Sustainability is treated as a goal rather than a state. Dawson (2010, p. 36) has offered a strategic approach in defining EV as *'private citizens' initiatives in which the communitarian impulse is of central importance, that are seeking to win back some measure of control over community resources, that have strong shared values (often referred as spirituality) and that act as centres of research, demonstration and (in most cases) training'*. The definition reflects Dawson's attempt to produce the descriptive attributes that could characterise EVs.

Three key points try to manifest the abstractness of the Gilman's earlier definitions. They are community impulse, private citizens' initiatives, resource control, shared values, and research centres. The communitarian impulse reflects the human scale settlement that values each as a useful member of the community through common resource sharing. The private citizens' initiatives give the members independence to create a full-featured settlement in their ways of working together and needs, away from government and official bodies. The resource control responds to the integration of human activities into the natural world for a healthy human development that can be continued in the future.

One of the key features that Dawson (2010) has pointed out is the diversity of the EVs. The prescriptive measures of characterising what constitutes EV is not practical, given the heterogeneity of EVs across the North and the South. The heterogeneity is mostly visible on the way each EVs referred to a shared commitment-such as 'free-thinking', and 'tolerance towards the diverse beliefs' (Dawson, 2010). The community living got mostly inspirations from the spiritual knowledge or shared values of communal lifestyle through shared various activities, artistic expression, cultural activities, rituals, celebrations, and sense of community

(Jackson, 1998). In the North, the shared values of living with ecological principles mostly influence the communitarian impulse. In the South, the communitarian impulse mostly got inspirations from their shared values of reclaiming their cultural integrity, pride in tradition, a heritage of mutual aid, self-reliance and self-respect (Dawson, 2010). The concept of shared values also addressed the EVs' challenges of governance, and a sense of solidarity.

Furthermore, Dawson (2010)'s definition also characterises EVs not only as intentional communities to live in but also as training centres for people to learn about sustainable ways of a living- greener lifestyle (Dawson, 2010; Kunze & Avelino, 2015). Each EV represents a social and ecological invention centre for a specific field of exploration and expertise. The designation of EVs as research and training centres also indicates the diversity of problems, and their impulse to develop new ideas, technologies and models in the social organisations and then share with the wider world. The technological innovations are now connected to how the social organisations organise- a system perspective to see different areas and changes.

Regardless of the efforts, the definitions also highlight some key issues. The most notable one being its insular nature and thus unable to address the globalisation for an increased flow cheap, mass-produced goods. The EVs support different local economy niches that promote small-scale, and locally-based economies. The other one being the increasing influence of regulatory frameworks of the government and banking structures that tighten the citizens' led community development projects. The citizens cannot do what they want in the financing, built environment and infrastructures. The impacts are more prominent in food production and consumption: The food processing as per the regulation is impossible at a local level (Dawson, 2010).

Consequently, the EVs have remained small that has also questioned its identity as research centres and the community impulse through shared values. The growing trend has been towards the globalisation with concentrations of resources, and institutional frameworks have further left EVs towards the marginalisation from the main political dialogues. The EVs are developed as the intentional communities to promote a cooperative social lifestyle with a higher degree of social interaction (Pathiraja, 2007) and low impact to nature (Pathiraja, 2007; Sevier, Henderson, & Naidu, 2008). 'A residential or land-based intentional community is a group of people who have chosen to live with or near enough to each other to carry out their shared lifestyle or common purpose together' (Christian, 2003, p. xvi).

The above analysis points to a crucial point related to the Dawson (2010)'s definition- the integration of EVs into the fabric of their bioregions. The issue also reflects the limitation of EV's strategic definition on the questions of replicability and being resourceful for different strategies- compete in financial terms. The definition has limited the economy into some rational practices and activities that keep the money in the community, by circulating it through as many hands as possible, earning, spending and investing it in member-owned retail and service businesses and saving it in homegrown dimension (Dawson, 2006). However, it has a more significant role in terms of building social and natural environment.

Walker (2005) says that the 21st century is also about rediscovering what indigenous people have always known: interconnection with people and nature, and each action affects the whole. The Global South has instigated the need to incorporate the local culture, traditions and indigenous technology as well as promote self-sufficiency, environmental regeneration and community spirit (Olivier, p. 21). By accepting the local shared values, the EVs are also addressing the challenge of replicability in different contexts and the consequent enmeshing with the bioregions. The EVs are no longer only intentional communities but any traditional communities that thrive for self-sufficiency, supportive social network, low environmental impact, and most importantly already integrated into the bioregions, socially, culturally, economically, and environmentally.

Since 2016, EVs are defined as *'intentional or traditional communities, consciously designed through a locally owned, participatory process to regenerate social and natural environments. The social, environmental, economic, and cultural aspects are integrated into a holistic, sustainable development model that is adapted to local contexts. Ecovillages are rural and urban settlements with vibrant social structures, vastly diverse, yet united in their actions towards low-impact, high-quality lifestyles'* (Joubert, 2016, p. 10). In 2018, GEN has considered whole system design as the fifth dimension. Since 2020, it has reverted to 2015's definition, which has continued as the GEN's official definition of Ecovillage.

The definition is an attempt to integrate into the larger scale of mainstream society- a shift in EVs interpretation. The definition is the more strategic and process-oriented than the earlier goal and attribute-oriented definitions. There are three crucial points added in the definition: whole system design, culture and economy.

The definition has maintained its core goal of developing a social and natural environment through a local level participatory process. The definition has referred to the sustainability

framework (environmental, economic, social and cultural) holistically to regenerate of the social and natural environment. The holistic approach has given a new approach to the EV concept, which considers the social and natural environment as a whole system. The new definitions have reverted to the whole-system challenge that Gilman has identified in the earlier definition. Based on the whole systems thinking, the current definition presented whole system design as a central path for integrating social, cultural, ecological and economic dimensions through large-scale patterns of the activities and interactions. The approach also makes EVs comprehensible to the wider society- a step toward the mainstream society. In addition to the EVs' social and environmental attributes, the definition has also included cultural and economic dimensions as an integral part of achieving a natural and social environment.

The notion of culture in the earlier definitions of EV has a semiotic representation. The EV concept aims to develop a sustainable culture- as a counterculture to modernity: It is visible in the definitions and attributes of earlier EVs. A sustainable culture refers to a lifestyle based on shared values, a communitarian impulse and environmental integration. The current definition perceives culture as traditional and indigenous traditions, such as arts, music, popular culture, performing arts, customs, and heritage- in tangible and intangible forms, that respects the cycles of nature, and easy integration of human activities in nature. Several EVs conceive culture as a lifestyle of natural resource-based civilisation (Olivier), living in a close-knit with communities interacting intimately with the natural world, where each action affects the whole system (Walker, 2005). The cultural dimension of appreciation makes the EV approach more connected to the diverse mainstream.

Another important aspect of EV is the integration of economy dimension, which has not appeared in the previous definitions of EV. There are two reasons for integration. In developing countries, EVs provide sustainable alternatives to the mainstream economy in developing countries where economic growth is of utmost importance than a communal way of living. Furthermore, the inclusion also highlights the definition's reclaim ways of thinking about wealth and progress that include all aspects of life (GEN, 2018).

Table 1 highlights the evolution of EV's definitions. The evolution of definitions presents an introduction of the complex social interactions of social actors within the community structure (internal) and with the mainstream (external). The evolution of definitions also highlights the continuous effort to understand EV from spatiotemporal uncertainties- how each area of change interacts with the other areas through the sustainability framework. The definition integrates whole system design and refers to EV as a system. Theoretically, EV is integrated into

mainstream society by introducing the whole system design approach of four dimensions of sustainability framework to develop a social and natural environment.

In practice, EV has the challenge to hold together the dynamics of relationship among the four dimensions: social, culture, environment, and economy in the whole system design. The recent trend suggests that the EV concept has encouraged community, personal and regional development along with ecological concerns. The EVs participate in the institutional frameworks that govern the conditioning political, social, cultural, environmental and economic factors. The peaceful coexistence (Andreas, 2013), interdependencies and interactions with the surrounding may lead to a transition of EV to a locally based mainstream community.

Table 1. The evolution of EV concept illustrating vision to mainstream development

<b>Definition</b>	<b>Steps</b>	<b>Reflection</b>
<i>‘a human scale, full-featured settlement, in which human activities are harmlessly integrated into the natural world, in a way that is supportive of healthy human development and can be successfully continued into the indefinite future’</i> (Gilman, 1991)	Vision	Visionary; a sustainable community.
<i>‘private citizens’ initiative in which the communitarian impulse is of central importance, that are seeking to win back some measure of control over community resources, that have strong shared values (...) and that act as centres of research, demonstration and (in most cases) training’</i> (Dawson, 2006 cited in Kunze & Avelino, 2015, p. 15)		Homogeneity in thought; communal ownership
<i>‘An intentional or traditional community that is consciously designed through a locally owned participatory process to regenerate social and natural environments. The four dimensions of sustainability (ecology, economy, social and cultural) are all integrated into a holistic approach’</i> (GEN in Kunz & Avelino, 2015).	Mainstream development	Adaptable to context; integrated approach



## 2.4 Historical Development of EV: An implementation perspective

The predecessor of EV goes back to diverse lineages self-reliance and spiritual enquiry in world's religious communities and ashrams or Buddhist monasteries, Gandhian principles of autonomy, decentralisation and spiritual enquiry (Dawson, 2009; Litfin, 2012a, 2012b) and like *Back-to-Land Movement* in the 60s and 70s (Mare, 2000). The Back-to-Land-Movement is a term covering several agrarian movements across different historical periods where people took a smallholding of land and produced food for themselves or others. In the 1960s and 70s, many of the young American left their homes in the suburbs and cities. It moved, often sight unseen, to farmhouses and remote mountaintops to build their shelter, grow their food and living closer to nature (Daloz, 2016). The idea was to go back to nature, away from the globalisation and consumerism and develop intentional communities based on consensus building and collective thinking and vision (Daloz, 2016). However, many of the utopian communities and homesteading were unsuccessful. There were many reasons for their failures: the hard life of agriculture; poor infrastructure; poor healthcare; unanimous consent nature of decisions; exclusion of strong economic base (Mare, 2000). They were far from their contextual realities.

In 1987, Hildur and Ross Jackson funded the Gaia Trust for the development of the Ecovillage concept. Until 1991, the development was on the visions of intentional communities. The topics include environmentalism, ecofeminism, renewable energy resources, the integration of traditional cultures and sustainability (Dawson, 2010; Mare, 2000).

When Robert Gilman first introduced the term EV in 1991, it was a comprehensive term that included all the utopian visions, ideas and concepts (Mare, 2000). The ecovillage philosophy respects equality and diversity within the confines of a finite Earth (Dawson, 2010). The philosophy was an effort to make a combine the North's effort of counter culture to the notion of life equated to material consumption, and the South's quest to reclaim the cultural integrity, community solidarity and control over community resources (Dawson, 2010; R. Jackson, 2004). Both sets of initiatives pointed to the concept of self-reliance by cultural and economic empowerment. Despite the different context, the overlapping themes across both efforts were to develop community solidarity and reclaim the control of the resources. As such, the Gilman's definition has the community impulse at the centre of the Ecovillage philosophy to reclaim the resource ownership for its equitable and efficient use and is only possible through creating the organisations of social actors.

In 1993, the Global Ecovillage Network (GEN) was established with the vision of developing the network based on an approach to sustainable communities and sustainable living (Jackson, 1998). Since 1993 to 1995, the focus was to implement the EV concept by ‘doing it as ecovillagers’ (R. Jackson, 2004). GEN was supporting and promoting various non-government organisations (NGOs) that develop different eco-friendly technologies and solutions to reduce the ecological footprint. The strategies were in areas like green ways of living, knowledge sharing, and utilisation of the human resource. Most of the innovations reflect the EVs intentions to manage the resources efficiently and to connect the environmental consciousness in the way community organises for different goals.

After 1996, the focus shifted to building networks across the globe. Those networks patented the term ‘ecovillage’. They developed a standard parameter for every EV in the network to judge how far it was in comparison to the ‘ideal targets’. The targets were on the ecological footprint and democratic decision-making process. The GEN has aimed to encourage the evolution of sustainable settlements across the world through internal and external communication services. The GEN facilitates the flow and exchange of information, networking and project coordination in sustainable settlements related fields, and global cooperation and partnerships, especially with the United Nations (Dawson, 2010).

Since the 2000s, the network has developed the concept of using EVs as the learning and living centres and demonstration sites of sustainable living. The network crosses border across throughout the world. Many EVs started as the projects funded by Gaia Trust or other organisations or personal initiatives. It was likely that due to lack of financial resources, many EVs could either close or run in debts if the people moving in could not invest enough funds to start.

In 2005, a shared educational network and a curriculum was launched in the hope of sharing knowledge and experience about living in a healthy, democratic, and an ecological community. The EV networks continued to grow and incorporate traditional communities, which had any aspirations to sustainable living and had minimum or negative impacts on the ecosystem. The mutual learning and sharing on alternative ways of life has put EV in various national and international projects in connection to mainstream sustainable development

As Trainer (2002) has pointed out, sustainable society has a new socioeconomic system with a high-level of self-sufficiency, cooperation and participation. The EVs follow Trainer (2002)’s strategic notion of a sustainable society, self-government by conscientious, ecologically aware,

small scale, cooperative, and largely self-sufficient communities in which people are willing to live simply. In practice, EV is characterised by alternative technologies to minimise resource and environmental impacts; participatory and cooperative systems for the decision-making process, and the non-profit driven economy. EVs has an impulse of community solidarity, cooperation and non-authoritarian relations.

According to Trainer (2002), EVs follow the anarchist strategy. It involves a grass-root approach firstly by building EVs here and there as setting examples to the mainstream society. The EVs building process is optimistic about its snowball effects into the surrounding neighbourhood or town until they follow with an alternative lifestyle. As such, EVs strategic vision has a strong underpinning of creating and sharing the knowledge from grassroots solutions for wider societal problems under the community governance structure.

Despite the variations in the theoretical definitions, the EV concept has always envisioned regenerating a social and natural environment. The regeneration is based on minimal impact on resource and environment through consensus-based governance structure and increase the number of EVs through knowledge sharing.

From a whole system perspective, the EV concept indicates the tendency to understand the patterns of interactions for specific changes- on developing community organisations based on inclusions in resource-related activities. Such community organisations facilitate the decision-making process, and ownership, and then share the knowledge across space and time.

The three patterns of interactions-resource management, community organisations and knowledge sharing reflect the practical illustration of the whole system challenge, which EV has been continuously innovating concerning their strategic visions and goals. As a whole system, each theme 'rest' on the other parts. The success in any areas depends upon how the people form a community organisation and how they perform and select different means for efficient resource management. Consequently, the organisations generate and share knowledge as a solution that is transferrable to other areas and future generation. The three patterns of interaction also show the pragmatic illustration of the EVs aspiration to the mainstream society.

## **2.5 Findings and Results**

The historical development of EV from the implementation perspective illustrates that EV is not only insular, exclusive, or sheltered. Instead, ecovillages aspired to influence mainstream society in the future. The evolution of theoretical definitions of EV has highlighted its steady growth to its aspiration. The EVs evolutions highlight its struggle on whole-system challenge,

that is to develop an approach that allows the community to develop sustainability as a part of thinking and the habits of the group from the very beginning, not only as a characteristic of the community (Gilman, 1991)

Based on the whole-system perspective, EVs, visions, practices, and researches focus on three essential areas: resource management, community organisations and knowledge sharing across scales (local and regional) and time.

The following sections present the literature reviews of three categories of EV literature; vision, practice and research to understand three areas of EVs. Table 2 summarises the three thematic areas of the EV concept; resource management, community organisation, and knowledge generation and sharing.

Table 2. Three themes of patterns of social interactions based on the literature review of EV

Themes	Vision	Practice	Research	Inferences
Resource Management (RM)	Self-sustained	Eco-friendly technologies and systems, cooperatives	Reducing consumption, resource harvesting	Resource allocation
Community Organisation (CO)	Consensus and social lifestyle	Activities related to social interaction and commitment	Resolution of conflicts and balance competitions	Societal integration
Knowledge Sharing (KS)	Knowledge generation, iteration, and exchange	Seminar, toolkits, education centres, training manuals	Curriculum on sustainable lifestyle' collaboration and partnership	Knowledge transfer Intra/ intergeneration

### 2.5.1 Resource Management (RM)

At the very heart of the rationale for creating ecovillages is to have control of the resources. As such, EVs tend to be self-sustained in terms of resource harvest and consumption (energy, water, food, and finance). EV aims to develop a local cyclic system of resource utilisation so

that the outside resource demand remains low. EV pursues natural resource-based approach with the use of local materials, low external input and labour intensity, an amalgamation of old and new solutions, and establishment of local environment cycles (Borsos, 2009).

In practice, EVs are developing various eco-friendly technologies and systems that are innovative, indigenous, and uncompromised of the comfort level of the current lifestyle. There are two areas of resource management: infrastructures for basic amenities (water, land, energy, and transportation) and economic entities. In the infrastructures, EV focuses on creating a low impact settlement; the houses are built in clusters so that services (water, communication, energy and sewerage system) are concentrated (Borsos, 2009). The concept of higher density bring residents close to social interactions and surrounding nature, minimise the need of transportation within the community (Walker, 2005), and maximum land for agriculture (Kirby, 2003; Kunze & Avelino, 2015; Loezer, 2011). EV locates settlements according to natural conditions for natural drainage waste recycling, compost toilets and green businesses (organic farming and products) (H. Jackson, 2004; Loezer, 2011). EV also innovates on energy efficiency in building houses and infrastructures, like the passive technology concept (that uses both traditional building materials and new materials) (Loezer, 2011; Pickerill, 2012).

The economy of EVs (especially in developing countries) have a strong link to the development of local economies so that the economy circulates within the community. The practices emphasise on local exchange trading system, fair-trade products, and most importantly breakage of dependency on financial demands for further development (Dawson, 2006). Many EVs have practised community-owned enterprises based on the principles of mutuality. They use their profits to start-up and support other enterprises in the form of co-ops for producer-consumer, credit, marketing, health, insurance, and other necessary goods and services.

The innovation on resource management indicates EV's continuous research on the idea of resource conservation and reduction-an efficient use of resources. Reduction in resource consumption and sharing of resources inspire the sense of community (Chitewere, 2006).

In summary, resource management encompasses vision, solutions and practices, various and researches on innovation technologies, and solutions developed for lowering the ecological footprint. The solutions are eco-friendly technologies and innovations for supporting the natural balance. It also covers all financial resources and activities like financing, donations, and the establishment of social enterprises within the community, which for financial

independence. Everywhere this is evidence of patterns of proper resource allocation across different areas and time for its latent vision of self-reliance and independence.

### **2.5.2 Community Organisation (CO)**

The EV's vision has a communitarian impulse of a consensus-based social lifestyle. Consensus-building is a beautiful process in theory only (Kirby, 2003). Conceptually, EV is based on local participation and considers actors inclusion in various activities and decision-making process as the vital factor to bring community solidarity and identity. There are more significant roles of social bonds and commitments on how community groups can organise and remain together (Wagner, 2012). Community solidarity strongly expresses a democratic decision-making process in various activities of interaction and commitment.

EV involves activities that are related to social interaction and commitment in practice to achieve consensus. Individuals and their social interactions are mediated through various community-based activities like communal meals, casual opportunities for socialising (Kirby, 2003), local gardening and learning centres. EVs have developed the community governance structure that eases the management of various enterprises, like a farm, bakery, and other public amenities through different goal-specific organisations. Such goal-specific organisations allow social interaction, voluntary works, and collective decision-making. EV offers and encourages the interaction space in the form of organisations along with opportunities for social interactions (Chitewere, 2006).

The development of goal-specific community organisations in EV expresses a democratic process (Walker, 2005). However, aspects such as the pressure of time, economy, commitment barrier and cultural difference can abstract consensus process (Kirby, 2003) and thus, sometimes is counterproductive. Consensus-based decision-making process often halts due to people's discontent, different perspectives resulting in disharmony within the community. Continuous efforts have been made to have a structure and functionality in terms of goals, decision making, consensus building and most importantly integration of new members (Wagner, 2012). The organisations with all individuals or groups having the same rights or control are unlikely and thus has de facto variations of control. The power shifts among different stakeholders and depends upon the variations in control on values, feelings and experiences, facts and techniques (Singh & Keitsch, 2014).

There is a continuous effort on learning and adapting different community governance structure for resolving conflicts. It emphasises on minimising the tension between personal growth

versus demand for participation (Kirby, 2003; Walker, 2005). One of the most evident focus is on provisions for outside facilitators to open channels of communication to increase the communication and listen to each other and to respond appropriately in case of conflict (Kirby, 2003; Walker, 2005). The open channels also pool experts and non-professionals contributions, and other stakeholders to monitor undesirable shifts like growing inequality, incongruence, and rising exclusion.

In summary, community organisation covers visions, practices, and researches for developing a societal integration at the community level. The community organisation encompasses the consensus-based lifestyle with practices on equity and interaction based on the democratic decision-making process. The activities include meetings and conferences, developing gestures and activities and their impact on building the relations among the residents, intra-generation as well as inter-generation. As a part of developing the social environment based on just, there have been continuous efforts in EVs to develop the normative orders for conflict resolutions. Some of the researches on conflict resolutions include rediscovering some of the old cultures and the indigenous models and governance structure and corresponding normative orders. At a broader level, it also encompasses the integration of the community organisations in the mainstream institutional framework.

### **2.5.3 Knowledge Sharing (KS)**

Since the Gilman's definitions, one of the key visions of EV is to generate, share and iterate knowledge on a sustainable way of living across the wider societal problems. It introduces and iterates various eco-friendly technologies, systems, and activities. EV envisions the knowledge transfer between EVs and public as well as different parts of regions to strengthen the capacity of local EVs and their visibility in society (Kovasna, 2012). The learning and exchange of knowledge involve intra-generation and intergeneration process to continue values and beliefs of a sustainable lifestyle in the future. The attributes of EVs as research centres has enabled them to move quickly and boldly in the real context in recreating the natural and social environment.

In practice, people use different media to disseminate knowledge of such activities and technologies- such as various media seminars, toolkits, regular conferences, workshops and most importantly, education centres (Kovasna, 2012). The training manuals and toolkits are for replication on two topics- resource utilisation and community living. The manuals preparation expects to be used by residents (Kovasna, 2012) as prescriptions to local communities.

Several EVs research associates the organisations and structure of the community with livelihood strategies, social and environmental meanings on locally anchored cultural practices and expertise in buildings, farming, local governance, and division of works (Arkalo, 2014 cited in Olivier). The local-based knowledge also indicates the EVs aspiration towards mainstream society despite its varied philosophy.

The recent development of the EV concept has emphasised of developing a link between academia and practice. Academic research can help in knowledge generation and dissemination by collecting relevant knowledge from different experimental places and guaranteeing greater internal and external validity (Wagner, 2012). EVs are developing an internship program, a concept like EV Road, interactive database online for tourism, marketing and networking to facilitate EVs visits, outreach centres and knowledge exchange (Kovasna, 2012). Even EVs have conceptualised education curriculum on a sustainable lifestyle by considering the entire community as a grand social and technical laboratory.

On a broader scale, several EVs share their knowledge and experience through networks like GEN. They are active in education, networking, and information dissemination with political organisations like the EU and UNESCO. Through such networks, EVs disseminate hands-on experiences of social, ecological, economic and cultural tools on how to conceptualise self-organised EVs (Kunze & Avelino, 2015).

In summary, at a community level, the knowledge sharing covers all the activities and practices to learn, teach and share solutions for a daily sustainable lifestyle on community building, restoring nature and being eco-friendly through different institutions like older people care and schools. The initiations aim to free the constraints of conventional educational structures and pedagogies. EVs integrate and institutionalise sustainable practices and knowledge through education rather than limiting to some taught lessons or any academic practices. The patterns of interactions in knowledge sharing have created a bridge to mainstream society.

## **2.6 Discussion**

The previous section has summarised the EVs tendency to link to mainstream society. The three key areas: resource management, community organisations and knowledge sharing, also characterise the EVs' visions, practices and researches.

Westskog et al. (2018) have referred to Smith (2007)'s niche-regime translations to understand the translation processes of EV into mainstream society by analysing Hurdal Ecovillage's relationship with the mainstream society. According to Westskog et al. (2018), the transition



process, in general, has two important challenges: EV's tendency to maintain the unique value and insular nature from the mainstream society; and the local context influences on defining the EV.

### 2.6.1 EV and Cultural Value

At the heart of EV lies a strong body of shared values, that some EVs refer to as spirituality. The values are culture standard for discerning good and just in society and are deeply embedded and critical for transmitting a culture's beliefs. Beliefs are the convictions that people hold to be true. Therefore, culture constitutes all the guiding values as ways of life. For EVs, the shared values are the guiding principles for the sustainable way of life that also establish the complex relationship between culture and sustainability. EVs own way of life that is culture has also defined their unique identity and the reason for distancing from the mainstream society that has different cultural values. EVs have a strong sense of shared values generally underpins a shared vision for ecological restoration, global justice, spiritual development, self-empowerment, service and healing (Dawson, 2010). The difference has been one of the issues concerning the transition process, eventuality referring to the sustainability gap.

At the fundamental level, culture is a crucial dimension of sustainability- sustainability recognises the importance of cultural diversity, intercultural dialogue and the connection between culture and human rights. A more rigorous and refined rendering of culture is required to understand the complexity of the cultural values with the sustainability, focussing on EVs.

The following begins with a clarification of how sustainability can be understood in terms of culture. Figure1 below represents Dessein et al. (2015)'s three notions of culture in sustainable development.

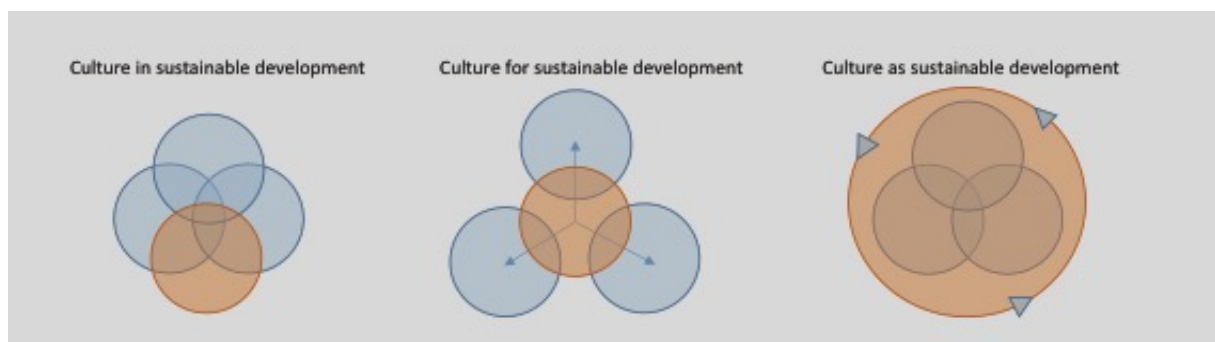


Figure 1. The three roles of culture (represented in orange) in sustainable development (the three circles represent the three pillars). Source:- Dessein et al. (2015)

The first representation to the left assesses culture as an independent pillar as any other dimensions of sustainable development. The representation refers to culture as a process of intellectual, spiritual or aesthetic development, and its results. The second representation in the middle indicates the way of life, in which culture acts as the connecting link among three dimensions of sustainable development. Culture processes and translates into a common language and interpret other dimensions of sustainability. The third representation to the right suggests culture as a semiosis. Here, culture stands as a sign that represents a whole of a sustainable lifestyle- an amalgamation of all three dimensions of sustainable development.

Presumably, EV conceives an appropriate scaled community that brings forth the new or transforming culture of anti-globalisation (R. Jackson, 2004) resembling the third representation of the culture. The notion has new values, knowledge, beliefs, and most importantly, ideologies embedded in the culture that underpin the cultivation of mind and spirit-encompassing environment centred actions and practices. In response to the alienating condition of modernity, EVs seeks to establish a tight-knit sense of community, based on self-governance. EVs advocates the new policies consisting of sustainability principles and asserts that development is a transformation of the mainstream society to a sustainable one and is a cultural process.

Despite the high diversity of EVs particularity in manifestations concerning forms of the organisations, the ways of living, and the priorities they gave to different aspects of the sustainable living, on a deeper level, they are significantly unified, in particular by the holistic worldview perspective (Litfin, 2012a). The worldview dimension refers to what guides people ways of life and awareness of the much-needed transition to sustainable development (Horlings, Battaglini, & Dessen, 2016; Strasser, 2013). The worldview perspective means that EVs go beyond or transcend the world view of modern science and technology to reconnect with and integrate the wisdom of traditional communities and indigenous people (Walker, 2005).

According to Strasser (2013), two characteristics highlight EVs: First, EVs embody diverse, sustainable ways of life as the demonstration. Second, they function as dissemination sites for spreading the worldview underlying these ways of life.

As a demonstration site, the EV concept addresses the intrinsic and instrumental values of a culture. It embodies them into the solutions and practices in three strategic areas. In resource management, EVs pioneer on the reduction of resource consumption through new kinds of

socioeconomic systems based on cooperative organisations and solutions concerning the minimum impact to nature. EVs also shows societal integration and cohesion through communitarian impulse and trust-building. As sustainable models, the EVs have offered tools and pathways for growing elsewhere in different local conditions. No ecovillage can be replicated elsewhere, due to diversity and uniqueness of local conditions (R. Jackson, 2004).

In the dissemination function, EVs involve a subtle process of cultural transformation process by transmitting the holistic worldview and beliefs underpinning different practices and activities of sustainable ways of living. A transformation towards a sustainable way of living requires changes in the worldview and values (Trainer, 2002). EVs are in this regard the repositories of knowledge and values for the rest of the mainstream society.

The two characteristics mentioned above of EVs presents the EV concept's holistic worldview perspective of the way of life. The characteristics present EVs as the transformational actors that integrate sustainable worldviews and the ways of life and make them knowable and liveable for the mainstream society.

Referring to (Soini & Dessein, 2016), the translation of EVs to the mainstream society then reflects the paradigm shift of sustainability from a stable state to a more dynamic state. It means the shift of understanding sustainability from a present societal form of mainstream society to transformative form as a whole. The translation process needs redefining the way of life not only as being guided by the EV values but also as the way of life pertaining the contextual values. The introduction of the mainstream society's influence introduces a pertinent question of how EV principles can be integrated into the mainstream society for the diverse ways of living.

Many societies have intrinsic values, beliefs, and practices that have embodied sustainable living and development (Abbas, Nafisi, & Nafisi, 2016; Bidder, Kibat, & Fatt, 2016; Soini & Birkeland, 2014; Tiwari, 2007). Several community-based organisations base their knowledge and roles for the protection and management of natural resources and heritages (Bandarin, Hosagrahar, & Sailer Albernaz, 2011). Furthermore, mainstream society itself is turning towards values of environmental sustainability. Such circumstances might create a value difference between the EVs and the mainstream society that may skew the translation of the EVs into mainstream society, reflecting the sustainability gap.

It makes the second representation of the culture relevant in the translation process. The values are intrinsic (also called inherent) and are experienced in aesthetics, historical sites, heritage,

scientific knowledge or artistic creation. The intrinsic value is considered as a necessary resource to achieve objectives such as those related to education, human-being wellbeing, economic development or environment, reflecting its instrumental characteristics. For example, the cultural values have influences on economic development not only through employment and source of revenues but also as indirect generators of spin-off income from sales in crafts, music and other cultural products (Bandarin et al., 2011).

The second representation of the culture is relevant for the intermediary projects. On the one hand, keeps the values and belief systems of EVs (subjective). On the other hand, the intrinsic values facilitate the resource for attaining different objectives of the mainstream society policies governed under different institutional frameworks (objective). From the sustainability perspective, the second representation also becomes crucial to understand the mitigation of the sustainability gap.

### **2.6.2 EV and Region**

The translation process of the EVs into the mainstream society not only confronts the challenge of integrating its principles to the mainstream society but also faces the challenge of maintaining its values in the significance of the local context. The success of the translation process is also highly dependent on the local context and the significance of its institutional framework in defining the EVs roles in the translations process.

The definitions of EV highlight isolated characteristics as ‘world within a world’. However, individual EVs are inevitably too small to escape the perverse gravitational pull of the mainstream society. There are several cases of failures where EVs of homesteading have faded out because of financial resources deficiency (Mare, 2000). There is no middle ground between integrating to the mainstream society and cutting all or most of the links with it. In today’s globalised economy, EVs require to identify themselves as belonging and serving something more significant than an isolated group, aiming to create alliances, interact and integrate with the surrounding forming greater bioregions (Andreas, 2013; Dawson, 2006), and be relevant to the people of surrounding regions (Andreas, 2013).

According to Horlings et al. (2016), regions can be either the space as the result of outcomes of social relations or geographically bounded administrative areas. The relational notion emphasises region as the process that is performed, limited, symbolised, and institutionalised through practices, discourses and power relations that are not inevitably bound to a specific scale, but maybe networked in both time (intergenerational transfer) and space (interaction)

(Horlings et al., 2016). The relations are expressed between the land and the economy, nature and the society, rural and urban and at the unique intersection of social, economic, cultural and political relations that are mapped over multiple communities and resulting in the distinctness of places (Woods, 2014).

The region can also be understood from a spatial, bounded approach in a concrete context, such as in political debates where power is exercised, or in discussions on constructing regional identities and boundary-making (Horlings et al., 2016). In either case, the region is characterised by regional identity. The regional identity refers to the distinctiveness of places for which they are known and is the contribution of each participating communities' values.

Presumably, EVs conceive the translation process as the interaction between multiple contexts to form a coalition of the greater region spatially and temporally, based on the social, economic, political and cultural relations or as a concrete context. In a concrete context, EVs become parts of specific boundary conditioned under social, political, and economic contexts within a certain boundary, for example, municipalities. EVs facilitate resource exchange (municipalities utilities like grid electricity and sanitary infrastructures, and supplementing these systems with an on-site solar photovoltaic cell and composting toilets), reflecting the resource management. EVs also participate in the existing institutional framework through different socio organisations formation so that they can voice on their shared values for structural changes in the mainstream institutional framework (Boyer, 2015). EVs, in general, share their knowledge on solutions and practices after adopting in relation to the mainstream society. (Soini & Birkeland, 2014) have identified it as a locality that favours local, place-based development and respects the local values, but at the same time contributes to developing regional identities.

Similarly, in the networks and relational perspective, EVs contributes to the creation of alliances and has made the importance of variance for a related unity; for example, GEN. GEN is conceptually comprised of EVs in networks and mapped across the globe in different localities with the distinctness of them. Each EVs act as centres of research in their specific field of exploration and expertise. The region connects diverse people with different values by finding the means to involve them in regional development with common aims. In the planning, the means refer to the intermediary projects, that on the one hand addresses the local values, and on the other hand addresses the relations with others in the region bounded by different relations.

The two characteristics mentioned above of EVs reflects their means and aims of interaction with the mainstream society either linked to the geographical boundaries, for example, municipalities, or related to specific aims and objectives, for example, GEN. In either case, EVs are the contributors to the regional identities.

Trainer (2002) has favoured the idea of setting examples and education of the sustainable lifestyle through EVs building so that the surrounding in a future can follow. Dawson (2010, p. 66) describes the dissemination of EVs values using the analogy of ‘yoghurt culture: small, dense and rich concentrations of activity whose aims is to transforms the nature of that which is around them.’ The approach mentioned above only refers to the growth with or of EVs through replication and scaling up activities. In Fotopoulos (2000)'s language, EVs are simply trying to build better circumstances for themselves.

The actual translation of practices includes the adoption of EV practices at higher institutional levels and complementary changes in the adapting institutions (Boyer, 2015). Fotopoulos (2000) further emphasises on the institutional changes through the participation of EVs in the mainstream institutional frameworks.

Paradoxically, the EV translation may require EVs to compromise some of the elements of their ideological values to engage in mainstream society successfully (Boyer, 2015). Referring to Smith (2007), this also means reinterpreting elements of socio-technical practices in the EVs and inserting them into the mainstream or modifying the EVs in the light of lessons learned about the mainstream society. Smith (2007) has pointed out that the translation process requires intermediary projects, where the socio-technical contexts between the EVs and the mainstream society might bridge. Boyer (2015) also shows the intermediary of different practices that may enhance the interaction between EVs and its region, either connected in a concrete context or related because of the aims.

In the planning, there is a case for the policy in the translation process to nurture EVs values as well. The policy requires identification of the ways to confront, move and adopt ideas and practices between diverse EVs and mainstream under sustainability tensions. In practice, there is a blurry distinction between EVs and mainstream once the completion of the translation process. The mainstream interest, through its institutional frameworks, provokes EVs reconfiguration closer to the mainstream. This brings the pertinent question of EVs value maintenance once the boundaries between EVS and the mainstream society blur. The translation process views the region as a whole system with EVs as its parts. EVs as parts have

discrete characteristics, but when interacting with other discrete parts result into concrete ends in the region.

## **2.7 Inferences**

The previous section asserts that sustainability of EV is contextual because of the regional influences. The contextual notion of the EVs- region interaction argues for intrinsic and instrumental value for defining the ways of life (Nurse, 2006). However, the semiotic role of embeddings of the shared values argues for sustainable culture as a whole (Strasser, 2013) (see section 2.3). Translating EV's into mainstream society means to find it among ordinary people in their landscape that nurtures the human-nature-human relationships (Soini & Birkeland, 2014). It is challenging for the whole system concept like EV: On the one hand, it has to maintain its values and identity. On the other hand, it has to find ways into the integration of their practices and values considering the regional cooperation in mainstream society. The EV's dilemmatic scenario also highlights the existing knowledge differences between EVs as individual communities and discrete parts of mainstream society.

From the policy perspective, the translation of EVs primarily concerns territorial or regional questions. The regional aspects call for an integration of spatially different knowledge for place-based development or communities based management, including individual perspective (Soini & Birkeland, 2014), either in relational space or concrete political boundaries.

The argument here is that the translation process has the following dynamic characteristics. First, the translation process creates differentiated interactions as a result of the intertwinement of EVs tendency to retain its values and regional influences. Second, the translation process is the result of balancing the internal and external factors, and the consequent interpretations of sustainability. Both characteristics provide an introductory glimpse into the mitigation of the sustainability gap, mainly referring to bridge the knowledge claims between EVs and the mainstream society. In this context, the most helpful way forward may be to describe different interactions of EVs with mainstream society as a result of balancing the internal tendency to retain its cultural values and external intertwinement of regional influences.

## **CHAPTER 3. RESEARCH METHODOLOGY**

This chapter presents the study's research strategy. It discusses the setting for making methodological decisions, which are research-based issues. The current chapter gives an overview of the research and outlines various stages of the research process. The chapter presents the orientation of the researcher and methodological choices made at different stages of the process. The application of methods at different stages is described in chronological order, followed by subsequent analysis and reflections.

The study started with understanding the research context. Content-wise, understanding the context relates to the theoretical background of sustainability and local vs global gap. Methodologically, understanding the context means to unveil the nexus of relationships of information rather than to make their categories. Categories refer to groups of actions that have common goals; for example, forest management (see also Chapter 5).

The differences in the understanding of EV's sustainability between the local level (in terms of action), and national/global level (in terms of policy) is partly due to the differences in the interpretation of the concept at different levels and interconnected to the social context (see Chapter 1; section 1.1). The collected data have the social conundrum and present themselves within a bigger network of relations of social context at action and policy levels. The social context also brings the necessity to inquire and present the subjective nature of the data and analyse them accordingly.

As a result, the study emphasised the development of analytic themes, based on the patterns of interactions in any actions at the local level. Themes here referred to the overview for reviewing interrelated actions based on their pattern of interactions rather than goals, such as resource management. The themes are applicable in both academia and practice to develop policies and actions. The research perceived the discussion of ecovillage (EV) as an example of a theoretical concept for a local level. The concept was the starting point to develop the themes of analysis: resource management (RM), community organisation (CO), and knowledge sharing (KS) (see Chapter 2).

### **3.1 Research Approach**

An initial study on sustainability and sustainable development led to various local-level initiatives. On the one hand, EVs are established and holistic communities that have practical applications. They do not focus on specific working areas, for example, sanitation, water,



energy. EVs, on the other hand, are collaborating with the mainstream institutional framework. The EVs collaboration with the regional actors also reveals the ongoing sustainability gap-action vs policy.

The preliminary observation and interviews with the local people in Jhong and the surroundings revealed that there were no fixed interpretations of sustainability. As such, the initial approach pointed towards unveiling the interpretations of the sustainability concept in the local context through concrete objects. There was a problem in the conceptual development and methodological framework for understanding EV's sustainability at the local context, rather than across the plane of data for validation and verification of sustainability across local and mainstream institutions. It referred to an integrative framework considering, for example, culture and region- how an actor relates sustainability to their lifestyle and with the mainstream institutions.

The research started with the socio-physiological study on how people in EVs perceive sustainability. Recent EV practices indicate that many EVs attempt to integrate into the mainstream (See Chapter 5). The study attempted to find intermediary projects in cases, that were scaled up to the mainstream policy on the one hand and had maintained its values of sustainable lifestyle on the other hand. The aim was also to analyse how such interpretations and relations convey sustainability as a part of their social contexts. On the one hand, the aim was to comprehend the local actors' narratives and interpretations, and on the other hand, to co-create the knowledge on EV's sustainability for the research's context. Integration of EV in a mainstream development is a conceptual challenge that needs further exploration rather than verification through empirical facts.

### **3.2 Qualitative Research as a Process**

The research approaches qualitative research as the field of inquiry. Application of qualitative research as the inquiry process was one of the essences of the research. Within the complex and introspective nature of the research, the field of inquiry cross-cut various disciplines, fields, and subject matters, that is looking to the inside details instead of overarching 'bird's perspective'. According to Denzin and Lincoln (1994, p. 4), 'qualitative research emphasises on processes and meanings that are not rigorously examined (or measured) in terms of quantity, amount, intensity, or frequency'. Qualitative research stresses a socially constructed nature of reality (Denzin & Lincoln, 1994). As a result, in qualitative research, it is important to focus

on the relationship between researchers, what is studied, and situational constraints that shaped the inquiry.

The above discourse identifies qualitative researches as context-based research processes. The data collected, analysed, and the knowledge created were based on the social experience and interpretation process that engaged descriptions of other researchers, respondents and their respective values. The approach explained EV's sustainability from the social context and getting closer to the respondents' perspectives. Furthermore, the qualitative approach confronted the constraints of everyday social life and incorporated them as an important aspect in the EV's sustainability augmentation.

There were five different phases in chronological order as far as possible, and involvement and relationship of the researcher and the researched.

### **3.2.1 Phase One- The researcher's position regarding context- politics and ethics of research**

The first phase locates the researcher to determine the relationship between researchers and real subjects, or real individuals, who are present in the world and able, in some form to report on one's experience (Denzin & Lincoln, 1994).

The study involved different knowledge claims of actions and mainstream policies within the EV concept. On the one hand, the researcher held a belief that the real actors with their own beliefs, could explain their own experiences connecting to EV's sustainability. In this position, the researcher relied upon the subjective verbal or written expressions of life experiences of different actors on interpreting policies and actions. The knowledge co-created then was the result of the integration of experiences and observations of the researcher and the actors.

On the other hand, the researcher apprehended his worldview, or values to present his value-based observations on the other actors' interpretations that might not include the actors' interpretations. The process challenged a notion of the study as a neutral activity.

As such, the actors did not have the same objectives and were not necessarily empowered equally for the outcome of the research. In different contexts, the researcher had a higher authority in knowledge co-creation because the researcher needed to present the results following the research's objectives of mitigating the sustainability gap in EV. Under a complex relationship, the researcher confronted various ethical constraints, especially when linking the actors' interpretations with EV's sustainability. However, Denzin and Lincoln (1994) point out

that a value-free inquiry for the socially related topic is not possible. As such, the researcher developed situational ethics to adapt in a knowledge co-creation process with different stakeholders and their contextual stakes within EV's sustainability.

Punch (1994) indicates that the contexts and constraints of the field and researchers' worldviews influence the design, implementation, and outcome of the research. In the study, the contexts and constraints included the personal relations of the researcher to the subjects of the research and respondents, surrounding culture, resources of the research units (EnPe), universities (IOE and NTNU), and government actors. The nexus of various methods contrasted with the neat and unilinear view of a research process. The scenario also hinted on using action research in the field. Action research is a fieldwork-based method by doing actions at the local level to solve problems (Avison, Baskerville, & Myers, 2001). The action research might end up in developing solutions with the active participation of the researcher. For example, the researcher participated in designing some buildings in Jhong.

The study adapted Punch (1994)'s factors of the politics of research:

*Researcher's personality*- This aspect relates to researchers' intellectual approach, selection of the research topic, and ability in the field (Punch, 1994). The researcher has the professional background of architecture and planning experiences on working in a community and comprehending through discourse and dialogues with the local respondents. The researcher reflected upon his experiences, and accounts of self-observation and respondents' observation on sustainability in verbal terms through illustration mostly from the built environment.

*Geographic proximity*- The cases identified were of four different field settings: Schloss Tempelhof in Germany, Hurdal EV in Norway, Bandipur in Nepal, and Jhong in Nepal. The idea to select different geographical locations referred to the need to compare the understanding and exploration of EV's sustainability with different socio-cultural settings.

*Nature of the research object* Punch (1994), locates the research into a specific space, like community, business organisation, or an informal group for the access, research negotiations, funding, and likelihood of polarity and conflicts. The study was also located at the community level as an onset to investigate the local-national nexus of sustainability. From the practical aspect, implication and exploration of EV's sustainability at the community level have always been challenging, but yet could only be achieved at a local level (See Davidson & Venning, 2011; Gibson, 2005; Karner, 2011; Pathiraja, 2007; Waerther, 2014; Walker, 2005; Wang, 1998; Zamchevska, 2013).

*Researcher's institutional background-* The designation of the researcher's institutional background at the respective countries played a key role in the development of the research. In the case of Hurdal EV, the involvement in NTNU played a crucial role in getting access to key informants. In the case of Schloss Tempelhof, a researcher from a non-European country studying European lifestyle was instead a curiosity to the residents.

In the case of Nepal, it was easy to get access to the communities because there is a general understanding that academic research does not interfere with their lifestyle. However, in some cases, especially the government actors were optimistic in getting some tangible outcomes in the form of technical drawings, for example, the District Development Committee, the Energy advisor, and the mayor of Barhagaun rural municipality.

*Gatekeepers-* In the case of Bandipur Bazar, during discussions, the respondents diverted the discussion to particular people of the community, who have participated in the Bandipur Ecocultural Tourism Project (BECTP) (see section 5.2). In the case of Jhong, the researcher was in continuous touch with a key informant to know about the community. The person in the process helped to identify the right people, to talk to or to facilitate the data collection, as an interpreter in the interviews (see section 5.4).

Punch (1994) calls key informants gatekeepers.. These are individuals, who are determined to protect their institutions and may have insignificant impact on the information that can be gathered for a research project, which might be the case in this investigation.

*Status of field-workers-* In Schloss Tempelhof, a German native accompanied the researcher as a language translator. In Hurdal EV and Bandipur, the researcher conducted data collection alone. In Jhong, the researcher accompanied two student groups from the Master of Sciences in Energy for Social Sustainable Development (MSESSD) programme, at IOE, and verified his data with their data. Furthermore, in Jhong, conversations with two foreign scholars, who had visited Jhong regularly, contributed to understanding the socio-physical and economic context of Jhong.

*Other factors affecting research in the field-* The actual conduct of research and success in the field was affected by the myriad of factors; for example, age, gender, social status quo, ethnic background, bureaucratic obstacles, and sometimes- good fortune. During the field visit to Schloss Tempelhof, the researcher went to the field and got appointments even though they had not committed in prior. In Jhong's case, it was difficult to get access to women and marginalised people. Except for Bandipur Bazar, all three cases contrast with the researcher's

cultural background. The EVs in Europe's cultural settings were unknown to the researcher. The researcher had some knowledge of Jhong's cultural settings because of his prior visits as a research assistant.

*Social and moral obligations-* The researcher faced social and moral obligations during significant parts of the research process. Especially in the case of Jhong, the fieldwork generated a social and moral obligation. The researcher developed a personal relationship with local people, especially with the key informant. The situation compelled him to contribute tangibly. As a result, the researcher is still in contact with some of the respondents and provides his assistance, especially in building designs and constructions.

According to Schlegel (2015), there are two premises of ethical concerns:

- 1) To gather as much complete and rich data as possible;
- 2) to alter the data as little as possible through its collection.

Schlegel (2015) explains that researchers are obliged to the validity and reliability of research projects and, at the same time, minimise bias through rigour in collection, analysis, and interpretation of it. Further, in researches that collect data in situations of social interaction, researchers are obliged to respect the subject and protect it against any harm through and because of researches.

Punch (1994) reflects on some of the important ethical considerations that helped the PhD research to fulfil its obligations towards the PhD research and its subject.

*Consent-* Informed consent is one of the significant elements of ethical consideration: The subjects have the right to be informed about being researched and the nature of researches (Punch, 1994). However, in Jhong's case, the respondents were unwilling to participate in interviews if recorded or noted down. The participants gave the consent only after convincing them that their accounts would be anonymous. The researcher did not inform the subjects in the case of simple observations and noting down activities. It would be untenable if every self-observation were detailed out or waited for consent.

*Deception-* Punch (1994) accepts some sorts of deception in some areas, where the benefits of knowledge outweigh the harms that have been minimised by following the convention of confidentiality and identity, especially in cases, when the terminologies are new and seek varied interpretations, for example, EV and sustainability. In Jhong, the researcher accepted local interpretations of sustainability because of their unfamiliarity to the term. The researcher

hid his professional background as an architect while presenting the topic for two reasons. First, local actors might not be able to explain their experience of built forms and structures as in the case of Schloss Tempelhof, Hurdal EV, and Bandipur Bazar. Second, the respondents might seek to get advice on their problems associated with constructions, as in the case of Jhong, instead of focussing on sustainability

Furthermore, the local people in Jhong might be upset that their participation in the research did not provide any tangible outputs related to the research topic. In Jhong, the researcher talked about the equity in the participation of marginalised groups in the decision-making process related to resource use. The topic was contested and developed different remarks (See section 5.4).

*Privacy, Harm, Identification, Confidentiality-* Schlegel (2015), in her thesis, points out that anonymity can sometimes bring out controversial viewpoints of individual participants. The anonymity was protected since such viewpoints can bring respondents an unpleasant stance in the future. Similarly, the sense of privacy is different between the Nepalese and European settings. In Jhong, the anonymity of respondents was not possible for any insiders. They could locate or identify the concerned person looking at the researcher's accounts. For example, in Jhong, the key informant was accused of getting financial benefits for participating in the fieldwork. As a result, he discontinued as an interpreter during the interview sessions.

*Trust and Betrayal-* Punch (1994) states that one of the important aspects of the ethical debate is that the researcher should not spoil the field for others. Researchers usually also do not feel obliged to inform as well as provide any outputs to respondents, especially about EV's sustainability. However, for future researchers who seek access, it may be problematic. The issue was prevalent to some extent in Jhong. During the field works, the researcher stayed away from the controversies. According to one of the interviewees, people were fed-up with researchers coming to the village. They were not informed about the outcomes of researches and did not get any concrete outputs. As such, the researcher had to visit the field several times to build a trusty relationship.

Considering the politics and ethics, that define the study's context, the following section puts the researcher's position and orientation in procuring the research in the myriad of complexities of the research context. The following section provides a basic set of beliefs, or worldviews, which guided the design of overall research strategies in collecting, analysing, and presenting the data.

### 3.2.2 Phase Two- Theoretical framework

The study puts interpretation at the core of the analysis, following Hay (2011) 's approach in developing an analytic framework for public administration. The following section presents the philosophical assumptions from a set of fundamental ontological commitments that, in turn, provide a basis for epistemological possibilities and eventually a set of methodological choices.

#### *a) The ontological question*

The ontological question enquires about the nature and form of the reality that can be known. The question unveils forms and content of EV's sustainability in actions and interpreting the meanings and beliefs that guide those actions.

Ontologically, the study trans-positioned and broadened its worldview drawn from hermeneutics in interpreting EV's sustainability. The study augmented the hermeneutics from the narrow textual realm to social actions following Hay (2011). According to Hay (2011), actions and practices have a meaningful character as the result of the actors' orientation to the socio-economic environment in which they find themselves through the ideas (beliefs and values) about the environment.

Actions and practices were recast and reread as texts with understanding that actions and their underlying beliefs were co-constitutive. The researcher encountered local actors' belief them through his interpretations, the meanings that they might hold for the research, and the meanings the research might make out of them.

The study positioned the researcher in the ontological stance, which allowed interpretations and knowledge generation as an open-ended, dynamic, and evolving process. Such ontological assumptions had significant epistemological possibilities, as discussed in the following section.

#### *b) The epistemological question*

The epistemological question enquires about the nature of knowledge, its justification, and the rationality of the belief system (Guba & Lincoln, 1994). What matters is how the knowledge is generated based on the respondents' and researchers' beliefs, and the rationality behind believing. *Believe* indicates accepting something as real based on the discourse and context from an observant's perspective. Similarly, *know* indicates something as true or accurate. Knowing something means that a contextual discourse does not affect an observant acceptance of the truth. As such, the EV's sustainability had two connotations: what local actors perceive

as sustainable, and what was sustainable based on theory, regardless of actors' varied perceptions.

Furthermore, the cause of incoherency was mainly blamed to the creation and integration of non-perspectival and non-provisional nature of EV's sustainability in actions and policies. By non-perspectival, it refers to knowledge that does not integrate local people's worldviews. By non-provisional, it refers to knowledge that does not allow improvisation of knowledge across space and time. EV's unmediated knowledge and a single world view on sustainability were not possible, especially in dynamic social realities. Presumably, it was obliged to interpret and integrate the mental constructions of different social actors in sustainability knowledge.

Epistemologically, the dilemma of conceptualising and perceiving EV's sustainability in policies and actions associates with believing and knowing. Policymakers generally tend to conceptualise policies based on the mainstream institutional framework, and underlying axiom which they consider as true without critical reflection. This is left to intelligentsia, As such, EVs appeared as an alternative lifestyle. Eco-sensitive practice, for example, organic farming, eco-sensitive building technologies, and recycling were scaled up or repeated in mainstream policies rather than the EV values, However, local actors, especially from EVs, link sustainability to their lifestyles. As such, the knowledge on sustainability (policies) of policymakers detached from the EV's local knowledge and their ways of knowing things. In other words, local actors cannot link actions that are guided by non-provisional and non-perspectival policies. Consequently, the resulting actions do not inherit the EV's values and comprehensibility and do not mediate local realities.

Because of such epistemological commitments, the study incorporated the local perspectives in co-creating the knowledge on EV's sustainability. The study interpreted local actors' beliefs and perceptions on what they referred to be part of their lifestyles in addition to the empirical facts on sustainability. The conditional nature iterated the knowledge on EV's sustainability, according to local actors' understanding of sustainability in their context (space and time).

Despite the study' stance on integrating subjects' position as vantage points, the researcher was in a continuous dilemma on interpreting and integrating knowledge on EV's sustainability that had diverse perspectives. There were chances of both differences and commonality. As an interpretivist, the researcher continuously investigated conserved sets of common inter-subjective resources for making sense of events and experiences through diverse perspectives. Such epistemological commitments had significant methodological implications.



### *c) Methodological question*

Methodological question enquires about the process of accumulating knowledge. According to Guba and Lincoln (1994), methodology enquires how an inquirer can go about finding out whatever one believes can be known.

In general, the sustainability planning process with EV concept follows a deductive approach in knowledge co-creation by explaining it in the form of abstracted re-description of a general phenomenon. Consequently, the resulting policies present solutions through functional and technical directives to achieve concrete output. This approach reflects an objective way of understanding reality. Nevertheless, local actors do not perceive the actions developed as a result of robust policies. The local perceptions may not consider the objective facts and justification.

Under such circumstances, the methodological implication was to accumulate local people's relative experience-based- actions and practices that could refer to the sustainability discourse, an inductive research approach. The researcher faced the methodological challenge in developing epistemological conviction through subjective justification. Accordingly, the researcher as an interpretivist set not only an exacting explanatory standard but invariably committed arduous, difficult and extensive primary research to operationalise the explanatory standard of EV's sustainability, for example, EV's overlapping themes.

The researcher's methodological choice reflected an inductive approach in knowledge co-creation for EV's sustainability. Such co-creation disavowed a covering law of policies to derive the preferences, interest, motives or the beliefs of actors and meanings of actions to them they were engaged. For example, nationalisation of natural resources in Jhong's case had the purpose of conserving the forest; however, the local communities perceived it as demeaning their roles in conserving the forest.

### *Reflection on the philosophical assumptions of the research*

The philosophical assumption highlighted two distinct and interrelated ways of interpretations. First, local actors' interpretations of EV's sustainability were social constructions in various forms or contents in social actions and practices. The study mapped and interpreted the local actors' beliefs empirically, analysed them, and then reconstructed meaning to the beliefs as per EV's themes- how they appeared, framed and explained actions, practices, and institutions. Second, local actors encountered a context of a veil of ideas (beliefs, understandings, and meanings) that were based on the traditions (a web of meanings) and were relevant as per their

lifestyles. For example, the values of all cases were different. Their interpretations might not point towards sustainability.

In such circumstances, there were higher chances that the interpretations were devoid of the local beliefs. In planning, such knowledge generates lacunae between policies (conceptualised by policymakers) and actions (perceived by local actors), despite appearing as sustainable. As such, all the analyses of social actions and practices offered two sets of interpretations- the local actors' interpretations in practice and the researcher's interpretation of their interpretations. The study comprehended the interpretations twice—what the local stakeholders interpreted and how the researcher synthesised them to re-establish certain beliefs; what the researcher analysed from them and manifest the beliefs, like already established norms.

#### *Reflection on the researcher's role as a practitioner*

Under the circumstance of local actors' interpretations of social actions and the researcher's interpretations based on sustainability, the researcher faced a relevance (interpretation of believe-practice) versus dilemma of rigour (interpretation of know-science) in understanding EV's sustainability. The study began with the analysis of any phenomena with the researcher's theoretical knowledge based on established propositions of EV's sustainability, for example, alternative lifestyle and use of eco-sensitive technologies. However, scientific knowledge was proposed into certain propositions of EV's sustainability. For example, eco-sensitive technologies were related to the effective use of natural resources and the environment. It was difficult to corroborate into diverse situations, space-wise and time-wise. For example, organic farming used the same technologies but had different purposes and based on different values in different cases.

The researcher, as a practitioner, at first recognised a phenomenon based on his tacit knowledge, for example, farming, forest management, composting and waste disposal. A reasonably accurate or complete description of the actions and practice was not possible, due to lack of adequate criteria that could cover the diversity of bases of interpretation. For example, in Jhong, the researcher allowed the local actors to interpret their practices in their ways, which was not in line with the theoretical sustainability. For example, in the case of Bandipur Bazar, the activities and practices on heritage conservation were purposed to tourism. The researcher, even when was using research-based/theories, for example, three themes of EV, were highly dependent on tacit recognitions, judgements, and skills.

Furthermore, the researcher and the local actors attempted to make sense of actions and the interpretations concerning EV's sustainability and the belief system behind that. He was reflecting on theoretical understandings, which were implicit in those actions and practices- an iterative process. The entire process refers to the reflection-in-action, by which the practitioner sometimes deals with the diverse situations of uncertainty, instability, uniqueness, and value conflict (Schön, 1983).

### **3.2.3 Phase three- Research Design- Case Study**

A proper research design describes a flexible set of guidelines that connects theoretical paradigms to the strategies of enquiry and collecting empirical material (Guba & Lincoln, 1994). A research design positions researchers into the empirical world and connects to the specific sites, persons, groups, institutions and other various interpretive materials like written documents, archives, and other researches.

According to Yin (2014b), the research design directed two important aspects: representation and legitimation of the interpretations of EV's sustainability. Representation reveals ontological and epistemological positions of researchers that orient the study to research questions. It also analyses the phenomena of local levels collaboration with the mainstream policies through different practices that help to analyse and mitigate the sustainability gap. Legitimation reveals processes whereby acts, processes or ideologies become valid and acceptable to participants, researchers, and empirical contexts- both to the local values and mainstream institutional frameworks.

The starting point to formulate the research strategies is three research conditions (Yin, 2014b). They are the type of research questions posed, the extent of control researchers have over actual behavioural events and the degree of focus on contemporary as opposed to entirely historical events.

a) *Types of research questions*- A basic categorisation schemes for the types of research questions is: who, what, where, how and why questions (Yin, 2014b).

The study seek explanatory questions. By explanatory, it means to connect various ideas of causality (cause and effect) pf any social actions concerning sustainability. The researcher explained the rigour of a phenomenon based on their relevance in a given context. The literature review described and explained the sustainability of various actions and practices in EV and develop themes of interactions (that is resource management, community organisation and knowledge generation and sharing). The themes also described and synthesised different

mental constructions of social actions and practices relating to EV's sustainability. Based on the hermeneutics' perspective, the process is the iteration of pre-understanding the concept of EV's sustainability in the bigger context of theory and mainstream policies.

b) *Extent of control over behavioural events*- The explanatory understanding of the social actions were based on the causality of the events, which were rooted in the past events- how certain actions were activated. Similarly, exploration was based on participants' (the local actors and the researcher) experience of past events- how certain actions were interpreted in terms of their relevance for a given context.

c) *Degree of focus on contemporary as opposed to entirely historical events*- Both explanatory and exploratory natures shared many of the techniques, especially with limited control over behavioural events. The explanation relied on different evidence and field data from the past events and interpretations made then after, as causal events. Synthesis and analysis were based on documents (primary and secondary), and their interpretations were made based on tacit learning and sustainability's theory. In comparison, the exploratory nature helped to understand the issues based on their significance and belief system in contemporary events.

The study presented sustainability as the content of a contemporary event. It identified and interpreted actions based on the local actors' perception of social actions as causality. EV's sustainability has different forms in the contents of social actions, for example, means, values, conditions, and purposes as a part of causality.

#### *Defining Case Study Research for the PhD*

The study's complexity and dynamics resulted in a tailored case study research strategy that could transcend across the explanatory and exploratory analysis. The explanatory character of the case study reflected Yin (2014c) 's two-part definition that focuses on how the inquiry was carried out and how the context analyses social actions concerning EV's sustainability. The explanatory study puts empirical facts of actions and practices at the centre.

However, the exploratory character reflected Stake's more flexible stance of the case study- what the research understood or studied (case) (Mills, Harrison, Franklin, & Birks, 2017). The exploratory character puts the interpretations at the centre.

As noted by Crowe et al. (2011), the case study may be approached in different ways. The case study may take a critical (questioning one's own and others' assumptions), interpretivist (trying to understand individual and shared social meanings) or positivist approach (orienting towards the criteria of natural sciences, such as generalisability considerations) (Crowe et al., 2011).

As such, the study drew on critical, and reflective perspectives on thematic explanations of actions through EV's themes on sustainability and then considering the wider political and social environment as well as participants' perceptions on those actions.

### *Defining the case*

Based on explanatory characteristics, a case refers to a contemporary phenomenon within a real-life context, especially when boundaries between a phenomenon and context are not clear. Researchers have little control over the phenomenon in the context (Yin, 2014b). Here, a phenomenon refers to an existing fact or event, whose cause or explanation is in question, and a context refers to the settings that cause a phenomenon (Ragin, 1999).

Then, 'EV was a case of local-level sustainability' and is instrumental for evaluations, for example, sustainability within EVs. Based on Yin (2014b)'s interpretation of the case based on theoretical understandings, the study explained EV's sustainability. The explanations included what actions were sustainable, why certain actions were sustainable, and how actions were implemented so that they were sustainable- a theory-driven approach. It was the starting point to generate theoretical propositions that were potentially transferrable to a range of EV examples from different geographical locations. The process supported the study in identifying categories of interest and relevance in investigating causal relationships, for example, EV themes based on researchers' theoretical propositions on the sustainability of EV (See chapter 2).

Alternatively, based on exploratory nature, a case is understood as a bounded and integrated system and inquires into it as 'an object rather than a process' (Stake, 2008). According to Stake (2008), a case is a specific, complex and functioning entity, or a system which has a boundary, working parts and purposes. This notion supports the knowledge iteration of the EV's sustainability by integrating various interpretations of the case in its pre-understanding as the research progresses. Then, 'EV is a unique case'. Accordingly, the study iterated EV's sustainability based on local perceptions as the study progressed across different cases. The study explored variations in interpretations of EV's sustainability forms and contents in cases rather than generalising whether the actions and practices were sustainable or not based on EV's theoretical benchmarks. The process was the inductive approach in exploring EV's sustainability and then integrating into EV's theory.

### *Selecting the case (s)*

Researches can stipulate generalisation of a case or generalisation for a similar case (exploratory), and generalisation to a population of cases (explanatory) (Stake, 1978). Concerning EV's sustainability, the study generalised EV as a case or for similar sustainable communities and could also generalise to a population of different types of communities. The representativeness yielded EV's sustainability as a case of local-level sustainability. The concept was comprehensible within mainstream institutional frameworks, even if the cases represented unique cases.

Stake (2008) categorises cases as intrinsic, instrumental, and multiple based on the intrinsic and instrumental interests of cases. Selecting cases with intrinsic interests aims the inquiry towards understanding what is important about those cases within their worlds, which is seldom same as researchers' worlds and theorists (Stake, 2008, p. 140). However, this does not necessarily mean that cases of intrinsic interests avoid generalisation. The intrinsic cases expect other readers to comprehend interpretations and modify their interpretations about the cases.

Instrumental cases provide insight into an issue or to redraw generalisation of the issue (Stake, 2008). Cases are of secondary interest or play the supportive role that facilitates researcher's understanding of something else. According to Stake (2008), there is no demarcation line between intrinsic and instrumental cases. However, purposes of studies separate whether cases are intrinsic or instrumental. Instrumental cases are selected to draw researchers toward illustrating manifestations of concepts and ideas of the researchers and theorists. Critical issues are more likely to be known in advance, for example, EV's sustainability, based on literature review, and then redraw the generalisation or insight of issues through logical reasoning based on the already existing knowledge, for example, EV themes.

According to Stake (2008), a collective case study comprises the selection of multiple instrumental cases. Multiple cases may or may not be known in advance. Multiple cases may or may not be similar. Nevertheless, the important aspect is that the understanding of the cases leads to a better understanding or better knowledge generation.

The study followed a collective case study in design with two characteristics. The first group of collective case designs included two intentional, sustainable communities, EVs at Schloss Tempelhof and Hurdal EV. Even though both communities are EVs, the cases have had contrasting characteristics. Schloss Tempelhof never intended to be an EV, or 'a sustainable community' when established. Hurdal EV intended to become 'a sustainable community'. This collective case study focussed on the study of the development of various sustainable practices

according to the communal demands and values. The cases were of instrumental interests for knowing EV's sustainability through actions and practices at EVs. Both EVs illustrated that some of the core values and ideals of a sustainable community differed even in similar actions and practices.

The second group of collective case designs included two already established communities in Nepal as cases, Bandipur Bazar and Jhong. Bandipur Bazar represented the community that has used sustainability as the foundation of survival (in the form of sustainable tourism) but was not a sustainable community. Similarly, Jhong represented an old settlement that has survived more than a thousand years and embedded sustainability in their cultural values. The collective study of existing communities explored how a community had sustained for a long time even though local actors did not have a clear idea of the term sustainability.

The collective study presented the pattern of interactions in social actions based on EV's themes across different cases. Local actors expressed varied reflections on different actions and practices for different purposes. There was no clarity in each case whether the local actors deemed specific actions 'sustainable' or whether it was about the practicality of any actions that became sustainable. However, the reflections evolved across time, even for the same participant. The EV themes aided to thematise the actions and practices as per their purposes- how different actors interacted for different purposes. For example, the EV themes thematise the social actions- what different means were executed for efficient use of resources; how people organised to carry out different activities; how the knowledge was shared and transferred across participating actors and future generations.

As such, the study encapsulated complex meaning into finite narratives through their historical significances in terms of the participants' (the researcher and the local actors) experience and reflections. The narratives drew different conclusions and added to complex interests. The study presented the exploratory understanding of each EV case in descriptive narratives of what was important about the case, issues, contexts, and interpretations concerning collaboration with the mainstream institutional framework. The research scenario allowed the study to experience those happenings and then reinterpret them by ordering in terms of EV themes, cultural values and regional cooperation. In other words, the study translated the local actors' random experiences, narratives and reflections into comprehensible research materials based on the EV's themes. The cases' selection based on two different interests was more of the heuristic than determinative, in which the research contexts and situations determined the intrinsic or instrumental characteristics of selected cases.

### *Contexts and Situations*

A context for a given phenomenon can be a complex entity of physical, economic, ethical, and aesthetic, and influences a phenomenon holistically (Stake, 2008; Yin, 2014b). In a holistic perspective, social phenomena are often influenced by the situation of occurrences of happenings, like, economic and social changes in the mainstream institutional frameworks. For example, the mainstream policies in all four cases have influences on the implementations of actions at the local level.

Contexts and situations can have different interpretations based on exploratory or explanatory research strategies. Especially in Yin (2014b) 's perspective, contexts bring causalities in which the contexts become determinants of the events afterwards. For example, the mainstream policies in cases had determined activities in all four cases, like solar voltaic cells for generating electricity in Schloss Tempelhof, eco-sensitive building technologies in Hurdal EV. It demonstrated a linear nature of the context-phenomena relationship in which the situations brought about by the mainstream policies directed how actions took place. The approach reflected the explanatory nature of case study research strategy.

However, Stake (2008) points out that qualitative researchers generally tend towards perceiving a series of events as a complex causality and are not only singly caused as in explanatory research strategy. The context in exploratory research represents the investigation of causalities from the dynamic relationship perspective. For example, the policies of ACAP (Annapurna Area Conservation Project) in Jhong had triggered the actions to form organisations based on a village governance structure to maintain the autonomy of forests. Similarly, the concept of tourism through heritage conservation had triggered the local to change their livelihood from trade to tourism and also rehabilitated their old houses into hotels.

Cases may be defined based on their exploratory or explanatory nature or both. The cases were sometimes determining (explanatory)-for example Schloss Tempelhof and Hurdal EV or triggering (exploratory)-for example Bandipur Bazar and Jhong. As such, the study examined causalities and associated contexts that determine and trigger any social actions in the cases. The focus was on understanding situations-how social phenomena and contexts are related. In synthesising and analysing the data, the PhD researcher did not limit the study in the descriptive analysis of various events but investigated on determining and triggering factors of any events in the contexts.



### **3.2.4 Phase four- Methods of Data Collection and Analysis**

In case study researches, data were drawn from multiple resources to capture cases understudy in their complexities and entireties. For explanatory case study research strategies, the study developed a data collection process as per instrumental interests. For example, in Schloss Tempelhof and Hurdal EV, different secondary sources were identified to develop the questionnaires for semi-structured interviews, things to observe, and development of protocols for investigation, deciding on the selection of cases, and conduct of pilot studies.

A pilot study refers to a trial study made before the actual study for refining data collection plans concerning both the content of data and the procedures to be followed (Yin, 2014a). Furthermore, Stake (2008) and Merriam (1998) focus only on piloting the tools of data collection (Yazan, 2015).

The study executed a pilot case study in villages in the Lower Mustang: Ranipauwa, Khinga, Lubra, Kagbeni, Jomsom, Putak, Chyongur, and Jhong in 2014 to reflect on the application of different methodical procedures and the contents of the investigation topics. The pilot case study involved five sources of evidence as outlined by Yin (2014a): observation, semi-structured interviews with the local actors and government officials, analysis of government reports and other research documents, participants' observations and physical artefacts. However, in the pilot case study, most of the information was in the form of meanings and narrations that lacked logical explanations. Such interpretations could not supplement the sustainability discourse based on the EV categories. The pilot case study revealed some of the necessary changes to be made in the process. For example, the term sustainability needed translations into some tangible local contents that the local actors could comprehend, for example, conservation of different natural resources. Similarly, the pilot case study also revealed that the researcher required to build trust by participating in their local activities before conducting interviews.

#### *3.2.4.1 Data Gathering*

According to Yin (2014a), there are three guiding principles of case study researches, a) evidence from two or more sources, but converging on the same set of facts or findings for triangulation, b) a formal assembly of different evidence distinct from the final case study reports that help to understand how to handle or manage data, and c) the links between the questions asked, data collected, and conclusions are drawn.

The study integrated data by triangulating all possible evidences, for example secondary sources, observation and interviews and eventually applying the prior developed theoretical propositions, for example EV themes, to broaden the range of legitimate data for the case study research strategy (Yazan, 2015). This is related to developing concrete strategies to gain the necessary investigation skills (Yin, 2014a).

Furthermore, the PhD pilot case study also highlighted to prepare adaptive plans and contingency strategies in dynamic data collection circumstances, for example gender differences. After the pilot study, the researcher reformulated the interview questions and prepared and improvised techniques of rapport building. The initial step of rapport building process was to connect to gatekeepers, which was lacking in the pilot study. The pilot case study also helped on how to identify sources of evidences and the strength and impact of each evidences.

The pilot case study also revealed that the researcher could not conduct participant observations in multiple cases. Participant observations require researchers' involvement in interpretation and direct the process of interpretation, which was beyond the study's scope. However, the researcher disclosed some of his personal experiences, feelings, or beliefs to the local actors in the data collection process. For example, the researcher did not conduct pilot case studies in Schloss Tempelhof, and Hurdal EV but shared some of his experiences related to certain actions with the local actors and vice versa before conducting actual field assessment. In Jhong and Bandipur Bazar, the researcher manifested sustainability through household examples that facilitated the local actors to get the glimpse about the topic and themes, for example smokeless kitchen in Jhong and heritage conservation in Bhaktapur city. This allowed the researcher to direct the local actors to contents and themes of the research topic.

Based on the limitations and experience in the pilot case study, three data collecting techniques were used: observation, interviews, and document analysis. Furthermore, the pilot case study highlighted some of the field visits strategies: importance of selecting types of questions, questions to avoid, probes, development of guidelines based on rapport building, beginning of the interview, interactions with the interviewees during and beyond the interviews, and recording and evaluating interview data. For example, the process of rapport building was important before actually conducting the research, and also relating the topic of discussion to physical manifestations that the actors could actually perceive and relate to their lifestyle.

The pilot case study also highlighted difficulties of an organised data collection procedure because data collections frequently led to some fundamental alterations in the inquiry process. The interview questions were reformulated so that the local actors could connect inquiry to their daily lifestyle or to the materials, activity, or phenomena that they could easily comprehend, for example, connecting forest management activities of ACAP with Jhong's endogenous governance structure. The alterations were because of the differences in varying case contexts and the researcher's objectives. For example, the respondents might have heard terms like Ecovillage, but could not perceive them physically in relations to their lifestyle in case of Jhong. In case of Schloss Tempelhof and Hurdal EV, the purposes of EV were different. As such, the researcher needed to acquire some necessary skills, especially in the case of rapport and trust building techniques. During the case study research in different cases, the researcher attempted to link between the interview questions, data generated from multiple evidences and consequently draw the findings based on the EV themes. On the one hand, the researcher kept constant concentration on the link between the data collection, questions and theoretical schemes to organise the holistic coherence of the inquiry through EV themes - an explanatory case study (Yazan, 2015). On the other hand, the researcher grounded the tools and procedures for local actors by altering them to reflect upon for further interpretation- an exploratory case study (Yazan, 2015).

In conclusion, the pilot case study also revealed that the same methodical tool could have different processes and would adapt accordingly if the researcher attempted to acquire data to provide information in narratives (exploratory) or logical arguments (explanatory). The methodical tools presented in the following paragraphs illustrate the adaptive nature depending on the dynamics of the cases that included the researcher, local actors and their relationships during knowledge generation. The following sections present the three data collecting tools used in chronological order in different cases.

### *1) Document Analysis*

Document analysis is one of the methods to collect data from secondary sources. It understands human actions and contexts where actions have happened and are encoded by different people or researchers in written forms, for example text books, newsletters, and memoranda (Gall, Gall, & Borg, 2003b) either in printed or electronic material (Bowen, 2009). Other written media can be scientific publications. A document comprises writings and images that have been recorded without interventions of researchers (Bowen, 2009).

### *a) Planning and Preparation of Document Analysis*

The study used research documents that included theses, published scientific papers, and project reports, in English language as far as possible and easily available on public domain. Non-scientific writings and advertisements were avoided as far as possible unless they were triangulated through either published scientific papers, observations or interviews. Only the documents that had some relevance to sustainability in the keyword, topic, key concerns and content in their respective disciplines or research contexts were selected. The descriptive data were selected as far as possible to avoid any analytical and biased information that have certain outputs and might influence the outcome of this research.

### *b) Collecting and Treating Data*

Collection of data from document analysis involves an iterative process of skimming (superficial examination), reading (through examination), and interpretation (Bowen, 2009). The study involved collection of credible and authentic information through various resources and then analysed and synthesised the results without being influenced by the sources' analysis as far as possible.

#### *Collection of Documents*

In this research, documents were collected through online databases of public domain in all the cases. Most of the documents were theses, and scientific published articles of researchers from different expertise, critical reviews written by different reporters, and newsletters on corresponding Web Pages that were credible and reliable. For example, in the case of Schloss Tempelhof, documents included scientific publications, and project reports prepared by other researchers at different times. Some of the media also included written blogs from the participants, posters, newspaper articles written by different reporters, and newsletters in EVs web page that were cross-verified later through other evidences. In the case of Hurdal EV, documents included published journal articles, project article written by one of the founding members, newsletters published by Hurdal EV on its webpage, and blogs from the residents and visitors. Similarly, in Bandipur, the prime written document was article written by Bandipur Eco Tourism Project's project director. In the case of Jhong, the researcher could not find any scientific publications directly related to Jhong. There were some articles based on archaeological findings done in different parts of the Lower Mustang region, including Jhong. Five theses on the Annapurna Conservation Area (ACA) were available, two by PhD researchers, and three by Master students. Apart from that, the researcher also retrieved the

master plan published by DDC, Jomsom, some ACAP reports, and some articles published on the Annapurna Conservation Area Project (ACAP).

Most of the documents were written in English language. Written materials from the blogs and WebPages of Schloss Tempelhof and Hurdal EV were in German and Norwegian language respectively. They were auto translated to English by Google Translate. All the above-mentioned documents were available on online databases. The researcher received the printed form of the Master plan as a gift from DDC. The researcher also photographed several pages of ACAP report from ACAP library in Pokhara.

### *Categorisation and Thematization*

According to Bowen (2009), document analysis is an iterative process of content analysis and thematic analysis. Content analysis is often referred to as quantitative analysis because it obscures interpretive analysis, (for example, see (Gall et al., 2003b). However, Bowen (2009) defines content analysis as the process of reviewing document, in which meaningful and relevant data are identified without quantification. Similarly, thematic analysis is a form of pattern recognition within data, with emerging themes becoming the categories for analysis (Bowen, 2009). This means that themes represent certain patterns in the relevant data that help for further categorical analysis. Methodically, this would appear that categorisation involves preliminary document review that focuses on the relevance of the data and thematization seeks recognition of patterns into codes or themes constructions that are pertinent in a phenomenon.

As content analysis, the study selected relevant description data of certain actions and practices, that were close to EV's sustainability: economic, social, and environmental aspects, from the documents in all four cases. For Schloss Tempelhof and Hurdal EV, documents had contents related to eco-sensitive activities. In the case of Bandipur Bazar, documents were related to the Bandipur Eco-cultural Tourism Project. The contents of the documents highlighted some of the activities related to heritage conservation, which were used to revitalise the community. In the case of Jhong, documents were not directly linked to Jhong. For example, these were related to the forest management in the ACA region, traditional institutional adaption to climate change in the Mustang region, sustainable livelihood of people of Kagbeni through tourism, farming flexibility in Muktinath and Jharkot, and common pool resources and livelihood in Thini. Further, there were scientific articles published with topic on archaeological findings, architecture, settlement planning, community participation and ACAP.

Then, the actions and practices illustrated in the documents were thematised according to their pattern of occurrence and purposes as per the three themes of EV's sustainability: RM, CO, and KS, which were used later as the category of analysis. The document analysis was done twice : first, before going to the respective case settings to get acquainted with the scenarios and thematising relevant actions accordingly; second after coming back from the field and taking observational notes and interviews from the local actors, for categorising the data as well as validating the data.

### *c) Evaluating the evidence and data*

According to Bowen (2009), researchers evaluate the original context of the document that facilitates researchers to interpret the data and evaluate their relevance in the present context- the context of hermeneutics. According to Hodder (1998), hermeneutic interpretations are presented in relation to two contexts- first, the context of documents when developed and second, the present context of interpretation.

In the study, interpretations were iterated across space, time, and cultures of respective case settings. Even within the same case, documents were prepared in different spatial and temporal settings. For example, in Schloss Tempelhof, most of the documents selected were prepared after its designation as EV. There were few documents that were produced during their struggle period of Pre EV-designation. Similar was the case with Hurdal EV, in which the data were mostly on how Hurdal EV survived from their struggles to current scenarios. In the case of Bandipur Bazar, documents were mostly prepared after the success story of BECTP. For Jhong as well, the documents highlighted the scenario before and after ACAP, but were mostly produced after the success story of ACAP.

As a result, the descriptive data were evaluated that allowed experiential interpretations based on the EV themes. The evaluations of data were very crucial because the data had to correspond with the study's theoretical assumptions, purposes and research premises.

### *2) Observations*

Although interviews were the most effective tools to collect local actors' perceptions, the researcher also relied on using observation as a data collection technique. According to Baker (2006, p. 172), observation is a complex method that often requires different roles and uses a number of techniques to collect data within their natural and real life situations. In observation, individuals and phenomena are observed for a certain period to obtain reliable data.

Observation allows researchers to formulate their version of what is occurring, independent of other participants (Gall et al., 2003b).

Yin (2014a) distinguishes two kinds of observation depending on the involvement of researchers: direct observation, and participant observation. Similarly, Denscombe (1998b) divides observation into systematic and participant observation based on the purpose and types of data: quantitative and qualitative. Baker (2006) suggests that there are four roles of researchers to study and develop relationships with insiders in qualitative researches. Similarly, Gall et al. (2003b) also share four types of observation in qualitative researches depending upon the roles of researchers. They are complete observers, observer-participants, participant-observers, and complete participants.

At the extreme role of complete participants, researchers convert to genuine membership during researches' period. As complete observers, researchers maintain complete detachment from study-settings. As observer-participants, researchers primarily act as observers, entering settings only to collect data and casually interacting with individuals or groups in observation. In the participant observers' role, researchers observe and interact closely with individuals to establish a meaningful identity. However, they do not engage in activities that are at the core of groups' identities (Baker, 2006; Gall et al., 2003b).

In this study, the researcher acted as an observer-participant during data collection in Schloss Tempelhof, Hurdal EV and Bandipur Bazar, and maintained the identity as researcher throughout the data collection process. The researcher neither participated in any activities in the setting nor gave opinions regarding the community and surrounding. In the case of Jhong, the researcher acted as a participant-observer. The researcher maintained his researcher role even during participating in different activities. For example, consultation in house constructions using local materials, providing opinions on general topics like development of Jhong, developing organic farming and other activities. The researcher avoided giving opinions on the topics of social roles and activities, like forest management, community meetings and other insiders' roles that were associated with the cultural values. Another important aspect of observation was having multiple observers that lessens the burden on each observer and allows for more observation time. For example, in Schloss Tempelhof, the translator accompanied the researcher. In the case of Jhong, the researcher shared the observations with fellow researcher from the University. This also facilitates to validate data by cross-checking each other's findings and eliminating inaccurate interpretations (Gall et al., 2003b).

## **a) Planning and Preparation of Observation**

Some of the important tasks that observers need to prepare before field observations are- access to settings and selecting the topic.

### *Access to settings*

In this study, the researcher initially attempted to get necessary permission from institute, local community and government authorities before going to the case site. For example, in the case of Hurdal EV and Schloss Tempelhof, the researcher contacted key personnel from respective communities. In Hurdal EV, the researcher booked the accommodation in the EV. The researcher perceived it as an opportunity to feel the setting by staying in the EV. In Schloss Tempelhof, the researcher booked a guided tour, and seminar aiming to get acquainted with the settings as well as to identify key personnel to interview. In the case of Bandipur Bazar, the researcher received contacts from one of the personnel from NTB (Nepal Tourism Board), who had worked in Bandipur area to develop community-based home stay programme. The researcher booked the accommodation in Bandipur and got other contacts during the stay. In the case of Jhong, the researcher got contacts from DDC (District Development Committee) Jomsom. It also helped to find and coordinate meetings.

Furthermore, the aforementioned discussions on the researcher's role at different cases indicated the researcher's insights about the need to present differently at different cases. For example, in Schloss Tempelhof and Hurdal EV, the researcher presented learning attitude as they are conceived as learning centres; in Bandipur Bazar's case, the researcher adapted a tourist attitude as it was a tourist destination; in Jhong, the researcher portrayed as an architect to build rapport and gain trust. This would appear that in different research settings, researchers need to be adaptive to correspond to the dynamics of research settings.

### *Selecting the topic*

Selection of the topic of observation depends upon researchers' roles, from complete observers to complete participants. In this study, the topics to observe were different in different cases and were also dependent upon the researcher's role. In Schloss Tempelhof and Hurdal EV, the topics of observation were focussed on various ecologically sensitive actions and practices that they redeem as sustainable actions. In the case of Bandipur bazar, the topic of observation was heritage conservation related actions that helped to revive the community in tourism sector. The researcher was a complete observer participant in all the above three cases. In Jhong's case,



the researcher was participant-observer and was more focussed on the local people's day to day activities, which they were performing for a long time.

### **b) Collecting and Treating the Data**

In observation, the observers decide the topics based on observers' relation to the settings and availability of accesses to information. On fields, observers need to consider the following aspects during collecting observation data and treating them for analysis, validation, and reliability of data.

#### *Recording the observations*

The researcher used written and video forms of recording observations. In Schloss Tempelhof, visual recordings of the setting were recorded in the group-guided tour and made written notes with the help of Smartphone. The recordings were transferred to laptop in the evening. In Hurdal EV, Bandipur, and Jhong, the researcher recorded some visuals during reconnaissance. The recordings were supplemented with corresponding written field notes in a field diary of visits. In all the cases, the field notes were translated into descriptions and reflected based on the researcher's perception of the settings.

#### *Determining the focus of observation*

In all the case visits, the researcher attempted to get well acquainted with the setting in the first few days. Except in the case of Jhong, the researcher had certain information and understanding about the settings of the three cases through secondary sources, for example written and published documents and Web Pages before going to field visits. The researcher apprehended settings before field visits to cross-check his reflection based on the secondary sources during field visits. It saved few days for understanding the research contexts (see sections 5.1.2, 5.2.2, and 5.3.2). In the case of Jhong, the researcher visited several times and spent several days to get impressions of the setting. The researcher identified several key areas of activities and attendant personnel, for example farming, village meetings and key informants. The researcher perceived this phase as the identification of key informants of the community, with whom the researcher could get data through interviews.

#### *Holistic perspective*

During the observation, there were many instances in which certain activities were associated with certain social reality, as Gall et al. (2003b) have stated. Almost all the actions that the researcher marked as sustainable actions overlapped with certain social realities that were not

referring to sustainability. Selected actions could not be thematised into specific theoretical categories because their interpretations overlapped with different social realities. As such, actions are observed holistically based on social reality that enabled the researcher to transgress beyond the theoretical categorisation of activities. For example, in Jhong, the data on forest management overlaps with resource management, a base for community organisations, and the knowledge. Similarly in Schloss Tempelhof, the communal ownership of the resources were reflecting more to equity in access to resources than the environmental responses.

### *3) Interviews*

Interview is a two-way conversation between a researcher as an interviewer and participants as interviewees. Interviews involve a set of assumptions and understandings about the situation which are not normally associated with casual conversations.

The interviews conducted had in depth information from real contexts, in descriptive forms of which were then explained through EV themes. The interviews were designed differently at different research settings because the selected cases selected were different; for example, socio-cultural, geographic, and economic conditions and different intrinsic interests. Consequently, the modes and duration of interviews, the assumptions, explanations, and understandings were moulded for different cases. In each case, the reflections from interviews were analysed, presented, and reflected in a common pattern of descriptions, based on their historical significances.

The interviews had two major contributions. First, in each case, several previous researchers had done in depth interviews based on their research topics and projects. Regardless of the purposes of researches, most of the interviewees' information was same. Consequently, the interviews were more focussed on the actors' reflection on other researches' interpretations. Second, prior to the field visits, the researcher had certain facts and reflections through other information sources, for example theses and scientific articles as in case of Schloss Tempelhof, Hurdal EV and Bandipur Bazar or mostly documented in similar other contexts, for example Kagbeni, and Tetang that have similar contexts to Jhong. The interviews helped to supplement, verify, or detail out the available information and their corresponding interpretations. Hence, interviews were used with other methods, for example, documentation, archival records, and cultural artefacts, to corroborate facts and the context of interpretations.

#### *a) Planning and preparation for interviews*

Before commencing interviews, the researcher designed interviews based on Denscombe (1998a)'s four steps of preparation: the topic of discussion, choice of informants, authorisation, and arranging the venue.

#### *The topic of discussion*

Concerning the topic of discussion, Denscombe (1998a) states that researcher might not have preconceived ideas about crucial issues and the direction of conducting interviews. However, in practice, it is unlikely to happen. In the PhD research as well, the researcher approached every interview with some agenda and strategies. The strategies were based either on previous interview findings from same cases (for example, the pilot case study in the Lower Mustang; see section 3.2.4) or secondary sources (for example, documentation, or reports on same cases done by other researchers in Schloss Tempelhof, Hurdal EV, and Bandipur Bazar; see sections 5.1, 5.2, and 5.3). Most of the information appeared as long narratives. The data were analysed and structured based on the historical significance and then thematised according to the EV themes.

#### *Selecting Interviewees*

Fundamentally, researchers can randomly select informants for interviews. In practice, interviewees were chosen deliberately because of their positions they hold in the community or their active participation in various activities in the community, mostly gatekeepers (Denscombe, 1998a).

In the study, the interviewees were selected, as far as possible, according to their positions and the information they hold that might contribute to knowledge generation. The entry point was to identify interviewees based on their previous contributions on secondary sources. Such methods facilitated understanding the context of previous studies' results. For example, in the case of Schloss Tempelhof, Hurdal EV and Bandipur Bazar, the researcher started interviews by referring to the purposes and findings of other researches in which the interviewees were participants.

#### *Authorisation*

The researcher got suitable referees to do field visits in different communities. NTNU and IOE as the academic referees helped the researcher to get authorisation not only for conducting the interviews, but also for participating in various activities within the community (see each case study in Chapter 5).

### *Arranging the venue*

In the PhD research, before fixing interviews, the prospective interviewees were contacted prior and informed about the topic and purpose of interviews and the research, the time and place were fixed according to their priority as far as possible. Furthermore, in group meetings in Jhong's case, seating was arranged without discriminating any interviewees or hiding any individual at the background. People generally tend to shy away from questions. Prior contact also helped the researcher to inform the research topic in advance as well as give them time to rediscover and reflect on the topics. The interviewees were likely to come with some thoughts. This was one of the research plans, which was very important for getting the experience-based thoughts and information through interviews.

### *b) Collection and Treating interview data*

Even though the PhD research aimed to combine qualitative and quantitative evidence sources in each case, the research opted to an extensive use of qualitative data sources because of its socially influenced epistemological stance. The research exclusively used qualitative data sources and subsequently used them for meaning making through interpretations

The following section highlights different modes of collection and treating data with minimum biasness and modification.

### *Recording the interviews*

Audio recordings were made either with the help of Smartphone and supplemented through field notes. Permissions from the interviewees and concerning authority with whom they are associated (if any) were taken in prior to audio-recording the interviews. Few interviewees declined the audio record and even taking pictures as well, for example in Jhong. In such circumstances, the researcher limited the data collection to field notes. Furthermore, in Jhong, the interviewees did not even grant to take interview notes, the researcher had to depend only on notes taken quickly after completing the interview or during the interview. Such field notes were the researcher's reflection on their verbal explanations.

### *Semi-structured and Unstructured Interviews*

Semi-structured and unstructured interviews were conducted according to the nature of respondents. If interviewees had ideas about the research purposes, it was easier to conduct unstructured interviews, for example, in Schloss Tempelhof and Hurdal EV, it was easier. For interviewees who did not have any ideas of the research purposes, semi-structured interviews

were conducted as far as possible. For example, in Bandipur Bazar, the interviewees tend to divert from the research topic to the BECTP's success story. In Jhong's case, the interviewees tend to divert in relation to cultural values and the researcher's professional and economic background. Nevertheless, both types of interviews were used in a continuum in some interviews depending upon their situation and context.

Irrespective of the types of interviews, in the beginning, they need opportunities of formalities that help to build up trust and rapport environment (Denscombe, 1998a). The ways of rapport building varied in the study according to contexts, because of their different contextual background. Irrespective of the different contexts, the interviews usually started with greetings in their respective language, and a smile.

Semi structured interviews involved asking a series of structured questions in addition to deeply probing through open-form questions. Such methods helped to obtain additional information or explore deeper into thoughts. Some of the questions created enthusiasm and curiosity in the respondents to speak out their experiences. For example, in Schloss Tempelhof, Hurdal EV and Bandipur Bazar, interviewees talked about their struggle period with greater enthusiasm. The respondents can connect to their daily lives that trigger them to express their deeper thoughts. In the case of unstructured interviews, the respondents continued speaking after initial introduction. A general query about their position and their role in their respective communities could help the researcher to understand the context and revealed the background of the information. Most of the empirical data from the interviews came in the form of narratives. As narratives, respondents told their story on how they experienced different phenomena in their contexts, which they reflected on.

#### *3.2.4.2 Analysing Data*

The study's challenge was to analyse the data that had different forms and meanings to come to a consensual interpretation. Tesch, R. (1990), and Gall, Gall, and Borg (2003a) present three classifications for analysis of data: structural analysis, interpretational analysis, and reflective analysis. The following paragraphs attempt to link the classifications with reference to the PhD research.

Structural analysis refers to the process of analysis through seeking pattern inherent in data (Gall et al., 2003a). In the study, the researcher structured actions based on the three pillars of sustainability: environmental, social, and economic. However, the challenge was to structure actions and phenomena into three pillars as the relations and interactions because of the

respondents' perception of the actions being different from notions of sustainability, especially in Jhong. In response, the researcher interpreted the term through various physical manifestations and categories, for example three EV themes. Such categories helped to determine which phenomena (actions and practices) share appropriate similarities and occurrences of same categories. This process of interpreting data, and then describing or explaining the phenomena under the study based on the common patterns and themes is called interpretive analysis(Gall et al., 2003a).

During field studies, through data collection methods (see section 3.2.4.1), various actions, visions, and research topics were gathered from multiple cases (see Chapter 5). The aim in each case was to come upon or discover the EV themes . Here, theme is referred as the salient or characteristics features of each case. The researcher generalised the constructs and themes across multiple cases- if a theme observed in one case was also occurring in other cases. Actions which were categorised as the manifestation of certain theme in one case were compared to similarly categorised phenomena in other cases. For example, organic farming, which was considered sustainable in Hurdal EV had similar themes of interactions in Jhong regardless of different goals and purposes. Multiple cases data can be analysed to detect relational and causal patterns that help to explain how and why questions. Such analysis process refers to interpretational analysis (Gall et al., 2003a).

Furthermore, the researcher also connected the reflections on respondents' interpretation to the three EV themes. Such circumstances made the categorisation, exploration, and validation more difficult because the reflections were based on the researcher's intuitions and did not involve explicit procedures as in the case of structural and interpretational analysis. This process of analysis based on researchers' intuition and judgement to evaluate the phenomena under study is referred as reflective analysis(Gall et al., 2003a). The process of categorisation into three EV themes was instrumental and did not present respondents' actual reflections.

During the data analysis, the researcher realised that initial protocols of structural analysis were linear and concrete that did not address the dynamics of field situations, varying contexts and most importantly the knowledge situation of respondents. There were patterns of actions in phenomena, but patterns of interpretations varied because of different values and purposes. For example, the concept of organic farming despite having common patterns have varied purposes and value across different cases. As such, the researcher pursued various forms of analysis rather than strictly following the prescribed structural analysis sequence. The researcher changed the features of data analysis by integrating interpretive and reflective analysis.

In accordance to Merriam's analytic techniques, first, the study undertook data analysis as the process of making sense out of the data. The process involved consolidation, reduction and interpretation of what people said and what the researcher saw and read. The researcher pursued Merriam's constructivist approach, by making respondents' interpretations of the reality more concrete based on the context of data collection, and their reflection. For example, the descriptive data of key historical turning points in each case were reflected as causalities for further explaining the key points.

Second, following the pilot study-based approach, the researcher expanded the simultaneous data collection and analysis process- a characteristics of structural analysis. As a result, in each case study, the narrative was also reflected on and were analysed based on thematic categorisations: RM, CO, and KS. The methodical procedure inclined the study more towards exploratory nature than explanatory strategy. The researcher focussed more on the analysis during the study period- the data collection and after data were in.

#### *3.2.4.3 Validating and Reliability of Case Study Findings*

According to Yin (2014b), case study researchers need to guarantee construct validity (through triangulation of multiple sources of evidence, chains of evidence, and member checking), internal validity (through use of established analytic techniques such as pattern matching), external validity (through analytic generalisation), and reliability (through case study protocols and database).

The researcher tried to validate case study findings by presenting a strong chain of evidence (interviews, observation, and documents analysis) and creating a meaningful link between the research questions, data, and findings in different cases. The researcher aimed to create causal relationships that would help to explain the phenomena. Furthermore, the researcher also attempted to find a pattern matching across different cases to strengthen the causal interferences through the interpretive categories: RM, CO, and KS. Such process of checking validity and reliability involves explanatory research strategy.

However, the concept of validity and reliability through common and generalised theory was not possible because of socially constructed multiple interpretations. Among many, the pilot case study revealed that one of the reasons for EV's sustainability issue was related to the methodological implications; several EV researches attempted to ascertain common definition of sustainability despite the contextual diversity rather than incorporating their context-based interpretations. Epistemologically, it refers to multiple interpretations of EV's sustainability at

different contexts and there is no generalised definition for spatially and temporally dynamic context. Or in other words, there are different knowledge productions for a given case that indicates researchers' different ontological positions in the case. Methodical and analytical tools, for example structural and interpretive analysis, do not reckon the diverse knowledge production as a product of construction or reflection between the 'knower' and the 'known', who have different philosophical assumptions.

As such, it was difficult in the study to conduct data validation from Yin's perspective, that is converging to the common interpretation. In myriads of having multiple interpretations and reflections, Stake (2008) emphasises on developing the interpretations along with accurate description of the cases. For the study, it meant to develop the most credible interpretation or knowledge about the case, which differed from initial Yin (2014b)'s approach. This mode of checking validation and reliability indicated the exploratory nature of the cases and presented the detail descriptions of relations and interactions. From the ethical considerations, it is important to minimise the misinterpretation and misrepresentation (Yazan, 2015).

In the PhD research, the pilot case study facilitated the researcher to develop the assumption that reality is holistic, multidimensional, and dynamic, which was also highlighted in ontological and epistemological questions. During the pilot case study, the researcher altered the scope of validity from Yin's perspective to Stake's broader perspective following Yazan (2015, p. 146)'s claim. Under such varied philosophical variations, the study combined Stake's credence of interpretations (exploratory findings) with Yin's methodical convergence of data (explanatory findings).

Methodically, it is a challenge to reconcile validity and reliability of explanatory research strategy and multiple interpretations of exploratory research strategy that represent two completely different epistemological commitments. In such methodical dilemma, Merriam exhibits data validation based on the assumptions that reality is not a single, fixed and an objective phenomenon that can be discovered, observed and measured but is holistic, multidimensional and ever-changing (Merriam, 1998 cited in Yazan, 2015, p. 147).

Based on Merriam's perspective, the researcher considered six strategies to enhance internal validity: triangulation, member checks, long term observation, peer examination, participatory research, and disclosure of the researcher's bias. Furthermore, three techniques were used to ensure reliability: explaining the researcher's position and ethical considerations, triangulation,



and audit trail. Similarly, three techniques were used to enhance external validity: use of thick description of data, typicality and modal categories, and multi-site designs.

According to Stake (2008), triangulation is a process of using multiple perceptions to clarify meaning, verifying the repeatability of an observation or interpretation. However, no phenomena and their subsequent actions and interpretations are perfectly repeatable. In such instances, triangulation also serves to clarify interpretations from different ways of perceiving the phenomena. According to Yazan (2015, p. 146), Stake proposes four strategies for triangulating data: data source triangulation, investigator triangulation, theory triangulation, and methodological triangulation.

The study triangulated the data sources from other sources. The researcher collected primary data through observation and interviews and corroborated with other researchers' observations and interviews. The researcher also corroborated the data collected from the interviews, observations, and different multimedia. Similarly, the data were also triangulated with other researchers' data in their researches. The data were cross checked through different methodical tools. For example, in the case of Jhong, data were collected twice as a direct observer and as a participant observer.

Triangulation does not necessarily produce convergence or consistency of data. For example, in the case of Jhong, the interpretations of data collected as a direct observer were incongruent with interpretations of data collected as a participant observer. Furthermore, there were also incongruence depending upon characteristics of respondents and the researcher and their relationships: old vs. young, female vs. male, theory vs. practice, researcher vs. respondents, local vs. government. For example, in the case of Jhong, as a direct observer, the data related to forest management were in the form of activities focussing on the use of forest resources. As a participant observer, the data mainly reflected the use-ownership of the forest and decision-making process in the management of the forest resources. The forest management process was perceived differently by the local and the outsiders (including the researcher). For the locals, securing their ownership was important, and for outsiders (for example ACAP), resources preservation was important. In incongruency in interpretation, it is still possible to validate the conflicting data by reconciling within some explanatory framework (Gall et al., 2003a). For example, three EV themes were used to order the interpretations and the activities. Similarly, internal validity can be checked through long term observation by gathering for a long period of time and making repeated observations. The researcher followed the

development in Schloss Tempelhof and Hurdal EVs, through online newsletters and web pages till the writings of monograph. In the case of Bandipur Bazar, the researcher continued other researchers' studies. In the case of Jhong, the researcher continued his involvement in some off-thesis projects to follow up the development in the village. The followed up continued till the end of 2018.

The researcher was also clear in presenting the politics and ethics associated in the research (see section 3.2.1), triangulation (as explained in this section) and audit trail. Audit trail documented all the key stages of research studies and revealed the key research methodology decisions as five different phases of the research in this chapter (See Figure 2).

For external validity, the researcher developed descriptions in all four cases in the form of narratives based on the historic development of each community. Based on the interpretive analysis for explanation, the researcher applied EV themes in all four cases to categorise and reflect actions. The EV themes thematise the pattern of interactions rather than values and goals of those actions. The sections of reflections after each historic segment of narrations and categorisation in each case were the results of the phases involved in the data analysis and interpretations. Each case description, analysis and reflections presented contexts of the cases and the research through both explanatory and exploratory strategies.

### **3.2.5 Phase five: - Knowledge transfer from the field works to analysis**

Sections 3.2.4.2 and 3.2.4.3 (analysing data and validating data) illustrated the antinomies in the case study research because of the epistemological variations between exploratory and explanatory nature of the cases. Under such dynamic research conditions, epistemological stances became dialectical on how to investigate EV's sustainability considering dynamic space and time aspects of the cases. Further, epistemologically, EV's sustainability was also rendered based on the accounts of subjective meaning provided by cultural values and the objective conditions within the mainstream institutional perspectives. From the research's hermeneutics perspective, the challenge was to manifest the human actions based on the local values into the mainstream institutional frameworks within whole-part relationship. The 'whole' represents the mainstream institutional framework of the context that influenced the actions and the situation (space and time) and where the relationship between the context in the form of local values and mainstream institutions and phenomena is either explored or explained.

The study adapted the conceptual structure to conduct the case study in four cases (see section 3.2.2- Selecting the cases). The study started with the exploratory case study through

descriptive narratives based on the interviews, observations, and document analysis. However, as a holistic storyteller, the researcher had criteria for selecting the content. The content was mostly on what represented the uniqueness of the case most, based on the cultural values of the cases. For example, in Schloss Templehof, the content was selected based on their reasons for organisations, that is values of intergenerational living. Similarly, in Hurdal EV, the contents selection was based on natural living. The Bandipur Bazar case was heritage conservation for tourism, and finally, Jhong's contents were based on resource ownership values. Furthermore, the contents also had roles in collaborating with regional actors and mainstream institutional frameworks, that on the one hand retained the value identity of the communities, on the other hand, contributed in building regional identities. Stake (2008) explains that these are subjective choices based on the interactions between researchers and respondents unlike all those that researchers make in choosing what to study. Some choices were made in designing the case study research, and some were continued to be made through the data collection process. For example, the cultural values and region of EVs sustainability as criteria were developed after understanding the sustainability gap when the EVs collaborates with the mainstream institutions.

Moreover, , EVs' values and goals do not necessarily intent towards sustainability even though communities are called sustainable communities (see section 5.1 and section 5.2). As such, why and how local actors participated in different social actions or how communities run their day to day management by keeping them intact were parts of the inquiries. These were more general inquiries to learn and mostly reflected their subjective values. The inquiries not necessarily explained EV's sustainability characteristics. Nevertheless, they helped to understand how the communities perceived their existence and presented actions and happenings as per their cultural values which Stake (2008, p. 145) calls 'experiential knowledge'(Stake, 2008, p. 145). The researcher eventually reinterpreted the descriptive explorations through the logical explanations of three EV categories: CO, RM and KS, and how they maintained the cultural values and collaborate with region simultaneously.

Depending upon researchers' conceptualisation of the case, concerns such as generalisability, position of the theory, causal vs. narrative analysis and authority vs. authenticity are addressed (Hammersley and Gomm, 2000 cited in Luck, Jackson, & Usher, 2006, p. 105). However, despite the study's focus on defining the cases based on explanatory and exploratory research strategies, there were always a gap in the coherence of explanations and explorations of the actions in the cases especially relating local levels and regional levels. For example, how the

actions maintained the cultural values and how they were represented in the mainstream policies were not in coherence, like forest management in Jhong's case. This is also presented in Chapter 1 of the PhD research as practitioners' dilemma in practising sustainability on the ground, and the existence of the sustainability gap. The practitioner's situations were highly influenced by two different kinds of realities- one that deals with explanations if the actions are sustainable or not according to the mainstream policies, other that deals with their relevance to the local situations (space and time) where the actions and their interpretations take place as per their shared values.

The practitioner's dilemma was also highlighted in the literature review of EV (see Chapter 2, section 2.2), illustrating the lack of acknowledgement of cultural values and regional cooperation aspects of EV in the integration process to the mainstream society. Epistemologically, EVs' cultural values represent the mode of understanding the communities, or in other words, what makes a community exist. Furthermore, regional cooperation, illustrates the context that forays causality to any actions in the mainstream society, consisting different institutional frameworks. Understanding regional cooperation unveils the series of events or changes across spatial scales, an explanatory description of causal phenomena. As such, the study highlights the dynamic position of the researcher, who had to leap from one ontological position to the other while interpreting social actions relating either internally to local values or externally to regional cooperation.

The overall methodological journey of the PhD research is summarised in Figure 2 below. The figure illustrates different phases of research methodological process and the inferences from each phase. The figure also illustrates the iterative nature of the research, which is supplemented with changing the research contexts.

The study came to a stage which argued that there was a place for both strategies, exploratory and explanatory, depending upon the theoretical construction of the case. EV's sustainability as an entity was approached through different case study research strategies depending upon the theoretical positions, either relating actions internally to local values or relating externally to regional institutions.. The theoretical positions can then be argued within the logic of the study's epistemological, ontological, and methodological approaches concerning values and mainstream institutional frameworks. The study required a theoretical system of assumptions, principles, and relationships displayed in the given contexts to explore and explain a specified set of actions in the given methodological framework, consisting both local values and mainstream institutional frameworks.

Methodologically, a case can be conceived as a bounded system (Luck et al., 2006; Merriam, 1998; Mills, Harrison, Franklin, & Birks, 2017; Stake, 2008; Yazan, 2015; Yin, 2014b). Depending on the researcher's ontological position, a case can be interpreted differently, e.g. relating it internally or externally. This shows the dynamic nature of the case especially concerning knowledge claims. For instance, EV's sustainability was sometimes analysed as based on the shared values of EV that endured actions and practices. Sometimes the analysis focussed on how far the actions and practices of EV were integrated corresponding to the mainstream policies' institutions.

While the literature study of the first part of this research attempted a holistic study of EV and acknowledged the integration of different kinds of knowledge, the methodological framework to express and communicate knowledge, for example, policies vs. actions, global/national vs. local, could not be revealed. For this reason, Systems Theory (ST) was identified as a supplement to analyse the case study findings. ST also contributed to findings from both explanatory and exploratory research in this study, and to transgress from exploratory to the explanatory case study with help of ST.

To identify e.g. a social system, a researcher needs elements from exploratory and element for explanatory. In the following chapter, system theory is introduced as the methodological approach that attempts to close the gap existing between the theory and the methods used.

**Phase 5: - Knowledge transfer from data collection to Analysis**

- Methodologically, the cases as EVs were conceived as bounded systems.
- EV's sustainability was linked to local values (actions) and mainstream institutions (policies)
- Methodological approach-The gap between theory and method was reconciled by



**Phase 4:- Methods of Collecting and Analysing Data**

- Document Analysis, Observation, Interviews (semi-structured/open ended)
- Validity-assumption was that reality on EV's sustainability was dynamic, holistic, multidimensional.
- Methodical triangulation and strong chain of evidence was made to develop causal relationship and long term observation.



**Phase 3:- Research Strategies**

- Case study-in depth, investigation of social phenomena and context, in real life scenario; causality
- EV as a case of sustainability-explanatory, and EV as a case-descriptive.
- Context and situations were the determinants or triggers of the phenomena- causality.



**Phase 2:- Theoretical perspectives**

- Socially constructed realities on EV's sustainability at different locations (ontology).
- The researcher and the respondents interacted to create knowledge on EV's sustainability (epistemology).
- Constructed findings were refined iteratively through interpretations between the researcher and the respondents.



**Phase 1: - Politics and Ethics**

- Understanding ethical and political constraints from four local settings (local respondents, local actors)
- Understanding professional ethics (institutions, funding agencies), social and moral obligations.

Figure 2. Five phases of the PhD research with changing research contexts

## **CHAPTER 4-LITERATURE REVIEW-SYSTEM THEORY**

Based on the previous chapters, ecovillage (EV) has two theoretical inferences: cultural value and regional cooperation. In sustainability, regional cooperation encompasses collaboration with mainstream development. The cultural value embeds sustainable lifestyle in actions and practices. The social norms integrate the knowledge that can transcend across space and time and provide a guideline in coordinating different individuals in future associations to achieve goals. From the systems perspectives, it refers to setting up 'relationship' to achieve specific goals based on sustainability; the relationship between individuals in an association for specific purposes and the relationship between the community and mainstream institutions. Such considerations raise two issues on the development of the conceptual scheme. The first is to sustain interrelations and organisation across space and time. The second is to develop methodological tools to understand sustainable relationships among individuals for the given situation. The study revisits systemic thinking or systems theory to understand its conceptual and methodological analysis to apply in addressing the challenges for EV.

### **4.1 Introduction**

Sustainable development has always had the challenge of perceiving from the holistic perspective- focus on the relationship between the human-constructed world (social and economic aspect) and natural (environment) world. The dichotomy of natural vs social science is also the scenario in case of EV's sustainability (See Chapter 1 and 2). In academic research, the challenge represents a dichotomy between social science and natural science. Methodologically, there is a need for tools that work in trade-offs between socio-economic technological and ecological processes (Davidson & Venning, 2011).

Recent developments in researches reconcile natural systems with human-made reality through connections, linkages, and processes-a holistic approach (Davidson & Venning, 2011). One of the ways to investigate EV's sustainability is in terms of the relationship between humans and nature. Conceptually, it diverts from the classical one-way causality that focuses only two variables: input and end, that is how an EV achieves sustainability. The challenge is also in developing the methodological framework that facilitates transgression of the research across disciplinary boundaries, for example, how EV's sustainability is perceived in different aspects of lifestyle. Among many, systems theory is seen as a strong methodological framework for understanding both natural and human-constructed worlds together. The EV's conceptual

scheme also refers to it as a whole system perspective (See chapter 2). Natural science breaks down every problem into many separate and simple elements.

In contrast, system theory enquires the whole where every smaller component is a part of a unity in a relationship and conglomerates into a bigger entity. *A unity is defined as an entity (concrete or abstract) separated from the background by the concrete of the conceptual operation of distinction* (Maturana, 1975, p. 315). Systems theory is based on the interrelations among discrete components that work together as an organisation. Unity serves to achieve particular objectives, for example, achieving different goals within EVs in a sustainable manner.

The following paragraphs provide few terminologies about different components of a system and their applications in systems theory to understand and interpret how a system works.

#### ***a) System and Environment***

A system refers to an ensemble of interacting parts, the sum of which exhibits behaviour not localised in its constituent parts. A system is a goal or objective-oriented. It can be physical, biological, social, or symbolic or a combination of these. For example, EV is conceived as a system in which different social actors coordinate to achieve certain goals. Everything except the system is the environment. An environment indicates the setting or the backdrop of which system is a part. It facilitates conditions for a system's operation and often influences goals, components of the system and relationships among the components (Maturana, 1975). For example, the study conceived mainstream society as the environment of which EV was a part, and that often influenced the actions within EV.

#### ***b) Boundary, Open and Close System- Interaction***

The boundary serves to delineate the system from the environment. For example, EV differentiated from a mainstream society based on their identities and the ways of the organisation for particular objectives. Interactions take place whenever two entities of discrete characteristics appear. They modify their relative states in the larger systems of their embedding because of the interplay of their properties. For example, when EVs interact with mainstream institutions, EVs adjust their objectives and goals due to changes in mainstream policies and institutional framework.

System-Environment interactions in case of EV- mainstream interaction indicates the input and output of the resource and information because of changes in social, economic, environmental, and cultural conditions of the mainstream institutions. As an open system, there is an exchange



of resources and information between the mainstream and the EV. The boundary between mainstream and EV depends on the exchange of resources and knowledge. Consequently, EVs' goals and identity may be reached in different ways depending upon the mainstream policies.

However, as a closed system, there is no exchange of resource and information with mainstream society. Regardless of different policy situations, EVs' initial conditions always determine the goals and identities. The assembly of isolated components and actors within EV makes the EVs isolated from mainstream societies or alternative lifestyle.

### ***c) Organisation and Structure***

Organisation refers to a unity of relations between different components that realise the system as a whole. In EVs, relations constitute the organisation of different actors that perform to achieve certain goals. They can have spatial or functional similarity, for example, working groups. The same organisation may be realised in different systems with different components as long as the components have properties that realise the required relations (Maturana, 1975; Varela, Maturana, & Uribe, 1991). For example, different working groups were formed within the EV with different actors for different goals. As such, different systems can be the same as per their relational characteristics, even though their components vary.

Structure refers to the components that build relations. Structure of a composite system determines the space in which unity exists. As a unity, space can be perturbed, but not its properties (Maturana, 1975). For EVs, structure refers to the governance structure that defines the relationships between different actors within the organisations for goals. It underlines that organisation, such as working groups and structure, for example, the governance structure is non-synonymous. Organisations are goal-oriented, and structure is backbone for organisations.

An EV as a bounded system is goal-oriented and components, such as social actors, are in complex relations of the organisation. For example, EVs have the goal to maintain its identity within the regional context (See chapter 2). Similarly, within EVs, different working groups as organisations are formed to perform various actions and practices. The starting point to understand the complexity of EV's sustainability is to comprehend the EV as a manifestation of a continuous process of social actions of beginning (conditions) and end (goals). The end eventually marks the beginning of the next series of activities -a series of input-process-output. The mainstream society and associated institutions, like components of the environment,

influence the kinds of goals that EVs tend to achieve and ultimately how EVs' components, like actors and associated groups, interact to form as a system.

Furthermore, an integrated framework also provides a sequence of feedback to the goals as well as the interactions. The feedback mechanism is one of the key characteristics of a system and causality. Thereby, a system shows the interdependency of parts that defines the wholeness. The system also reflects equilibrium, adaptiveness, and continuous re-adaptations to environmental demands as the core elements of its understanding. A system has a capability of self-organisation to respond to external interventions in a situation, for example, mainstream institutional policies. Thus, the complexity of the relations, between EVs and the mainstream institutions is a trigger mechanism for system formation. The form of the organisation describes the internal network structures of connectedness among the different elements like social actors and their associations within EV.

Systems theory identifies the process of the organisation to achieve goals rather than manifestation or constitution of participating components. Then EV's sustainability becomes a part of the process than a goal from system's theory perspective. In systems theory, space is denoted in an abstract sense, not necessarily a three-dimensional space. Space is the domain of all possible relations and interactions, defined by a collection of discrete elements' properties (Maturana, 1975). Structure of an organisation determines the kind of space. The elements do not occupy the same space. They thus are ordered in a certain way (pattern) for a given objective in a given organisation. Each element acts following others' actions. Thereby, there is a relation on how individual components act considering other components in an event and between the events. As such, in EVs, understating sustainability refers to understanding the coordination of different actors within any association and between different associations for different goals.

Systems theory considers space as a manifestation of existence, and time as the change of states in an event. Both factors are necessary for a balanced organisation. Furthermore, time provides the condition of change for the events. Concepts of autopoiesis, evolution, transformation, which relate to growth and change, respond to these features. It also illustrates the balance and equilibrium of an organisation: a manifestation of being. Systems theory considers the production of components that help to balance and retain unity and identity of a system by adapting, integrating, and redefining the relationship within the organisation.

The following section discusses how systems theory is defined and applied with a particular focus on EV's sustainability.

Any systems theory explains the relations of an object as a discrete component within the organisation (how an object is manifested in existence- space). Based on the relational perspective of the object, systems theory poses the following key strengths for EV.

First, systems theory functions in the human-constructed world and perceives human interactions. Then EV's sustainability is not only to have physically measurable goals but also to integrate them into social space through human-nature and human relations.

Second, systems theory allows integration. From the EV's sustainability perspective, integration refers to a way of living that incorporate diverse perceptions and coordinate different actions and practices to achieve certain goals after embedding sustainability.

Third, systems theory focuses on change. From the EV's sustainability perspective, EV maintains the identity by embedding sustainability in their lifestyles (organisation identity and organisation) and transforms structures and set goals under the conditions but maintain that lifestyle.

Fourth, systems theory relates to macro and micro levels. From the EV's sustainability perspective, EV as a system is bounded to the local level in which actions and practices get implemented at a local level- a micro level. Moreover, EV also collaborates with the surrounding settlements, and mainstream institutions to achieve certain goals at regional levels- meso or macro levels.

The following paragraphs discuss three different kinds of systems theory. They have a fundamental difference in how a system gets manifested spatially and temporally.

## **4.2 Three Types of Systems Theory**

### **4.2.1 General System Theory- Ludwig von Bertalanffy**

Von Bertalanffy (1972) proposes General System Theory (GST) based on Aristotle's doctrine of *the whole is more than the sum of its parts*. The properties are not predictable from a list of system's parts but the relationship between these parts in the organisation.

Von Bertalanffy (1972) outlines three important elements of GST. First, GST focuses on the internal structural description like isomorphs through mathematical descriptions of system properties (such as wholeness, sum, growth, competition, allometry, mechanisation,

centralisation, finality and equifinality) (Von Bertalanffy, 1972). Second, GST engages the complexity of using technology and its relation with society, like ecosystems, education, urban environment (Von Bertalanffy, 1972). Third, GST provides a worldview with new ontology and epistemology that covers real/physical systems, conceptual systems (mathematical) and abstract systems (Von Bertalanffy, 1972). GST is an open system and focuses on the components' teleological behaviour (Von Bertalanffy, 1972). Hence, for Von Bertalanffy (1972), a system becomes a set of discrete elements standing in interrelation among themselves and with the environment for a goal.

In GST, by drawing the knowledge of living organisms and their relations with the environment, system relationships are perceived as spatially manifested as ecological space. Ecology is not synonymous with environmentalism, natural history, or environmental science. It seeks to explain life processes, interactions, adaptations, movement of material and energy through living communities, and the successful development of ecosystems. It constitutes a variety of components in a group through functions rather than physical magnitude or dimension as in geographical and topographical descriptions (Hayward, 2013). Spatially, the external environment has a more significant role not only in terms of supply of material resources and information but also in influencing interactions within a system.

GST allows feedback processes, and the information about the system is transmitted back to it, influencing future behaviour. A system then maintains its existence through structural relations and a dynamic balance of building up and breaking down components, according to the feedback it has received. The feedback further strengthens the dynamic interdependence involving the mutual relations and reciprocal effect. The causality in GST is about how things happen, how change occurs and how events (both internal and external) relate, mostly reflecting the procedural aspects and impact of the enviroing conditions on the procedure.

#### **4.2.2 Autopoietic iv System Theory- Maturana and Varela**

Varela et al. (1991) propose Autopoietic system theory (AST) by describing a system as a living organism- a biological conceptualisation of a system. According to Varela et al. (1991), a system is an autonomous entity with self-production ability, self-processing of information and internal hierarchical relations. Autonomous capability is given by its elements' self-reproduction ability that implies the instrumental participation of components to constitute the entity, and eventually establish the organisation of the system.

An autopoietic system theory works at the micro-level. An autopoietic system manifests in physical space through internal structures of components. Actions and interactions work within a system as a real/physical organism in space. In AST, much attention is on how the internal structures change or adapt accordingly to the influence created by the environment (Zelený & Hufford, 1992). Furthermore, an autopoietic system involves organisational preservations and componential (re)production, which are the characteristics of a homeostatic system (Maturana, 1975). An autopoietic system, as a physical entity, is spatially and operationally distinct from the background. It remains so as such unless its components change permanently.

The autopoietic system has a closed boundary in which operations do not enter the system from the outside or vice versa (Seidl, 2004). However, there is an inflow of the resource material and information, but the system regulated (Seidl, 2004). In an autopoietic system, the external environment can activate an internal process but do not participate in the internal process.

An autopoietic system is dynamic and is determined by the change of states of the system and its structure. The change in its structure, in turn, is determined by triggering events in an environment- a trigger causality, which happens due to its structure (Varela et al., 1991). It is the establishment of causality as the dynamic structural manifestation- a Spatio-temporal correspondence of the changes of state with the recurrent changes of state of the medium. Under such manifestation, a system remains autopoietic and generates a process of continuous structural transformation. Transformation specifies the relations in actions that a system generates by pairing the sequence of changes of the system's state with the sequence of changes of the triggering medium's states.

#### **4.2.3 Social System Theory- Talcott Parsons**

Parsons' social system theory adopts two major features in his social system: human values, and biological sciences (Parsons, 1961). Parsons (1935) believes that human beings strive to achieve ends by applying certain rational means and adds human value to the mean-end relationship. 'Means' reflects certain actions and induces certain conditions to achieve the end. 'End' refers to the anticipation of the future for which actions are performed. Performing actions implies that certain mechanisms in human behaviour regulate them. Those mechanisms are called norms (Parsons, 1935). As such, the causality is also called performative causality (Parsons, 1935).

Furthermore, the relations of means and end for the knowledge on the actions do not develop automatically or are inherited but are the results of efforts and exercises of willingness. As

such, actions do not have any meanings apart from being means to real ends; a rational norm for a means-end relationship; to overcome obstacles by an effort to realise the norm. Opposed to Varela et al. (1991) 's autopoiesis, the end is no ultimate goal for Parsons. However, the criteria and process of selection of 'means' concerning 'end' are important. Unlike other system theories that understand the system from empirical facts (like GST) or limit human values within physical space (like autopoiesis), Parsons' SST emphasises decision-making process for the selection of means.

Parsons claims that (human) action is not only triggered by external stimuli. Instead, concerning the environment- the situation is mutually operating *in situ*. Considering the social system, it is highly improbable that different actors (or components in a system) would be able to act in the cohort as other systems theories assume. For Parsons (1961), social order highly relies on the presence of an objective regulatory mechanism that integrates all roles of social actors as components into a unified whole.

In Parsons' social system, reciprocity and actions execution are in the form of causality; however, different from GST and AST. In the case of GST, causality is linear with feedback mechanisms; end oriented and occurs in an ecological space. In AST, causality is cyclic, regenerative, and occurs in a physical environment. Nevertheless, the environment is operationally excluded and acts only as a trigger medium. In the case of Parsons' social system, causality is conditional (Parsons, 1935), socially ordered, and occurs in the environment as conditions.

However, space is not determined by natural relationships, in the form of GST's ecological space. Individual roles, who participate in the organisation, determine space. The space is social that depends on relationships of individuals and is expressed in a physical task. The regulated actions determine the quality of space, where information is transmitted and exchanged. The space of communication, where individuals orient and perform, is social space. Social space changes its boundaries as the situation and the individuals' orientation changes. The system maintains the pattern of actions across time for the given situation. The pattern of actions is stored, transmitted, and continued across time to maintain social order in similar situations. Environmental conditions and their operational changes determine the situation.

### **4.3 Social System Theory as a Tool for Comprehensive Ecovillage Analysis**

GST perceives EVs as subsystems of a bigger cluster of regions or other higher ecologically defined areas (spatial aspect). In an ecological reorganisation, each level of the hierarchy is an

independent, autonomous whole system on itself, yet intimately connected to the whole system above and below it in a dynamic, interdependent relationship. However, the hierarchical arrangement does not consider human configurations of political ideology such as nations, states, cities that exist, but many times contrary to ecological ideology. Several EVs are locally based initiatives that imply human-constructed political divisions for scaling them up in mainstream development. The absence of mainstream integration may limit the EV communities to some eco-sensitive designs only (See chapter 2).

Furthermore, perceiving EVs from GST tends to ignore the social aspects and eventually perceives human actions into statistical facts but not as communicating components (For example, see Borsos, 2009). Such perceptions make EV an idealistic concept and lack a systemic order consisting of human values.

As an autopoietic system, EVs are likely to fulfil the idea of self-sustaining and to have separate and autonomous associations consisting of social actors. They are likely to interact and communicate in a specific environment according to the system's specific behavioural rules of interaction. Similarly, EV as a social system is likely to consist of various participants and associations that follow the rules, interact, and communicate in the physical and social space.

GST perceives and locates EV as an open system in its ecological space and connections with the ecological resources, making it a part of ecological system. Then EV's sustainability becomes a part of goals based on those ecological relationships- what different strategies maintain the ecological balance. On the contrary, AST perceives EV as a fixed territory with participants following certain rules and interacting and communicating in a community in a given space. EV is then isolated and singular. The EV concept is likely to stress the removal of external coercive and props for viability. The EV concept reasserts its social boundary and voluntarily increases the cohesiveness among the members in the system to make it suitable for human participation. Most of the EVs fundamentally have the isolated ideology, and as such, are considered alternative to mainstream society.

Even though conceptually, eco-centric actions are the priority of EVs, they tend to maintain their solitary human ideology-wise. Despite their recognition as a part of a broader ecological system, they tend to maintain their integrity within the territorial boundary, like fortified or isolated settlements physically and socially. As a result, this notion of EVs ideally limits humans' participation, operation, and orientation within a fixed boundary. It is unlikely that such limitations to humans' participation can augment the EV concept into a broader spectrum

of mainstream society. This notion also reflects the sustainability gap, as highlighted in Chapter 2.

On the contrary, Parsons' social system theory (SST) incorporates broader roles of humans' values for different situations. Parsons' causality- how individuals orient themselves for a situation- is more significant for the systems than how space and environment are physically defined. The actors participating in the social organisation possess norms to perform physical tasks in the physical environment. In the EV concept, environment as a part of mainstream institutions facilitates the situation for a social relationship. The social relationship then demands different roles of individuals unified as a whole in the process of the organisation to perform certain actions. The phenomena also differentiate actions from practices.

Conceptually, EVs mention both eco-centric and human-centric visions. However, in practice, they have limited focus on either maintaining human-nature balance in an ecosystem (GST) or a single self-producing community (AST). In either case, EV could not address the dynamics of human roles and their ability to form different relationships in different situations. Such consideration limits the EV concept to groups of actions and specific goal-oriented.

Furthermore, conceiving EV as an open system also facilitates to understand the possibility of system-environment relationship based on human relationships. This concept explains the EV initiatives and their relationships with mainstream society. Consequently, this means that any social interactions comply with the ecological balance, maintain its integrity, and simultaneously be in accord with human values.

For the study on EV's sustainability, EVs requires conceptualisation as integrated into assorted hierarchical levels of the mainstream institutional framework. Epistemologically, the EV's sustainability has to go beyond its goal-oriented static concept to a process-oriented dynamic approach in combining natural science and human science worldviews. As such, methodologically, the study integrated knowledge claims of different origins-natural and social science. While natural science works within ecological reorganisation, human worldview works institutional frameworks based on hierarchical levels of control. The humanistic value of social action is dynamic because individuals decide and act in their own social space and are norm-regulated by the norms of their institutions. Furthermore, a human-constructed world works in hierarchical levels of control. As such, both GST and AST lack the methodological implications of addressing human values and institutional hierarchy.



Moreover, EV's collaboration with the mainstream society requires the simplified approach in providing tools to select appropriate means as in Parsons' SST. On the contrary, GST and AST prescribe specific actions. Such an approach facilitates understanding intermediary projects that, on the one hand, facilitate understanding EV's identity and values; on the other hand, facilitate understanding the mainstream's aspiration from such means. Then, EV's sustainability appears as the contents of different interpretations of sustainability.

In conclusion, the study oriented to Parsons' SST for the conceptual and methodological approach to explain and explore EV's sustainability. The orientation conceived EV's sustainability both as a unique case and also as a case of local-level sustainability for mainstream society.

## **4.4 Parsons' Social System Theory**

### **4.4.1 Introduction**

Referring to the social system, the most general criteria for a system is the interdependence of its discrete components organised in a certain pattern based on means-end relations. Generally, the end is perceived as a real, concrete state-of-affairs in the future or a real reference (as in the case of systems theories like GST and AST). State-of-affairs represent the situation and condition of the goal that human actions intend to achieve under changing environmental conditions. Actions are end-oriented processes (Parsons, 1935).

### **4.4.2 The Concept of Analytic Realism**

Parsons (1935) develops an integrated methodological approach for a holistic conceptual scheme based on the understanding of means-end relations. Under this holistic scheme, empirical ends can be justified by the actor as well as by the external observer. There are both objective empirical ends and subjective empirical ends, e.g. a human value.

According to Parsons, the theory is supposed to guide and structure research (Trevino, 2001). He develops methodology 'Analytical Realism'. The vantage point is to have a frame of reference that facilitates empirical investigation, a logical preliminary task for orienting empirical research (Fox et al., 2005; Trevino, 2001). A frame of reference sets the terms and categories for defining, integrating and understanding objects, knowledge and events in a meaningful human action (Fox et al., 2005). In the SST, the frame of reference is *action-situation* (Fox et al., 2005; Parsons, 1935; Trevino, 2001). The essential elements of action-situation as the frame of reference are *action*, *goals*, *affective reaction* and *cognitive*

*orientations* (Trevino, 2001, p. xxvi). For the means-ends relationship, then, goals refer to concrete ends, and affective reaction and cognitive orientation provide causes and conditions to facilitate choices of means for actions.

The basic unit of a social system is a human individual as an actor, capable of performing an action, attaining a goal and making meaning, and refers to a *unit act* (Trevino, 2001). The essential elements of the unit act are ends, means, norms and conditions. They are important to social actions regardless of place, time and socio-cultural context (Parsons, 1937 cited in Fox et al., 2005, p. 3).

Parsons (1961) perceives a social system as an open system, which interacts with enviroing systems. The enviroing systems comprise cultural, individual, behavioural systems, and other subsystems of organisms. Through the organism, actions connect to the physical environment (Parsons, 1961).

If a set of independent phenomena shows definite patterning of interaction and stability over time, then it is said to have 'structure' and treated as a 'system' (Parsons, 1961, p. 421). Under such circumstances, society as a social system maintains the boundaries with the environment and other systems. The assumption is that a boundary can be only maintained if the social interactions follow pa over time. A social system then stabilises social interactions through institutionalisation as a normative culture.

#### **4.4.3 Structural and Functional Analysis**

Analysing society through structure and function is called structural functionalism. Structural functionalism perceives society as a system made up of differentiated and interrelated structures (Trevino, 2001). Parsons's analysis of systems starts with distinguishing structural and functional components. In a system, a structure represents the elements of the system's pattern with discrete characteristics and that are considered *constants over certain ranges of variation* in the relation between the system and its external situation (Parsons, 1961, p. 422).

Functions diverge from structural components through their *dynamic* direction (Parsons, 1961, p. 422). Functions refer to features that guide the systematically ordered modes of adjustment in case of changing relations between the existing *set of institutionally established patterned structures* and the priorities of the *enviroing system* (Parsons, 1961, p. 422). Functional categories are adjustments to changing relations between institutionalised pattern and resource conditions. From this point of view, the functional task is to analyse mechanisms and processes that make orderly responses to environmental conditions (Parsons, 1961, p. 422).

Parsons's analysis assumes a holistic view of a social system as an integrated system comprising discrete structures that perform specialised tasks based on the functions they are assigned. A social system as a conceptual scheme is composed of structural components with ascribed functions. A social system maintains social order against internal structural change and a changing environment. Social order is the result of the maintenance of structural patterns as institutionalised normative culture. Value orientation is placed in the pinnacle of the hierarchy of social structure which is organised into norms. Norms provide information for the role-playing of individuals within the collectivity that eventually supply informational control over motivation and individuals' decision making in performing actions.

### ***Understanding Functional and Structural Components of the Social System***

The most strategic point for explaining the basic to understand the social system is to explain the set of the category of functions, the link between the structural and the dynamic aspects of the system. When a group of people interact for certain goals, it creates a social space. As such, the social space considers a bounded social interaction that is relational. Social space is designated by four dynamic functions where interactions happen to attain specific goals or mutual feeling to sustaining solidarity (Fox et al., 2005). The social space indicates the space of communication where different social actors associate to achieve certain goals as responses to the enduring needs of the participating groups as social systems. According to Parsons, four categories of functions demarcate the dimensions of social space within which interaction occurs.

***Pattern Maintenance***:-Pattern maintenance includes the processes of ensuring long term attachment to the basic principles of action and consequently including shared values, that distinguish the system from other systems (Fox, Lidz, & Bershady, 2005). Pattern maintenance reflects the imperative maintenance of the stability of the structural components of the social system.

According to Parsons (1961), there are two key aspects in the hierarchy for pattern maintenance: its normative pattern, and its state of institutionalisation. The normative pattern's structural component is the values. Values are subject to change whether they empirically tend to stability or not. Pattern maintenance is concerned with the stability of the social order, and thus, articulate institutionalised values with the belief system, namely, religious belief, ideology and likewise through processes and mechanisms (Parsons, 1961). The second concerns the mechanisms of socialisation of the individual. The process by which individuals

internalise values of the society refers to the socialisation of the individual; the actors socialise once they are learning in ensuring the basic principles of action (Parsons, 1961).

In the cases, the pattern maintenance functions were mostly served by the fiduciary system, for example, schools, families and households. They are organised around the transmission, maintenance and development of the society's enduring values through the socialisation process, for example 'We process' in Schloss Tempelhof.

**Integration:-** Integration encompasses mutual adjustment among the social units comprising individual to encourage long term interdependence, loyalty and attachment (Fox et al., 2005). Integration involves processes implies the differentiation and stratification of the system into relatively independent units, for the contribution to the functioning of the system. Moreover, in the differentiated society, integration involves institutionalisation of the legal norms and the agencies associated with the management for setting priorities. The norms govern the allocation of rights and obligations. Integration also facilitates internal adjustments compatible with the stability of the value or its orderly change or its adaptation to the demands of the external situation.

In the cases, the societal community serves the integration of society, for example working groups, that share elements of lifestyle and maintain enduring ties of solidarity for the pattern of social organisation and are responsible to specific actions. They are organised around shared frameworks of norms, and custom that delimit the scope of action and influence of particular groups, establishing the bases of trust as well as social control.

**Goal Attainment:-** Goal attainment encompasses the processes of organising activities of social units into coordinated efforts to achieve the desired change in a shared and collective relationship to the environment (Fox et al., 2005). The goal refers to maintaining equilibrium between the internal and envioning system (Parsons, 1961). In a complex system, Parsons (1961) points that several goals must be arranged in some scale, sufficiently flexible to allow for variations in the situation, depending upon the value to protect the integrity of the system. Thus, unlike pattern maintenance, the goals are situation-specific. The arrangement is a social ordering of the goals to maintain the balance between integration as a system and flexible adjustment to changing resource (Parsons, 1961). As such, goal attainment concerns with the contributions from different social actors and varies according to environmental conditions, unlike pattern maintenance, where actors are committed to the values of the society.

In the cases, the polity coordinates the attainment of collective goals. The institutions include different mainstream institutional bodies, for example, government bodies at all. They are organised around keeping the resource conditions stable and influence different goal settings in case of changes. It differs from the integration from the mode of operation and origin. The policy works at an external level in a physical environment, while integration functions internally.

**Adaptation:-** Adaptation encompasses the processes of gaining generalised control over scarce resource conditions in the environment or situation of the acting unit (Fox et al., 2005). The existing facilities or resources are evaluated based on the goals. For a single goal, the evaluation narrows down to their relevance for attaining a single goal. For a plurality of goals, the evaluation is broadened to the alternative uses of the same scarce facilities within the system of goals, resulting in the sacrifice of certain goals (Parsons, 1961). Adaptation also allows the generation of new resources, or allocation of available resources more efficiently among individuals or collective actors to secure new capabilities for the system (Fox et al., 2005). The most important kinds of facilities or resources are control of physical objects, access to the services of human agents, and certain cultural elements (Parsons, 1961).

The cases present institutions related to resource use coordinate the adaptive function, for example, cooperatives, private limited and foundations. They encompass the development and allocation of basic resources for use by individual and collective units of a society.

According to Parsons (1961), there are two points of references to understand the structure of a social system in response to the functional exigencies. The first relates to an individual's participation in social interaction- how individuals orient themselves. The second relates to pattern maintenance of social and cultural systems- how structural components organise in their organisation for pattern value maintenance within the system.

Every action is particularly meaningful based on the existing sets of normative culture in a social system. The culture, which is shared by individuals over and above their differentiated roles, has two important components. The first is the shared normative components, which Parsons (1961, p. 430) calls *value*. The second is the role-expectations- differentiated by the role and, therefore, defines the rights and obligations to one role, but not to other, which Parsons (1961, p. 430) calls *norm*.

In SST, analytically, actions are performative- actions are either regulated or oriented or both by certain shared *values* (Parsons, 1961, p. 430). Parsons (1961, p. 430) *defines* a

role as '*structured, i.e. normatively regulated, the participation of a person in concrete process of social interaction with specified, concrete role partners*'. The norms differentiate the roles to the actors; the sharing of values become an essential condition for the integration of the system. Furthermore, the system of interactions involving a plurality of role performers collectively, and are normatively regulated under common values and norms sanctioned, is a *collectivity*, and performing within a *collectivity* defines the categories of *membership* (Parsons, 1961, p. 430). The individuals with a definite role have obligations of performance in that concrete interaction, and correlatively the right to perform that way (Parsons, 1961, p. 430).

As such, the study analysed four key components of the cases as social actions: values, norms, collectivity and roles for any social actions.

#### **4.4.4 Analysing Society from the Social System Theory**

Society is abstract and is a network of social relationships whose boundary may change depending on social relationships. For Parsons, a society is a coherent whole whose coherence stems from the social integration that is generated by the network of common value orientations shared by its members as they enact patterned role expectations (Trevino, 2001, p. xxiv).

A community is localised, concrete and has common interests with a sense of 'we-feeling'. As such, the communities shared a common lifestyle. For Parsons, a community is a collectivity of individuals in which the physical task is bound to a spatial location in a physical environment (Parsons, 1961, p. 433). Within the territory, a community has a residential location with social structure around, functional performance concerning occupation, jurisdictional application of normative order, and the physical exigencies of communication and movements of persons and commodities (Parsons, 1961, p. 433).

All the cases referred to are bound to a specific location and have certain populations. However, all the cases do not reflect the notions of communities. Schloss Templehof and Hurdal EV are intentional communities with shared values of intergenerational living and natural living, respectively. Bandipur Bazar and Jhong are traditional communities of specific ethnic groups of Newars and Mustangis. All these cases have a certain lifestyle that reflects their identities and also differentiate it from each other and their neighbouring settlements. However, the study cannot limit the study to a certain lifestyle as designated by the term communities. For example, in Schloss Tempelhof's case, the interactions are with Artaban. This regional network does not

share the same locational attribute but shares the concept of solidarity for health and emergency aid.

Similarly, Hurdal EV interacts with other regional actors like Banks, that share the concept of eco-sensitive housings. Bandipur Bazar also interacts with different working groups under BECTP, that share the concept of heritage conservation. Even Jhong shares the relationship with different conservations bodies under ACAP, which are not part of the community.

As such, the notion of the community would limit the study's scope in understanding the social relationships; yet there is a difference between community and society. Parsons has used the term societal community to overcome the difference between society and community. According to this perspective, societal community mould the society's pattern of integration, in which different groups that share elements of 'lifestyle' and other groups that maintain enduring ties of solidarity.

This aspect becomes crucial in the study, especially when the study has focused on the collaboration between EVs as communities and mainstream society. Mainstream society considers the broader networks of relationships. As such, it becomes crucial for the study to explore the integrations point between the mainstream society and EVs, what Parsons calls the societal community.

In the following paragraphs, the study covers the broader aspects of EV s and mainstream society together.

Parsons (1961) presents an ideal type of complex social system that pretends to define and distinguish broad structural categories. According to Trevino (2001, p. xxix), Parsons's analysis of human societies, the conceptual model of social systems focuses on 1) the functional requisites that a social system must satisfy to ensure its survival, 2) the interconnecting structures (institutions) that satisfy those needs, and 3) the way that all institutions reorganise to bring the social system back to its ideal state of harmony or equilibrium.

The study interpreted the Parsons' analysis of human societies in the cases to understand the EV's sustainability. The first point is how different cases have developed different organisations to perform various functions for their survival within the broader mainstream context. The second one being how the cases have developed different structures within the endogenous governance structures that help to organises those organisations. The third being how different institutions within the cases reorganise once those goals are achieved and bring back the social order.

The state of equilibrium and social order is important for this study, especially when dealing with the collaboration of EV with the mainstream society. Parsons' SST does not address the notion that with the major influence of mainstream institutions, there comes the coercion and power or the mainstream society's threat that stabilises the social order. The mainstream institutions, in the form of state authorities, exercise power in case of conflicting goals and keep people in binding in quality of decisions. It represents the top-down approach of the planning process, for example, the ACAP in Jhong's case, and building permit of a shelter home in Hurdal EV's case.

However, Parsons perceive the mainstream institutions serve shared interests of the public and benefit an entire citizenry and is not normative. For Parsons, the social order and stability of social life lie with society's common value system that obligates people to constrain their behaviour, to cooperate voluntarily. As such, the study analysed mainstream involvement not as a determiner, but as a trigger of any actions. As such, the study did not touch the top-down planning process of mainstream institutions and limited mainstream influences to the triggering roles.

Moreover, the study also emphasises the value commitments of the actors within cases to carry out significant projects cooperatively. However, for the projects of external origin from mainstream society, the coordination of the cooperative relations at multiple levels of mainstream institutions remains a topic to study, for example, ACAP in Jhong's case. Parsons's SST limits that the actors' commitments to perform, for example during the project, at the time to involvement, may leave open to future decisions just what works the actor will do, in cooperation with whom, through what procedures, and when and where. The continuation of the cooperation reflects the shared values of the actors and the mainstream—for example, community-based forest management of ACAP in Jhong's case.

The study employs Parsons's SST to unify the structural and dynamic analysis of EV's sustainability- how sustainability is embedded in the different social structures based interactions for certain functions. The study retained the methodical overview of how different parts fit into the societal value, concerning EV's sustainability at macrosocial analysis.

The study employs SST mainly for identification and development of values to understand the society's integration and adaptation functions in the case studies. Based on Parsons (1989), values in a society can be identified based on the following four characteristics:



Values are the normative components of culture. Values are grounded in and justified by existential ideas in symbols. From an actor's viewpoint in a social system, values are then the aspects of the expectations in the normative sense, not predictive.

Values are not necessarily every normative component of the total cultural complex. They are the principles from which fewer general norms and expectations can be derived. Values stand on the generality level, which is independent of any specific situational objects- structures.

Values have motivational characteristics that influence different levels of commitment or compulsion. An actor inherits the compulsion that reflects institutionalisation of those values. The motivational influence may be the internalisations of social norms as a part of the social system.

Values, by definition, are shared or common between the units of the system, either individual personalities in *roles* or *collectivities* at various levels of structure of the social system. Values at higher integration level become common or shared. In a situation, values become relevant to the lower order that has specifications of the order of actors. For a lower order system, for example, adaptation, values can be derived from norms of a higher-order system, for example, integration, but not directly from the overall value. Furthermore, an actor at an individual level participates in a different system of social interactions through different roles- a criterion for the membership of the society.

The discussion above reckons that the primary point of reference to analyse any social actions in a social system is finding value for the given social units of a social system. Based on the characteristics mentioned above of values, Parsons (1989) provides the following theoretical grounds to differentiate values in society as a social system:

A social system identifies or presumes the existence and importance of a unified value having the characteristics mentioned above at a general level. It is then institutionalised in a higher pluralistic society.

The values of society (EVs and region together) tends to remain stable over time. There is a clear distinction between changes in the society: one that constitutes or involves changes in its fundamental value and another that does not. Any actions in response to the changes reflect an actor's tendency to keep the value intact against the changes. For example, the cases have maintained their key shared values in response to mainstream institutional frameworks (See chapter 5). The mainstream institutions and the related policies have triggered the value changes. There were instances in the cases of different intermediary initiatives in response to

the changes, and at the same time, maintain the identity. For example, Jhong's shared value of user ownership continued despite different policies (See Section 5.4).

The case study focuses on understanding EVs and its relationship (in each case study) as a *collectivity* for a given action-situation. It means that *collectivity*, at the general level, constitutes the groups of actors or individuals with definite roles in performing certain action in each situation. The collectivity comprises of the EVs actors and other groups that maintain ties for integration to specific goals, for example, the technical facilitators. In a *collectivity*, the individuals perform the physical task in the physical environment, based on the roles derived from the values from the higher level, for example, shared frameworks of integration. The frameworks order different objectives and delimit the scope of performing actions. The cases in the study have different working groups as organisations within the community that constitutes different actors. The actors perform according to the norms to achieve specific goals; however, ensuring the stability of their values—for example, different working groups within the cases.

The overall discussion of this PhD emphasises cultural premises in understanding social interactions in a social system that comprises both EVs and regional actors. Values associated with the individual role types for the given situation in a *collectivity* are the meeting point/grounds of the shared values and individual values. The study presented different working groups as the collectivity of diverse values: both shared values and individual values. Each working organisations has certain values under which they perform, for example, goal-oriented values. Within the organisation in the cases, the individuals derived their roles from their values. Both the groups' values and individual values are of cultural premises' derivatives, that define the actors' lifestyle within the community. Both values do not need to converge. As such, the shared values become the key determinant for allocating the roles- how the individual values and collectivity values are ordered so that the overall shared values are maintained. For example, in Bandipur Bazar case, the individual values of livelihood opportunities were met with the heritage values in the BECTP- an intermediary project and the associated organisations within the project.

In the case study analysis, the study distinguishes between two categories and relate them to the categories of resource management, community organisation, and knowledge sharing (see chapter 5):

a) **Internal (community institutions):**-These are the internal and analytical structural components. They are the decisive factors for how a *collectivity* organises in terms of concrete individuals. The primary focus of this group is communal value maintenance. The study presented different kinds of structures within the endogenous governance structure in the cases, that mostly determines the way different community organisations form for different goals.

b) **External (economy and polity institutions):** - These are the external and physical structural components. They are the condition factors for how individuals perform a physical task in the physical environment. Physical tasks are visible in the physical outcome as the result of decisions made by real actors on internal values and norms. Tasks are also for solving problems in response to the changes in relations and the resource conditions in the environment, for example, mainstream society. The study presented different policies from the mainstream institutional framework that triggered different actions in response.

The study presented that in the execution of any social actions, actors have dilemmas: on the one hand, individuals in a *collectivity* tend to focus on maintaining the value pattern that maintains the identity of EVs, on the other hand, tends to perform different physical tasks to achieve the goal as the result of a change in mainstream institution's induced resource change. As such, the study highlights the common ground at the societal integration level by exploring actions as per the normative values and goals as per the external environment. The actions have dual functions- maintain the value despite the changes in resource conditions internally, and solve the problem through new goals due to change in resource conditions.

#### **4.4.5 Some critical aspects of SST**

The discussion above, however, illustrates two important issues that Social System Theory is silent about: the social inclusion, and the value change. Referring to the social inclusion, SST is silent on what happens when any individuals without the shared values and their subsequent roles are integrated into the social system. Individuals who do not possess shared values would remain marginalised both in practices as well as in the research. For example, the role marginalised group in Jhong was not affluent in the cases because they do not have the roles in the endogenous governance system. As such, the marginalised groups have notions of external actors but a part of the societal community, but not a part of the community.

Analytically, referring to the value change, the concept perceives value as stable and, thus, maintains the pattern of social organisation. The concept is silent if the value can be supplemented or changed and its impact on the social organisation if it changes. The value

changes imply the disintegration of society. For example, Hurdal EV's value has changed due to resource constraints.

The issues above reflect the limitations of SST as a concept for planning procedures (see, for example, Owens (2010)). Furthermore, SST does not address issues like feminism and marginalisation. Nevertheless, even if SST provides an explanation and a methodological tool not only to explore the issues but to understand the relationship between communities and organisations in terms of values. The study emphasises on the understanding process of actions' execution at a community level and goals' achievement in a given situation. They together, on the one hand, maintain its values and on the other hand, solve the problems raised due to changes in the resource conditions. As such, the study aims to find the conceptual methodology that can have implications in conceptualising successful actions and policies concerning EV's sustainability at the community and regional level. The study uses SST for its methodological implications to structure the explanatory and exploratory interpretations. Methodologically, SST facilitated the researcher in the right position, ontologically and epistemologically. For example, in Jhong's case, one of the issues was social inclusion of marginalised group. As an objectivist, social inclusion is a must. However, from the local actors' subjectivist point of view, it may not be appropriate because they need to share the scarce resource (See 5.4).

Referring to SST's first issue on social issues like feminism and social inclusion, the PhD research highlights such issues and scenarios methodologically. For example, for the non-implementation of the actions, SST indicates the possibility that certain shared values or personality values of a community may have been marginalised or not included. For example, SST highlighted the scenario of local people's marginalisation in the government's forest nationalisation policy, even if they have roles in actions execution (see section 5.4, Jhong). With SST, the study also explains the inclusion of women groups in resource management in the society that is once considered feudal society. SST explains that such issues are structural that changes to maintain communal identities. For example, the endogenous governance structure changes and include women to maintain the user ownership of natural resources in Jhong's case due to the influence of mainstream institutions, like ACAP and socio-economic changes like migration- a resource change condition. As such, the study presented EV's sustainability for the structural changes concept rather than values in itself. The study analysed the EV's sustainability, for example, in norms and roles of actors that determine the selection of means for goals.

For the second issue, SST as the methodology takes society as a functioning social system only if the value is maintained. Inability to do so implies that society is disintegrating. As such, a disintegrating society refers to a non-functional social system. All the cases presented here are the representative societies that have their values-based identities within the mainstream society context. The study presented the cases of how and why different organisations in a community are sustaining through different social interactions and consequent actions- a concept of functioning society. Methodologically, SST highlights if a society is sustaining or not and explains the instability of society- why certain organisations are not working. The scenario presentation allows the implementation of certain actions that shall address the issues raised due to resource changes and non-functioning of different organisations. As such, the EV's sustainability becomes a part of social interactions in selecting means rather than the goals in itself.

The concept of social order is a prime in SST, and thus become crucial in the study to understand how sustainability is perceived in different forms and contents to determine that social order. It seems that Parsons, while reflecting social order, ignores power and coercion from the external environment, for example, state government. However, SST argues that social ordering does not only depend on power or coercion but also a normative order. The cases of the study also highlight the statement. The communities are interacting with surrounding externally and responding to the envioning conditions: state-level policies, Global agendas, and donors' aspirations. Some of the structural changes within the endogenous governance system are due to the mainstream institutional frameworks, for example, Hurdal EV's concept of shelter homes, and Jhong's women group. However, the study analysed each case's value-based identities as independent from mainstream institutional frameworks.

SST assumes that end has humanistic value. However, as a practitioner on the ground, the only humanistic value from diverse actors is not enough to find solutions. Integrating humanistic values and ends to the mainstream is not possible unless they have the cross-cutting themes or interpretations of normative ordering that is comprehensible to the mainstream frameworks, for example, policies. As such, the study seeks to find common ground where the objectivity of mainstream policies and the subjectivity of human actions intersect. The study identified regulation for the selection of means to achieve ends as the cross-cutting factor, as also highlighted by SST. It means that irrespective of the diverse interpretations of the ends, actors have their objectivity in selecting those means (or actions to achieve the ends).

Similarly, policymakers require actors' objectivity in the means to integrate into mainstream development. The study identified different normative components on why certain measures were selected in the actions, so that such regulatory mechanisms might get integrated into mainstream institutional frameworks, for example, policies. The process refers to finding the intermediary projects, that defines different normative orders for given actions in selecting means, but not in selecting goals or ends.

In the following chapter, the PhD research adopts SST to supplement the methodological procedure to explore, explain, and reflect on the information related to actions and corresponding interactions at different cases. The aim is to analyse all the cases as a social system and find common ground for different social interactions through EV themes across the cases. Here EV themes are presented as the analytical categories that thematise different patterns of interactions while selecting different measures. The study applies the EV themes as the cross-cutting themes for selection of means that transcend across actors' values and mainstream development objectives.

## CHAPTER 5-CASE STUDY

This chapter presents four different case studies: Schloss Tempelhof (ST), Bandipur, Hurdal EV, and Jhong. Each case has intrinsic characteristics and represents different aspects of ecovillages (EVs). Schloss Tempelhof is an intentional community but was not started as an Ecovillage. Bandipur is a traditional intentional community that uses sustainability as an instrumental factor for revitalisations. Hurdal is a representational Ecovillage. Jhong is a traditional community that has sustained in the resource-scarce area since centuries.

For each case study, there are three levels of analysis:

In the first level, each case is explored as a unique case. The chapter presents vital historical points in the form of narratives with a focus on key social interactions, both within the community and with the surrounding. Each phase is reflected based on the Social System Theory.

In the second level, each case is explained as a case of local-level sustainability. The PhD research presents the categorisation of social interactions based on the patterns in three EV themes: Resource Management (RM), Community Organisation (CO), and Knowledge Sharing (KS). The social interactions are perceived and analysed in internal structure- how individuals interact within the community; and in external structure- how a community interacts with surroundings as a social system.

In the third level, each case presents the inferences on different measures for the cultural value maintenance to keep the communities intact and also transfers knowledge across generations; and on measures of difference for the regional cooperation maintenance between the communities and surroundings-government, external agencies and surrounding village- as a part of mainstream development.

Because of the three levels of analyses, the same action may appear in three different analyses. For example, the concept of organic farming may appear as the key point for exploring the case, or as one of the activities for resource management internally and externally, and as one of the measures for regional cooperation in resource sharing, agriculture. The chapter ends with a summary of the four cases as a comparative analysis based on the EV themes, cultural value maintenance and regional cooperation.

## 5.1 Schloss Tempelhof, Stuttgart, Germany

This section presents Schloss Tempelhof (ST) as the representative Ecovillage (EV). The section attempts to explore ST from the EV concept. It analyses different actions and practices that are perceived as sustainable. The section highlights some of the key actions that contemporary communities can follow or replicate for becoming sustainable communities.



Figure 3 Bird's Eye View of Schloss Tempelhof. Source: - <http://www.lebendige-landwirtschaft.de/>

### 5.1.1 Introduction

Schloss Tempelhof (ST) is an intentional community like most other EV communities but was never intended to be an ecovillage. Schloss in the German language means castle. It became a member of the Global Ecovillage Network (GEN) in 2013 after GEN broadened its EV criteria. The administrative boundary of ST is the Kressberg region, located in the Jagstregion, a rural area in Southern



Figure 4. Administrative location of Schloss Tempelhof



Germany, state of Baden-Wurttemberg. ST is a self-organised village of 150 inhabitants (Schuster, 2018) with 32 ha land (4 ha of buildings, 27 ha of agrarian land and 1 ha of forest) (Kunze & Avelino, 2015; Stang, 2018). It is not only a residential village, but it also employs about half of its members in part-time positions on need-based salaries. Need-based salaries are the payment received by an employee from an employer based on how much the employee needs in return of the work.



Figure 5 Map showing location of Schloss Tempelhof in Kressberg Region, Germany

In 2007, before the purchase of the area, a group started connecting with other EV communities to learn from their EV experiences. From their visits in other ecovillages, the group adopted some tools like the ‘Forum’ (of Zentrum für Experimentelle Gesellschafts Gestaltung-ZEGG),

the building guidelines of Sieben Linden, and smaller and qualitative aspects of their culture and practices(Kunze, 2015).

Many members of ST do not perceive it as a classical ecovillage, e.g. Sieben Linden, EV at Ithaca, Earthaven EV. ST focuses on social and socio-economic aspects, rather than on spiritual and environmental aspects. It intends to develop a cooperative and more communal way of intergenerational living (people with different age groups).

### **5.1.2 Method**

The methods applied during the case study were three-staged. In the first stage, various literature from secondary resources was collected and reviewed. Many of the literature were reports (Kunze, 2015; Kunze & Avelino, 2015), newsletters(“Frequently asked question (FAQ),” 2013), and interview documents (Huber & Schuster, 2015a, 2015b; Huber & Stang, 2015; Jacobson & Stang, 2015; Stang & Huber, 2015; Stang & Schuster, 2013) conducted by Iris Kunze in 2013 and 2015. The reports and interviews were published as narratives. The narrative was used as a method for a linear ordering of facts, actions, and events of the information collected. The researcher presented the narrative as a passive observer in temporal order by linking events in causality- cause and effects.

In the second stage, the researcher and a translator visited ST from January 31 to February 6, 2018. A guided tour of ST was booked for February 4, 2018. On February 1, the researcher and the translator visited ST and requested appointments for interviews. In the evening, they interviewed Agnus Schuster and Michael Stang for February 3. The interviews were open-ended and in the form of narratives that concluded with their future steps and aspirations.

In the third stage, the researcher used narrative logic as a methodological tool to review, analyse, and draw conclusions in relation to roles, causality, and order. The researcher and the translator interviewed the same people to evaluate and supplement the results from Kunze and Avelino (2015). The process helped to verify the narratives. The confirmation process consisted of a comparison of narratives, with their interviews. Subsequently, the narratives were described and interpreted through a logical process, to find out temporal order of events and then reflect on them in terms of causality.

### 5.1.3 Findings and Analysis- Historical Development of Schloss Tempelhof

Development of Schloss Tempelhof (ST) as a community is summarised into four stages: Formative Stage (2007-2010), Development Stage (2010-2013), Decision-making process Stage (2013-2014), and Mainstream Stage (2014- till now).

#### a) Formative Stage (2007-2010)

In 2007, 20 entrepreneurs and activists from civil society movements like Artabana, credit unions, and two former members of ecovillage Sieben Linden started the initiative during an economic crisis in Munich (Kunze & Avelino, 2015). The main idea was an intergenerational living, a commonwealth economy (solidarity economy), and raising financial consciousness (Kunze & Avelino, 2015). It refers to socio-economic consciousness through a cooperative and communal way of living. The economic issues (profit, loss, and transactions) are handled, communicated, and decided as a social organisation, unlike in individual-economic consciousness; in which economic issues are limited to individuals.

In summer 2007, the group was highly interested in buying land at Ammerlake site, a land near Munich. However, due to the time-consuming processes considerations in a large group, another investor bought the land for a higher price (Kunze & Avelino, 2015). That failure caused a serious existential crisis in the initiative. As such, more than 60% of the members to leave the initiative. It also led to serious concern on the re-orientation towards community values with an internal community-building process (Kunze & Avelino, 2015).

The initiative realised that there were mainly two reasons for the failure. The first failure was the competition with external actors, such as investors (Huber & Schuster, 2015a). The land, like any other resources, is a commodity. The initiative group had to go into negotiations with a strong financial backup to purchase or own land. The initiative group had to be economically strong to compete and negotiate. Practically, they had to leave expensive areas around Munich, focussing on developing a community from scratch rather than living close to the city.

The second failure of the community was related to individuals' interests and organisation structure. The land was not the primary goal, but community living was. However, the organisation governance structure was not according to the core value of community living because of individuals' diverse interests for the future of the community. The failure of land purchase made the group realise its weakness and was conscious enough of the communal values, financial investment, and responsibility. The failure led to the phase of self-reflection

focussing more on inner group process development through regular meetings on community building, visions, and values on how to organise the structure of the community.

### **Reflection**

The failure in the initial stage of the founding is an example of an initial reality check for settlement on the establishment, management, and continuation. Many people perceive the cooperative and communal way of living as the ultimate goal. However, they are often hinged to ease the socio-economic needs, as in this case.

The formation of the initiative group has expressed their desire to have a solidarity economy. The latent value of solidarity economy was to create a settlement with the value of intergenerational living. The children and elderly could get access and opportunity to resources. For the initiative group, one of the ways to maintain that value was to ease those economic needs of the vulnerable stakeholders by sharing and equity-based allocation of some resources. Furthermore, the initiative group also anticipated the undesirable conditions, especially the economic crisis. The crisis might lead to undesirable competition for access to the resources and force the breakdown of the community. An example can be the case of Hurdal EV (Norway) where the community has to sell their land to the developer because of their financial crisis (see section 5.3). The initiative group maintained the pattern of resource utilisation (both material and natural resources). Being resourceful refers to be able to adapt to the external changing conditions by allocating enough resources accordingly. It also links to the condition of open social boundaries of ST to the regional context. ST cannot avoid the influence of broader political and economic arena of the external environment, for example, the competition and negotiation in getting access to land.

In ST's establishment, the community-building process involved a rigorous internal organisational structure that comprised members understanding and internalising shared values and principles. The internal organisational structure in the initiative group required members to address and maintain the value of intergenerational equity while functioning in any goal-specific community organisations. In decision-making situations for the common goal, the members confronted with their priorities that were often related to their resource demands and needs. Besides, the community faced tough competition for purchasing resources (for example, land) with other communities or individuals (for example, investors).

In summary, there was much competition and negotiation among the members in gaining access to the resources and bringing them under shared value. Even after the establishment,

resource-needs (after a change in settings) can come in various forms: financial (like medical treatment, importing other food, equipment), or infrastructures (like water, housings, land, and food). For the ecovillage establishment, the dilemma was whether community building is needed for socio-economic stability or socio-economic stability is the foundation for community building. Even though they are different approaches, there is a reciprocity between them, especially when considering space (bioregion) and time (dynamic development) perspectives. The issues in the establishment of the founding group highlights that a community's value disintegrates when its resources deteriorate and vice versa. As such, the founding group pioneered and promoted the community building process in the establishment stage by framing the governance structure of economic equity based on collective ownership.

#### b) Development Stage (2010-2013)

In 2010, the group was successful in purchasing ST after embracing two steps: discard the wish to live close to Munich; emphasise the values of building community with their expertise. The initiative group found ST through internet by surfing 'Dorf kaufen' (buy a village). During the purchase of ST, the group designed a so-called 'option contract' with the owner that gave pre-emption right to buy ST for six months for a fixed price. The period was used as a time for the internal decision-making process. The site was purchased for 1.5 million Euros plus 4,600 euros for every new member from the 67th person on that joins till 2017.

The Tempelhof site consisted of already existing infrastructures and facilities (a large-professional kitchen, a sports hall, two apartment buildings, and more historical buildings to live). The castle was used as a city hall of Kressberg region. The other building was children's home and later used by a church for disable children. There was confusion and dilemma for some members because it was far from Munich- their working place. As such, only those stayed who made 'living in community' as the priority (Huber & Schuster, 2015a). The challenge for the community was not only to buy the estate with building and place to live in but also to develop employment opportunities (Huber & Schuster, 2015a). The community spent six months on renovating the old property into habitable residences until 2011 with 20 workers and 20 core group members.

In 2011, the cooperative of the community members with 20 core members was established with its governance structure, which owned the property (land and building). Thirty newcomers also moved including the core members moved in. The core members carried financial

responsibility and risk. The newcomers had a year of trial with the option of withdrawing their financial contribution 25,000 euro from the cooperative.

ST also initiated building 'Mobiles Wohnen' - mobile living in trailer homes for young families to reside and move in. Within two years, the population grew into 120 residents (80 members of the cooperative plus 40 children) (Kunze & Avelino, 2015). There were more people interested in moving in with 60% being the age of 60+ because of limited residential units (Stang & Huber, 2015). In November 2013, the community decided to reduce the number of newcomers to 10 per year and reject people of age 50+ (Stang & Huber, 2015). ST group also started a monthly info cafe and guided tours for many visitors (Huber & Schuster, 2015a).



Figure 6. The existing residential blocks and community hall after renovation

ST built strong agricultural networking through cooperative based agriculture farming and permaculture methods. Most ST members were not indigenous to the area. Few of the members were networking not just for business contacts but also for private friendship with people in the neighbouring villages (Kunze & Avelino, 2015; Stang, 2018). Furthermore, ST also started an alternative education system based on motivation. The school application was initially rejected in 2011 and 2012 but eventually got approval in 2013. ST foundation provided the school building.

The founding group chose the old name 'Tempelhof' to indicate their commitment and identification with this place and integrated with the regional context (Kunze & Avelino, 2015). The new settlers also maintained some of the old initiatives along with the name, like cider

orchards. The founding group also chose traditional May 1 event of Tempelhof (which is also known in the region) as the day to welcome 1300 guests.

ST was gaining popularity during this period with media publications and interest; the notable ones being documentaries on TV by famous Anke Engelke, magazines like *Suddeutsche*, and other notable Eco magazines (Kunze & Avelino, 2015). The community was also open for various initiatives and charity programmes that brought not only investments but also popularity. For example, the Charity program of German Unit of gardeners (BASEG) restored and beautified the outland and areas, and paths between the buildings for a special price.

Because of solidarity support for food and housing for children, ST attracted more families with children to join over the years. The school became popular within the region and students from surrounding settlements as well enrolled. The school started linking with other free schools in the region. Furthermore, more people were coming either temporarily as tourists and visitors or permanently to live in the region due to ST, and induced economic growth and regional development (Stang, 2018).

### Reflection

This phase reflects on the integration edifices of the community, social platform, resource management, ways to socialise, and handing over the values. Integration in ST comprises bringing different individuals to work and organise under a common value of intergenerational living. There were norms and activities in the community for assuring that those old persons were not excluded to resources access. Furthermore, ST confronted the challenge to attract new members and simultaneously retain the existing members. ST believed that by maintaining the communal values and equity-based resource allocation, everybody would feel like a part of the community, and not marginalised.

Apart from investing in various activities and innovation, in general, a community foundation also saves and harvests their financial and other resources through initiatives like info cafe, seminar house, mobile living, and village school. Such initiatives have created the scenario of socio-economic consciousness in ST. In ST, the sense of stability and security was secured from a community foundation that could adapt to changing conditions, setting the goals, and eventually selecting different actions to achieve those goals. ST has confronted the challenge of selecting appropriate means by setting up formal structures with working groups, and need-based income for members working for the community for personal need. Such structures highlight ST's evolutionary characteristics.

ST's organisation structure presents a societal platform where diverse interests and actions are integrated into common norms and values and are mediated through social interactions. Such organisational structures are one of the key achievements of ST for the steady growth of the community. ST's integrative societal platform was diverse age wise, gender-wise and with different traditions and skills, yet, complementary to each other in an organisation for the common goals. However, the community had given priority to young newcomers because of increasing interests from older people in the beginning.

ST also facilitated opportunities for growth and community solidarity through projects and employments in a community (like farming and building houses). In addition to the concept of solidarity economy, ST cooperation facilitated investments and infrastructures for innovations and personal growth, but only by relating to social interaction and cooperation for communal value, for example, intergenerational living.

In an interview with Michael Stang, he told an incident related monopoly gameplay- '*As a rule, in monopoly, one who has collected maximum money, will win while the loser gets bankrupt. However, in school, the children also give money to losing ones so that they do not lose their game members. It highlights a learning social environment where winning and growth are linked to social interaction*'.

ST also built networks as a social space for growth and recognition at a broader level to strengthen their identity across different scales. Networks come through various areas like education sector, health sector, political sector, and agricultural networks.

ST facilitated a medium and culture of knowledge, and value dissemination and exchange through different initiatives, for example, hosting or participating in events involving multiple like-minded networks, organising seminars on community buildings, entrepreneurship, spirituality, and technological innovations. Value dissemination and knowledge sharing are also possible in various forms of cultural events and festivals that connect to local festivals and events. For example, an event was announced for March 8 and 9, 2018 of the arrival of Dr Ha Vinh Tho, director of the Bruttonational Happiness Institute in Bhutan. He will deliver a public lecture on 'Inner and Outer conditions of happiness. (<https://www.schloss-tempelhof.de/service/newsletter/news-winter-2018/>)

### c) Formalisation of Community Organisation (2013-2014)

During the fall of 2013, the founding members stepped back from managing the board by self-criticising the board members' power concentration (Kunze & Avelino, 2015). According to



Kunze and Avelino (2015), the reason was not the conflict. However, the founders instead wanted to support the community to grow into an 'all leader' principle- the idea of a democratic decision-making process. The founders believed that making a democratic decision-making process could bring proper allocation of resources with higher chances of maintaining the communal value. The management went to a transition period for two months, during which nobody communicated, and no (suitable) members stepped forward (Kunze & Avelino, 2015).

As such, coordinating circle of the governance structure was transformed into coordinating plenary where everyone could participate actively in preparing the decisions of the village plenary. People who live in ST but have not become members of the cooperative (yet) are not eligible to participate. The new governance structure has the following circles of interactions (Kunze & Avelino, 2015; Stang, 2018):

**Village Plenary:**-This is the highest level where decisions are made with the participation of every community individuals (every six weeks).

**Coordination Circle:** - This level prepares and discusses decisions for the village plenary, where everyone can come, contribute, and hand in proposals (every two weeks).

**Finance Circle:**-It consists of representatives from every working group and finance managers (every four weeks).

**Five Working Group Circles:** - This is the lowest level consisting of one external supervisor from the community (about every month, individual plans). The circles are agriculture and kitchen; maintenance; education and culture; settlement; and publicity.

In 2014, a new managerial board (of young people) was elected. The governance structures were changed. Furthermore, several decisions were delegated or decentralised to different working groups and projects for efficient decisions without delays (Kunze & Avelino, 2015).

The decision-making process has six modes of voting: unlimited agreement, light concerns, neutral, strong concerns, stand aside, and veto. All the members from the cooperative must reach consensus. The co-workers (who are not the members of the cooperative) can co-decide and put opinion in the working circles they are committed to. Furthermore, there were few informal groups and meeting platforms that served ST's social processes and conflict resolution. Some of the platforms were a social forum (every Wednesday evening), 'WE-process' (several weekends a year with a recommendation to attend at least two a year), men's and women's circles, morning circle as an information platform (every morning in the breakfast

room at 8 A.M.), reference groups, biannual retreats, and several sub-initiatives offered by single members like Forschungshütte (research hut) (Kunze & Avelino, 2015).

### **Reflection**

In ST, one of the ways to continue the communal value and maintain social order was the communal decision-making process to counteract personal interests and unintended hierarchy through flat organisation structure. However, ST confronted the rebound effect of scepticism that a veto of a single person might block active people. There were chances if a person was competent enough to decide considering their knowledge base. The challenge in ST was also on the scepticism of the decisions inclined to certain influences and advanced knowledge of key stakeholders, like the founding members. Such a scenario can result in an unintended hierarchy.

ST had a regular discourse on participation for two reasons. First, no one gets marginalised because of their lesser knowledge base. Second, no proper decisions get marginalised because of some illogical and incompetent values and positions. Common participation was a promising way to create mutual trust and honour good decisions- not opposing them in the name of equal participation. In plenary, the decision-making process focussed on creating opportunities rather than criticising or blocking activities of the members. The members could only veto if they could propose an alternative logical proposal. However, some members still felt that ST community needed to evolve and adapt because of the scepticism of founders' influence and their advanced knowledge (Kunze & Avelino, 2015).

ST's governance structure was flexible enough for the consensus decision-making process and providing maximum authority to the working groups at the lower level. The alteration means to deliver competent decisions on the appropriate selections of means for specific goals. ST also supported innovative ideas even of a single competent member who had experience and knowledge about the topic or groups that might consist of non-community members. Furthermore, such innovations require informal platforms for discussions, conflict resolutions and polished before they are brought forward to the formal structure. Such informal platforms are integration space and save much time for iterating ideas and help to encompass other marginalised members.

#### **d) Integrating (2014-till now)**

Since 2014, ST had involved with public authority's policy and integrated administrative boundaries. ST, as a community, on the one hand, has adhered to its communal values of

intergenerational living, on the other hand, accepts the already existing cultural values of the surrounding, like Jagstregion. Jagstregion is traditionally known for producing ‘most’ (apple cider) from its orchards than fruits or juice (Kunze & Avelino, 2015).

ST has moved further by committing to participate in politically defined Kressberg’s village council since May 2014, reflecting its step toward the transition to the mainstream society (Kunze & Avelino, 2015; Schuster, 2018; Stang, 2018). Furthermore, ST members have been directly involved in collaboration and partnership with the municipality and other regional actors, especially in agriculture and preservation of the cultural landscape. It also had plans to produce self-grown ecological gourmet products like apple juice, herbal teas, fruit, and vegetables, which were saleable in the region. The gardeners from ST picked up fruits and help in the gardens with their expertise in the surrounding region (Stang, 2018). The groups of



Figure 7 The Earthship Building

orchards covering different areas comprise Jagstregion. The municipality in collaboration with ST farmers also started ‘Frankische Mostrasse’ (Franconian Most/cider Street) as a regional label for tourist marketing over several hundred kilometres reaching as far as to the Danube River.

Furthermore, ST has initiated experimental housing with the Earthship building as per the new experimental housing law in the state of Baden-Wuttenberg. ST has expanded its cohousing

concept to the neighbouring areas. In 2015, one of the ST associates bought Linde-Hotel in Waldtann, and the neighbouring village in Lustenau called Villa Tempelblick that had ten apartments of ST cohousing concept.

## **Reflection**

The phase reflects ST's integration into political, institutional framework apart from considering the ecological balance. In general, some EVs value autonomy and isolation because of their independence, their spiritual sentiments and going away from the materialist attitude (See Litfin, 2012). It resembles EVs autopoietic nature and their self-sufficiency and self-regenerating characteristics, for example, Seven Lieben EV. Some EVs emphasises the ecological interactions and balance (See Borsos, 2009). However, such settlement exists only in the religiously and spiritually inspired communities like monasteries. In conventional society, people are influenced by political and economic factors.

Several alternative initiatives are active outside of the political and economic arena with the hope that the initiatives can influence changes in the current unsustainable practices (See Jackson, 2004). However, in ST, the EV concept and methods are used for sustaining livelihood and maintaining its shared values within the mainstream society, rather than replacing it. As such, ST is a part of the regional context, rather than marginalised, absorbed, or crushed by the mainstream system.

From a pragmatic point of view, the political and economic boundaries of ST is open to the external environment for resource and knowledge exchange, and even institutional framework changes. Conceptually, ST embraces human-constructed worldviews in concert with ecological worldviews. Integrating community into a broader regional aspect with the EV concept and contributing to regional development seems to be one of the first steps towards integrating into the political and economic arena.

In conclusion, the integration suggests that ST is not isolated, but it adheres to the symbolic values of the place; that is, community identity within the regional landscape's values. This reflects ST's respect and contribution to the regional cultural landscape. ST's contribution to the cultural landscape of Kressberg region is inherited as culture, both tangible (built structures and physical things like orchards, farm, Jagstregion) and intangible (like agriculture, festivals, events, names, and practices).

#### **5.1.4 Findings and Analysis- Based on the EV Themes**

The analysis of critical turning points of the chronological development of ST (from settling to mainstreaming) highlights its focus on socio-economic stability based on communal value rather than on individual goals. On the one hand, it suggests the resourcefulness of the ST for different resource conditions. On the other hand, it means the pattern value maintenance of communal living with equity in resource allocation. The socio-economic stability seems to depend on the following factors: how resources are managed within ST and respond to the landscape; how the community organisations are built and opened for innovations and change; how ST provides opportunities for collaboration with surroundings; how knowledge is generated, shared, and valued within ST while exchanging with regional surroundings in coherence with regional identities.

ST is characterised from internal and external aspects. Internally, ST has developed the foundation for stability, and externally, integrated with surrounding for resource and knowledge exchange in developing cultural landscape through EV themes: resource management, community organisation and knowledge sharing.

##### **a) Resource Management**

For ST, the core idea is to bring stability in terms of economic and other materialistic resource demands. Since the initiation, resource-wise, ST has two focus areas: shared economy, and reduction in energy consumption. The foundation has facilitated all the innovations through a cooperative that fulfils the basic needs internally and facilitates partnership with the surrounding externally through different projects.

##### **Internal Structure**

Internally, ST highlights a strong socio-economic communal foundation for proper collection, investment and saving of available resources for various activities and innovations (See Kunze & Avelino, 2015). ST has initiated various economic innovations of sharing economy: newcomers' deposits; need-based salaries; gift economy. New members paid a certain deposit for a period; part of it was used to make ST's mortgage-free. If anyone wanted to leave the place, then the original deposit would be repaid according to the original loan agreement ("Frequently asked question (FAQ)," 2013; Kunze & Avelino, 2015; Stang, 2018). Furthermore, the cooperative incurred all salaries on a need basis, and channels the surplus towards ST's financial cooperative (registered in public authority) that could also finance other initiatives. ST also set a trend of the culture of the gift economy in which individuals would

receive valuables as immediate or future rewards rather than traded or sold. Presumably, these steps have created a culture of trust by supporting members financially through the communal frame of mutual help (Kunze, 2015). It has also created a culture of transparency by maintaining the economic balance through fulfilling the basic economic needs and simultaneously checking a single member's expenses and savings.

ST has provided affordable housing and practised land use through ecological and social guidelines. ST has initiated eco-low technologies for reducing energy demand. Some of the initiatives are the Earthship building through passive house technology, the energy transition scheme to generate own electricity using photovoltaic, manure to bio-gas plant, and renovation and rehabilitation of old built structures in the frame of current building bye-laws to optimise building materials demand and reduce cost and energy for new materials. Furthermore, ST has common kitchen and dining hall to reduce the wastage of food, and the energy to cook, and the consumption of meat and dairy products that consume much more energy than vegetables (Stang, 2018). ST's agriculture production is also based on permaculture to conserve agricultural productivity of land and check on haphazard growth around productive land. ST has regular conflicts with neighbouring farms on the use of insecticides and weedicides (Kunze & Avelino, 2015).

In conclusion, ST has maintained its value of intergenerational equity through different measures in resource self-sufficiency, interdependency, and solidarity. However, ST has not been either a profit-motivated for resourcefulness and stability, which is often accompanied by resource exploitation or to produce everything by itself. ST has fulfilled the basic needs for a standard way of living. At the same time, it has maintained the social order, interdependency, and shared value of the community by retaining the current members as well as attracting future members.

#### External Structure

Externally, ST has performed as an entrepreneur for various levels of investments and partnerships in terms of finance and expertise in projects. ST has received financial investments from non-members through trust and charity in projects. For example, ST energy transition scheme received funds from a sponsor of ST incorporated society and an investor of Genossenschaft Tempelhof, eG. ST also incurred financial investments from external participants through various events and programmes in their respective working groups. Furthermore, ST has invested its financial resources outside the community as an eG

(eingetragene Genossenschaft) on housings, farms, and energy. For example, ST offered its foundation for purchasing and owning land to ecovillage initiatives starting all over Germany (Kunze, 2015).

Similarly, ST established 'MoWo' factory for building comfortable wooden trailers and a low-energy wooden comb house in the nearby village (Kunze & Avelino, 2015). In terms of expertise, ST has partnered with Kressberg region to maintain the cultural landscape of Kressberg. ST shared its expertise and experience in the maintenance of orchards, buildings and agriculture. On the hindsight, the partnerships have facilitated ST to select its innovative measures and maintain its values of intergenerational equity.

Since its initiation, ST supplied organic vegetables to the surrounding. In return, it received other necessary supplies like equipment, dairy products, and meat from the surrounding region. The resource exchange reflects that ST does not emphasise on autonomous and self-sufficiency only.

Irrespective of the EV's autopoietic nature to remove the external influences, or just opens boundary to the ecological interactions, ST has maintained its linkage to regional cooperation. ST has opened its social boundaries to participate in the political and economic institutional framework and the eventual resource exchange in terms of material, finance and expertise. The resource exchange has required the overlapping of measures that on the one hand, contributes to the objectivity of the surroundings, and on the other hand, has stabilised ST's value despite the dynamics of resource conditions.

#### b) Community Organisation

Since the initiation, ST has created self-governance structure that facilitates different forms and contents of community organisations based on cooperative interactions and consensus decision-making process. The ST's governance structure has different levels of participation space that facilitates different modes of decision-making process internally, and collaboration with external institutional frameworks.

##### Internal Structure

Internally, ST's main aim in the organisation is to create a space for proper communication, negotiation, tolerance and support based on personal commitment and trust (Kunze & Avelino, 2015). For personal commitment and development, ST practised WE-process based on Scott Peck's community-building practice as the core of any organisation. According to Stang (2018), the process works on the principle- everybody is a leader. Theoretically, it means, there

is no power, no leader, or other senior figures, but everyone is responsible for the whole. The process helped to put the personal growth following the communal benefits and priority and through social interactions (Schuster, 2018; Stang, 2018).

There are two aspects of using WE-process. The first aspect is the feeling of being a part of a community rather than individuals. The process is a part of internalising intergenerational equity as the common value. The internalisation facilitates resolving conflicts in case of different individual interests. The second and most visible aspect in ST's governance structure is the decision-making process through different working groups (or committees) as organisational structures. Each organisation has specific roles and objectives, in making proposals and resolutions for discussion and then forwarded to the upper three levels of governance structure, eventually forwarded to the highest level, i.e. public meeting. In a public meeting, all the participants could vote, express their opinion and make a final decision (see section 5.1.2).

The concept of cooperation is the key to any forms and contents of organisations. ST's communal ownership has a cooperative organisation of producer-consumer based on solidarity- i.e. Solidarbetrieb. There were groups of producers (who work in the farm) and consumers (that use the products) within the community. ST's underlying characteristics of the cooperative is the balance between self-initiative, co-determination, and equal access to its members to the resources. ST was associated with Artabana alternative health care movement. The movement has introduced a cooperative form of caring system for disabled and ill people, who were living on their pension money. Some are working additionally, for example, as a healing therapist (Kunze & Avelino, 2015). The cooperative paid younger people's children for taking care of older people in case of illness and disability.

In summary, ST has introduced cooperative organisations in different forms and contents of governance structure, based on everybody is a leader principle. The norm of equity and consensus decision-making process in any organisations is the key to maintain the value of intergenerational equity.

#### External Structure

Externally, ST has collaborated in the political and economic arena with mainstream society. In the political arena, ST is represented in Kressberg Village Council. The representative expresses ST's visions, and views and opinion on any issues concerning Kressberg region. ST was, for example one of the collaborators for Kressberg's tourism project. ST is a



touristic demonstration site for sustainable living, permaculture and alternative education system. The interaction between ST and the Kressberg village council is cooperative. The cooperation can supplement each other's objectivity and values in policy frameworks. The policy could augment the regional identity, for example, Jagstregion, and enhance ST as the demonstration sites of sustainable living.

In the economic arena, ST cooperative opened bank accounts for the outsiders' investments. There were five options: forest project through Tempelhof trust, sponsor at Tempelhof Incorporated society, Tempelhof energy transition scheme, sponsor young people of Tempelhof, an investing member of Genossenschaft eG ("Frequently asked question (FAQ)," 2013; Stang, 2018). The cafe, which was solely for the community, was also opened for neighbouring settlements even for family celebrations and weddings.

In summary, the cooperative form of organisation is the key to any interactions between ST and its regional counterparts. The cooperative interaction between ST and the regional actors influences the process of combined goal settings based on their interests, potentials, and then selecting appropriate measures accordingly. The organisations have definite patterns of the consensus decision-making process.

### c) Knowledge Sharing

After the establishment, ST has become one of the demonstrations and dissemination sites for EV's sustainable living. ST shares different tools and practices for different societal problems and at the same time disseminate its values into the mainstream political and economic institution frameworks.

#### Internal Structure

Internally, ST disseminates ideology, information, and experience in the community building process in three ways: village school, informal activities, and self-employment.

ST has claimed its village school as a new and unique model that foster motivation to communicate, share, or ask for mutual advice and supports (Kunze & Avelino, 2015; Stang, 2018). The school was a fundamental internal institution for embedding shared values in students' personal growth. The teachers were called learning assistants because they encouraged students to self-learn either individually or in a group. The students were encouraged to share what they learn, experience and do rather than using the frontal and standard teaching methods with the fixed curriculum. According to Kunze and Avelino (2015), this may result in following and excelling skills in two ways. First, students face to managing

themselves and being more responsible for their motivation, effort, and success and decision. Second, the socio-organisational structure help students to develop social competences and can explore how to behave and move inside the group. Students also learned as interns in various projects.

Different workgroup circles in ST are informal platforms of social forum, where residents can communicate, share, and get mutual advice on their experiences. Some self-realising programmes and activities help to question and develop one's attitude about social interaction. For example, Scott Peck's WE-process and the social forum (every Wednesday evening) were focussed on questioning old habits and stereotypes (individualistic) and listening to and understanding others as well.

ST has facilitated opportunities for personal growth through various self-employed entrepreneurship. Apart from professional activities, individuals explore and learn new occupations as well. According to (Kunze & Avelino, 2015), in ST, such opportunities were given mainly in three ways: opportunity to join workplaces and get professional advice; entrepreneurship opportunities in agriculture, building construction, energy, carpentry, and cooking; opportunities to experiment innovations in those sectors. Failure was accepted based on the trust and hope of achieving broader knowledge.

In summary, ST indicates that the process of knowledge sharing through school, informal participation, and entrepreneurship. The process also represents the socialisation process in which individuals acquire knowledge on values through sharing, learning and experiencing.

#### External Structure

Externally, ST characterises as the demonstration and dissemination site of knowledge on the shared economy and communal living against the modernity of the mainstream development. ST has disseminated knowledge in three ways: national and international networks; organising regular programmes and events; and multimedia and publishing.

At the international level, ST is a part of Global Ecovillage Network (GEN)-Europe, Stop TTIP- European Initiative against TTIP (Transatlantic Trade and Investment Partnership), and CETA (Comprehensive Employment and Training Act). ST believes that TTIP and CETA (that advocates free trade) may increase the power of multinationals at the expense of democracy. At the national level, it had an office of MehrDemokratiee.V., the German Headquarter of the federal association of direct democracy. It is also a part of Artabana- a solidarity health care network all over Germany. Similarly, ST has a link to the Netzwerk Gemeinwohl okonomie

(Economy for the common good) network that advocates a more ethical economic model of the well-being of people and environment as the goal of the business. The networks supplement to its already existing communal values of intergenerational living and economic solidarity. The networks also reflect ST's aspiration to regional cooperations.

ST has organised regular programmes and seminars with experts from different fields (international and other regions) on solidarity economy and community building process. For example, Dr Ha Vinh Tho, (director of the Brutto National Happiness Institute in Bhutan, which assists the goal of increasing happiness in practice) presented on 'the inner and outer conditions of happiness'. Furthermore, ST disseminated experience through multimedia and publishing. It had a website where it regularly published digital newsletters and schedules of events. Such measures are the integration platforms for exchange, interpretation, and acquisition of knowledge for different resource conditions and mainstream institutional frameworks- economic, social, cultural, and political frameworks.

### **5.1.5 Inferences**

The analysis of ST highlights that sustainability may not be the ultimate core value of a community. However, sustainability is embedded in different forms and contents of the community's shared value, for example, intergenerational equity. For ST, equity in resource allocation, and ecological considerations are one of the edifices of sustainability but not the whole value of sustainability. Intergenerational equity is embedded in their lifestyle as the cultural value with different norms and regulations. Internally, sustainability appears in different measures for different goals, which may not necessarily be sustainable. Externally, sustainability appears in different forms and contents of regional cooperation between and surrounding in a whole system perspective. Sustainability appears in the contents of different measures and policies but not necessarily the ultimate objective of the cooperation.

#### *5.1.5.1 Cultural Value maintenance*

In ST, regardless of the goals of different activities and consequent interactions, the execution of such activities are underpinned under the maintenance of the shared value of intergenerational living.

The case of ST suggests that the pre-condition to maintain the value is to develop a lifestyle or culture based on developing solidarity despite differentiation and variations. ST has maintained enduring ties of solidarity and moulded patterns of social organisation based on that cultural value. ST has developed the shared frameworks of law, informal normative orders, custom,

and morals that it can adhere to and at the same time, maintain the cultural value on intergenerational equity.

For ST, individuals learn, communicate, internalise, and performs according to the value in terms of morals, norms, and customs and eventually perform through different social and integrative platforms like Free school and working groups platforms like We process, permaculture training, and other learning activities. The value-based norms not only define the scope of action and influence of groups in a community but also help in establishing bases of trusts, confidence, and solidarity among groups. The common social platform not only serves as the medium for integration but can also act as the learning space, where individuals can actually internalise the shared values through the socialisation process.

ST has emphasised the cooperative organisations that do provide not only the communication platform but also represents a space that connects different individuals to shared elements of cultural value. ST's space of cooperative organisation also stores the customs and informal normative culture associated with intergenerational living. Individuals that behold the shared elements of ST's cultural value of intergenerational living is socialised and supposed to act by expressing and maintaining ST's cultural value in front of individual interests.

To maintain the social platform and integration for disseminating the values, ST adapts to different resource conditions that bring all individuals to organise and integrate. ST sees economic stability and equity on allocating resources as the proper resource condition for building societal integration and cooperative organisations. Despite age variations and inefficiency (even older people who cannot work), economic solidarity facilitates an equal opportunity to the resources. This is often referred to as the social economy.

In conclusion, ST develops the cultural values that give identity and also share the responsibility to transmit or reproduce the cultural value in the future. A cooperative organisation pattern often results in developing the cultural value in which social growth embedded in the values accompanies individual growth. Furthermore, the social economy contributes to low impact living which also highlights the latent value of interdependence and equity, leading to sustainability.

#### *5.1.5.2 Regional Cooperation*

The case of ST also highlights that ST's aspiration to translate into mainstream society. Unlike idealistic EVs (See chapter 1 and 2), ST is not isolated and fully self-sustaining. ST depends on its surroundings for food like meat, dairy, coffee, and unseasonal food as well as various

construction materials, and clothing. ST has maintained a connection to the public authorities, for example getting access to infrastructures like roads, water supply, telecommunication, and electricity. ST as a social system was focussed internally in developing the value of intergenerational living through the communal solidarity-based economy and democratic decision-making process. However, ST's political and economic goals were highly influenced by its relationships to various political and economic institutional frameworks and regional networks. ST perceives these regional influenced goals as the way to maintain its values, at the same /time infiltrate the modernity bound mainstream policy. From the whole system perspective, ST is in continuous eco-centric and anthropocentric interactions with the regional actors in different resource conditions defined by the social, economic, political and ecological arena.

ST's has a connection to various national level networks, politically (MehrDemokratiee.V.) and economically (Netzwerk Gemeinwohl okonomie- Economy for the common good). ST has employed ways to link or cooperate beyond the internal structure based on the broader political and economic arena. Such initiatives and intentions refer to a step towards translation into mainstream development.

One of the ways to integrate with the surrounding is through participation in mainstream institutional frameworks. ST has always sought opportunities for some common elements of values between the community and the surrounding region that helps its transition to mainstream policy. From the very beginning, ST is connected to the regional policy through intermediary projects that contribute to regional identity. ST confronts the challenge of integration to greater Kressberg region politically and economically, and at the same time maintains a certain distance to retain its values while contributing to the regional identity.

One of the examples of ST's intermediary projects in the transition to mainstream society is the orchard maintenance with the regional policy on the maintenance of the cultural landscape. As an intermediary project, ST conceives orchard maintenance as the way to secure the older people's contribution. Most of the orchards were owned by older people, while younger people worked on it. At the regional level, the project contributes to the Kressberg region's policy of the conservation of orchards and farms of the region. Kunze (2015) has mentioned that such cooperation was visible in land purchase from local institutions and the municipality, getting permissions for their enterprises, and legalising their architectural plans, and land use.

In conclusion, the intermediary projects satisfy not only the mainstream requirements but also the ST's value maintenance. Such intermediary projects are the space for regional level interaction and cooperation. The interactions are mostly on the negotiations on the use of resources, primarily focussing on pattern maintenance of the shared values. Nevertheless, at the same time altering solutions and practices after learning the mainstream society's objectives. ST also features participation through network developing that can help the ST to present its communal values into the mainstream institutional frameworks. Internally, ST's community building is underpinned in consensus building. Externally, regional integration is based on negotiations with values and practices- what the community can give and what it gets from the surroundings.

## 5.2 Bandipur Bazar, Tanahun, Nepal

This section presents Bandipur Bazar as a contemporary settlement, which is not intentionally an Ecovillage. The case is intrinsic that highlights the intrinsic value of sustainability in revitalising once a broken settlement. The section analyses the narratives of Bandipur Bazar, key social interactions and resulting actions that may be perceived sustainable based on three EV themes.



Figure 8. Bird's eye view of Bandipur Bazar

### 5.2.1 Introduction

Bandipur Bazar is a historical trading village that lies 8 km up the hill from one of the main highways, connecting two of Nepal's most popular destination- Kathmandu (about 135 km) and Pokhara (approx. 80 km). It is located at an altitude of 1000m above sea level. The



Figure 9. Bandipur and its altitude



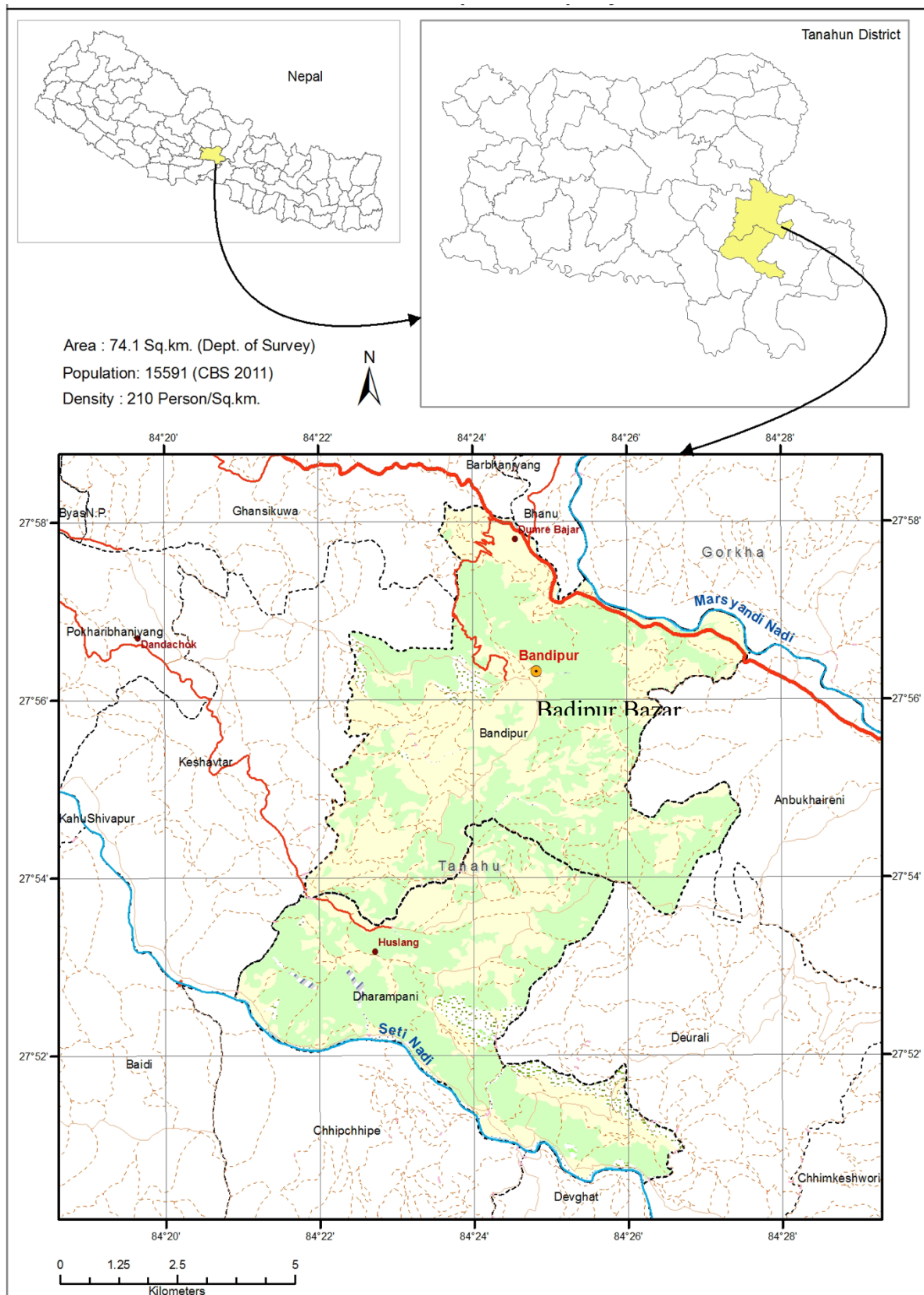


Figure 10 Map showing location of Bandipur Bazar, Bandipur Rural Municipality, Nepal

Bandipur Bazar lies in Ward 4 of Bandipur rural municipality. At the time of 2011 census, the municipality had a population of the total (Bandipur Bazar and Dharampani) 15,591 people



living in 3750 households.

According to Iltis (1980), Bandipur Bazar (market square) is an example of the development of a settlement based on a specific lifestyle and cultural activities. The main market square settlement resembles an intentional community, which was a trading centre for the migrating trading *Newars*. The influx of *Newar* traders put Bandipur Bazar in the picture with *Newari* culture and ancient architecture. In the 1970s, Bandipur Bazar was described as a 'ghost town' since many inhabitants emigrated from the area to search for better living (Pia, 2017; Pradhan, 2017; Sharma, 2017).

Nowadays, the overall Bandipur rural municipality is a tourist and educational destination. It is a picturesque town/village nestled in the Himalayan foothills, as a hill queen place or living museum of *Newari* culture (Ruska, 2012). It is also popular as the educational centre for the surrounding region with good high schools and training centres.

### **5.2.2 Method**

The information collection process is three folded. In the first part of the study, the researcher made an extensive literature study through the internet, online sources and academic databases on Bandipur Bazar. The searches resulted in a master thesis, project report, newspaper articles, and scientific articles. Four sources were particularly useful for understanding the history of Bandipur Bazar (Iltis, 1980; Joshi & Rajopadhyay, 2007; Mishra & Magar, 2017; Ruska, 2012).

In the second part of the study, the researcher had conversations with one of the ex-officials from the Nepal Tourism Board (NTB). He was involved in developing community-based homestay in Bandipur Bazar under TRPAP (Tourism for Rural Poverty Alleviation Programmes). The researcher had conversations with him on available resources/potentials in Bandipur Bazar, the way the community organises in executing any actions, and the ways of knowledge dissemination. The researcher also got contacts of some of the informants in Bandipur Bazar. The key informants were mainly the entrepreneurs in Bandipur. The researcher developed a framework for questionnaires and key aspects to observe during a case study based on the literature review and conversations with the informants (see Appendix 6).

In the third part of the study, the researcher made a case study on Bandipur Bazar (see Appendix 7). The researcher derived main empirical materials from observations and interviews. During the case study, the researcher stayed in one of the homestays.

The case study included eight semi-structured interviews, six being residents, an entrepreneur from Patan and the project coordinator of Bandipur Bazar Eco-Cultural Tourism Project (BECTP). The interviews covered three main topics of Bandipur Bazar: its history; its potentials; its plans, and most importantly, its cultural value and regional level cooperation.

The researcher made observations, took pictures, and noted down various interventions like road pavement, ongoing new construction, and people's activities around the Bazar area for further interpretation. The researcher acknowledged their religious inclination, social dynamics, physical terrain, geological formations that influence their daily life to unveil deeper insights into their lives. The researcher had a tour to Siddha Cave with local boys. During the tour, there were some meaningful discussions and their perception in the future in Bandipur Bazar.

### **5.2.3 Findings and Analysis- Historical Development of Bandipur Bazar**

Four general phases (Pia, 2017) could describe the Bandipur's historical development: Prosperity stage (before 1968), Decline stage (1968-1980), Revival stage (1980-2007), and Integration stage (2007-till now).

#### **a) Prosperity Stage (-1970)**

Bandipur was initially a village of Magars, one of the ethnic groups of Nepal, and an agrarian community. The growth of Bandipur as a trade centre started with the influx of *Newar* traders from Bhaktapur around the beginning of the 19th century (the migration was around 1775 - 1800) (Iltis, 1980) and established a market area. This trade route existed until the 1960s (Iltis, 1980). Other reasons for the migration of *Newars* were its highly desirable climate and naturally devoid of malaria (Iltis, 1980; Pia, 2017). The early trade began with an exchange of Tibetan salt with Nepali rice, and then with medicinal herbs, paper, silver, gold duct, wool products, horses and goats from Tibet with buffalos, European articles, corals, cotton, tobacco, spices, pepper, wrought copper, iron and brass, glassware, mustard oil, and kerosene (Hamilton, 1819: p. 181 cited in Iltis, 1980, p. 108).

In the 1950s, the eradication of Malaria in Chitwan (in Terai- Flat ecological region in Southern part of Nepal) opened for settlement to the hilly people in Chitwan. The prospect of new land investment was a great attraction for the *Newars*. They expanded their monopoly on trade southward by setting up a new business community called Narayanghat along the Narayani River (Iltis, 1980). The establishment also created the network of trading further in the south and changed their lifestyles. At first, for six months, families stayed in Bandipur Bazar during

the summer months when the climate is cooler. Later after Dashain, after harvest, the father or the eldest son would spend six months in Narayanghat. Families, who wished to open new businesses were able to send one son to manage the new shop in Narayanghat. The whole family stayed in Bandipur Bazar, resulting in two sources of income.

Furthermore, the clearing of forests and construction of dirt roads between Devghat and BhiknaThori facilitated the transport of goods to and from the Indian border. It increased the accessibility of Indian goods and other products to export in Tibet. Various infrastructures came to Bandipur Bazar, like pressurised water pipeline system, mechanised rice and oil mills, and the possibility to establish Bandipur Bazar hospital and medical facilities (Iltis, 1980).

Politically, during the Rana rule (1846-1951), Bandipur Bazar was the zonal headquarter for the zone West No. 3. The military barrack was established in Tundikhel[i]. The political importance increased the flow of traffic through Bandipur Bazar Bazar further enlarging trade and commerce making it a convenient site for formal business transactions. The development also saw preferences given to formal education in Bandipur Bazar community[ii]. Nevertheless, at that time, politically, the Rana regime suppressed any educational development. The education projects: high school and public library were permitted to resume after the end of the Rana regime in 1951.

## **Reflection**

The Bandipur Bazar's development highlights the classical circular development-identification of proper location (land to build) because of the livelihood opportunities (agriculture); change in livelihood conditions (introduction of the market). The livelihood opportunities are based on either natural or artificial or both resources, such as agriculture, tourism, trading, or industries. Based on the available resources, the establishment of Bandipur Bazar as a trade centre is explainable from three pulling conditions: geographic, economic, and political. Bandipur Bazar's geographic condition has made it climatically suitable for living and accessing natural resources. For Bandipur Bazar, geographically, the area has neither warm nor cold climate and is a malaria-free area. It is on the flat top of the hill, making it safe from landslides, river flood, and human threats (war).

In Bandipur Bazar, the livelihood opportunities were based on the trade. Apart from their locational attributes as a part of North-South Trade Route, the *Newar* traders had a monopoly and easy access on the trade opportunities. Based on their experience and skill in trading, *Newar* traders used trading as the primary means of subsistence in Bandipur Bazar.

Politically, the establishment of governmental district headquarters, army barrack and service centres like hospitals and schools, were the result of such policy interventions had made a positive impact for growth and development for trading.

Bandipur Bazar's trading interdependences were based more on human relationship, i.e. *Newar* traders' relationship and their role within the trade route. The governmental policies had facilitated to set up any resource-related goals, primarily focussing trade. Trade became the major means of subsistence, with agriculture as a secondary enterprise for the incoming *Newars*.

Furthermore, Bandipur Bazar illustrates the dynamic functional relationship and interdependencies in allocating and managing trade between two different lifestyles. For example, Magars' main occupation became labour (porter) management for transportation, exchange of local products, through community organisation and knowledge sharing among individuals within a broader region. The trading has set up an amalgamation of two different kinds of lifestyle, the indigenous Magars- an agrarian community, and the *Newars*- prolific traders.

#### **b) Decline Stage (1968-1980)**

There were mainly two reasons for Bandipur Bazar's decline: removal of the District headquarters and construction of Prithvi Highway (Iltis, 1980; Pia, 2017; Ruska, 2012). In 1968, as a part of the reorganisation of political and administrative systems of Nepal by King Mahendra, Bandipur Bazar lost the status of the district-headquarter. Furthermore, the planning for the construction of a road linking Kathmandu and Pokhara began. Unfortunately, the road was planned along the river valley, 2000 feet below Bandipur Bazar, virtually bypassing it. Both these factors slowed down the trade-traffic and were directed to Damauli, the new headquarter. Business suffered, and people started to move to Damauli along with the government officers and their families. The local people's committee made several requests to the Department of Road and Chinese officials for rerouting, but it was considered inappropriate. The local people constructed a motorable dirt road between Bandipur Bazar and the new highway, by raising funds.

The highway was completed in 1973. However, the construction of Bandipur Bazar access road was effective neither in keeping a large number of families from moving out of Bandipur Bazar to the highway nor in drawing trade into Bandipur Bazar. In a rushed attempt to save their

businesses, two small settlements, Dumre and Bimalnagar were established to create a trading stop along the highway road.

The new establishments affected the small outlying communities around the market centre, who had reduced their dependence on farming and had developed greater dependence on earnings as porters. After losing their skills in farming due to trading, they gathered wild plants for food without proper knowledge of identification resulting in some fatal cases. Others, who could make various craft goods as an alternative, did not have a convenient market (Iltis, 1980).

### **Reflection**

The Bandipur Bazar's decline was not from ecological disaster or exploitation of natural resources but from policy interventions, i.e. the construction of Prithvi Highway and shifting district centre to a new location. Referring to the classical pillar model of sustainability [iii], the construction of Prithvi Highway and shifting of the administrative centre would not have affected the sustainability of Bandipur Bazar, internally. The case of Bandipur Bazar illustrates the limitation of classical three pillars (or four-pillar model) of sustainability. It was unable to explain the embeddings of sustainability in different forms and contents of the dynamic interactions of Bandipur Bazar with the surroundings in the management of resources, community organisations and knowledge sharing.

The sustainability of Bandipur Bazar was affected by two mainstream policies that have a strong impact on regional dynamics, especially in having access to the resources. Abstaining access to the resource is likely to create an unsustainable scenario. The planning authorities were unaware of the relationship (socially, environmentally, and economically) and the impact of their decisions. Alternatively, even if they had considered, the priority was on the economic viability in interlinking Kathmandu and Pokhara, two of the major cities in Nepal rather than Bandipur Bazar. However, this does not necessarily mean that a highway or restructuring should not be made. Planning policies could have considered the impact on national, regional, and local levels and other viable alternatives. The policy highlights the top-down planning process in which national-level planning practices often bypass local level impact.

Bandipur Bazar as a social system interacted with the surrounding in sharing resources by creating the spatial condition, i.e. the trade centre from which the surroundings could also share or get access to the resources across space and time. The existence of Bandipur Bazar for two centuries as a trade centre illustrates the case of sustainability and the importance of maintaining the pattern of lifestyle. The values associated with the resource potentials are

latent, for example, Bandipur Bazarian's skill in the trade. Inability to maintain the pattern could bring instability and dissolution of the society. The maintenance of values is dependent on the resource conditions and the subsequent evolutions of measures in case of a change in resource condition. The worst scenario is the demise of the value in case there is no evolution of measures to the resource accessibility, as highlighted by Bandipur Bazar.

### c) Revitalisation Stage (1980-2007)



Figure 11. The conserved central square of Bandipur Bazar

Bandipur Bazar started its revival stage from 1980 to 2007 as an educational, cultural and tourist centre. Since the early 80s, the local people have developed various strategies for this new identity, which is called T-H-E (Tourism-Health-Education) Bandipur Bazar (Pia, 2017; Sharma, 2017).

During the period, tourism was the significant aspect because of Bandipur Bazar's scenic location, *Newars'* rich cultural heritage and suitable climatic condition. The view from the park (Tundikhel) towards the valley and mountains is still beautiful. The marketplace was quiet and peaceful; water was readily available. Bandipur Bazar also make an excellent overnight stop on the route between Pokhara and Kathmandu. The first notable hotel was built in 1980, and Bandipur Bazar was thriving because of local individual endeavours on tourism. The major

turnaround was in 2005 after the initiation of Bandipur Eco-cultural Tourism Project (BECTP). The overall objective of BECTP was *'to build on the existing programmes and infrastructure of Bandipur Bazar to develop Bandipur Bazar as a sustainable eco-cultural tourism centre with a network of similar hill towns to revitalise, protect and promote their cultural and natural resources with programmes that have replication values'* (Joshi & Rajopadhyay, 2007, p. 8). The project was divided into three primary activities. The first was infrastructure development that included restoring and adaptive reusing of some private houses for eateries and accommodations, tourist sites, and repaving the main market area. The second was improving human resources and capacity building focussing on three topics: natural and cultural heritage conservation, environment, and tourism. The third was tourism promotion and publications of Bandipur Bazar as a new destination in domestic and international markets (Joshi & Rajopadhyay, 2007). The project period was from 2005 to 2007.

The local people also expected that developing the medical facilities would bring more livelihood opportunities in Bandipur Bazar. The existing hospital was upgraded to district level hospital. However, it was difficult for Bandipur Bazar to maintain even full-time doctors (Sharma, 2017). According to Sharma (2017), few enquiries were about the possibility of availability of land for investment in building a modern hospital in the region.

Bandipur Bazar also envisioned its revitalisation by expanding its educational facilities. The first school established was Bhanu Higher Secondary School established in the 1950s, which was the only institution offering higher education until the 1980s. In 1985, the 'School Sisters of Notre Dame', a Catholic missionary organisation established Notre Dame School. It is still one of the most popular schools in Nepal. In 1980, Bandipur Bazar also got one public graduate college 'Bandipur Bazar Campus' affiliated to Tribhuvan University, offering Bachelor of Education Programme. Many adults in Bandipur Bazar were schoolteachers. Students from the surrounding areas living as far as three days walking distance attended schools in Bandipur Bazar. They rented rooms with friends and families in the vacant houses. The educational institutes provided new source on a reliable income.

### **Reflection**

Resource-wise, Bandipur Bazar's revitalisation stage features the identification of potential alternative resources and any policy interventions that do not affect the accessibility to the resources. The prolonged resource access was the main criterion for Bandipur Bazar's local people in identifying new resources and ensured that those resources are long-lasting.

The people ensured that they could interact spatially with their mainstream actors and neighbouring settlements. On the one hand, interaction takes place following the potentials and resources of the area. On the other hand, it ensures that the management of resources complies with the existing mainstream policies. The policy triggers the changes in goal settings and resource allocations, as has happened after losing the status of the District Headquarter and the construction of the highway. Bandipur Bazar identified tourism, health, and education (THE) sectors as their potentials, based on tourism-based government policies, already existing infrastructures, and entrepreneurship skills of Bandipur Bazarians. The BECTP was one of the intermediary projects developed based on the factors mentioned above. The BECTP focussed on building confidence and sense of belonging in the local individuals through initiatives based on the available potentials for its revitalisation. The project built diverse networks to disseminate their potentials and connect to other initiatives in different places. The BECTP has characteristics of cultural heritage based sustainability.

Furthermore, in Bandipur Bazar, traditional family and friendship ties as a part of community organisations sustained through *guthis* associated with various festivals and cultural activities despite its suffering in the occupational and institutional aspects of life (Iltis, 1980; Pia, 2017). The forms of traditional institutions like *guthis* resemble a pattern of organisation of different *collectivities* or groups interacting based on social norms. For example, according to Pia (2017), one of the major aspects of BECTP's success was its focus on forming organisations based on traditional institutions, like *guthi*. Consequently, the project had built up the capacity building process on heritage conservation to add to their existing knowledge of entrepreneurship and heritage through such institutions.

#### **d) Integration Stage (2007-till now)**

Even after 2007, different stakeholders consider BECTP as the main triggering factor for the growth of Bandipur Bazar as a tourist destination. After a decade of project completion, people have realised that development cannot be constrained to the bazar area only. The development needs to cover the neighbouring area as well with better and more infrastructures for the maintenance of the ambience (social, ecological, and economic). Pradhan (2017), a hotel entrepreneur, who has been running a hotel for the past 25 years, shares his experience. *'Tourism is a kind of entrepreneurship which cannot be successful by a single person's effort. It is a joint effort, and individuals have to share knowledge and success. In the long run, a single community alone cannot continue the success and development: The surrounding communities have to collaborate in the overall process (Pradhan, 2017)'*. This statement



illustrates their concern for the sustained tourism industry and necessities long-term policies based on initiatives: tourism, and education.

Their concern in a way addressed in the Municipal Transport Master Plan (MTMP) for the then Bandipur municipality, prepared in October 2015 and approved in August 2016. According to Mishra and Magar (2017), the major purpose of MTMP is to integrate various development areas (health, education, communication, tourism) with the help of municipal roads.

MTMP is one of the major plans of the Comprehensive Town Development Plan (CTDP), and it has focussed on the development in five focus-sectors. The first is physical development that includes the construction of 8m ring road, view tower, museum, Children Park, water purifying system, cable car, and picnic spot. The infrastructures focus on promoting tourism industry. The second is social development and promotes of educational centres for quality education, forestry, agriculture, tourism-related training centres (Mishra & Magar, 2017) and service centres like hospital and health centres.

Currently, Bandipur Campus run CMA (Community Medicine Assistant) course under CTEVT (Council for Technical Education and Vocational Training). The training course on Hotel Management- a joint venture of Global Academy for Tourism and Hospitality and Bandipur hotel association is also started (See figure 11). The third is economic development that focuses on the development of tourist destinations and tourist service centres, and the generation of a larger scale of employment. The fourth is institutional development that expects to focus on public participation to tie up the local government to various stakeholders in Bandipur Bazar. The fifth sector is environmental development by developing a buffer zone surrounding the forest areas such as Raniban, Thanimal community forest, Silthok and Baralthok community forest, and restricts industries and hotels establishment.



Figure 12. Renovation of one of the old structures to rehabilitate for Hotel Management course with the joint venture of Global Academy for Tourism and Hospitality.

Furthermore, within the ring road, there is a restriction of vehicles to maintain the historic architectural characters of the old town.

### **Reflection**

The process of integration of tourism and educational initiatives in policies refers to scaling up local actions into long-term strategies for sustainable development. People had lobbied for local government interventions that can develop long-term policies covering their potentials. Bandipur Bazar interacts with the neighbouring communities, as a system-environment relationship. It shares the tourism as a resource, through different entrepreneurship (not necessarily as hotel entrepreneurship only but through other means like organic agricultural products or becoming tourist guides).

The case of Bandipur Bazar illustrates the coherence between policies and actions irrespective of the top-down or the bottom-up approach. For example, BECTP has connected livelihood strategies to their resource/potentials (architectural building heritage and ecological setting) at a local level. Even though the BECTP was completed, and individual targets were achieved, the project team and local people have continued heritage conservation and promote cultural landscape based tourism (Rajopadhya, 2017).

The tourism through heritage conservation is integrated into mainstream policies of the Bandipur Rural municipality. The outcome and knowledge of BECTP have been integrated into MTMP. The BECTP was an intermediary project and the initiatives in the project are scaled up in developing MTMP. The MTMP has focused on tourism development despite its objective of transportation planning. The MTMP illustrates Bandipur Rural Municipality's commitment to a long-term policy that covers regional dynamics based on their value on heritage conservation-based tourism. Furthermore, newer generations are learning entrepreneurship based on tourism and education sectors but simultaneously acknowledging the experience and knowledge of the previous generation. Such actions are always the result of intergenerational intentions. Children are the future made manifestations.

The case of Bandipur Bazar also highlights the maintenance and evolution of the values for sustainable development. Bandipur Bazar is adding value to its regional landscape rather than limiting to a bounded community. Bandipur Bazar perceives sustainable development by linking its livelihood strategies to their resources, and continuing patterns of resource management and community organisation, through knowledge generation and exchange in the future. Bandipur Bazar's emphasis on human-made resources and addressing the exigencies

based on mainstream policies also contrast it from sustainability's environmental concern. In conclusion, the forms of sustainability are integrated into the contents of Bandipur Bazar's conscious discussion- how any activities or decisions would affect their landscape and the resources; what activities could sustain for future generations. The discussions are not only on solutions or goals for current problems but also on maintaining the pattern of maintaining their values.

#### **5.2.4 Findings and Analysis- Based on EV Themes**

The analysis of the critical turning points in the historical development of Bandipur Bazar highlights that for survival, a contemporary community focuses on the accessibility and allocation of available resources. Internally, Bandipur Bazar maintains its pattern of organisations irrespective of the change in resource conditions; however, it develops different measures to respond to the change. Externally, Bandipur Bazar interacts with the neighbouring settlements in developing regional identity. The interactions are the responses to the mainstream institutional frameworks and policies that also refers to the opportunity to maintain its communal identity.

##### **a) Resource Management**

In the case of Bandipur Bazar, the central idea is to sustain the resource access, meanwhile assuring the maintenance of the distribution pattern of the resource for future generations. The primary resource potentials have varied over time: agriculture, trade and, currently, tourism and education centres. The case of Bandipur Bazar highlights that the best way to manage resource is to use it as livelihood opportunities through entrepreneurship.

##### **Internal Structure**

Internally, the case of Bandipur Bazar illustrates two important aspects of resource management: identification, and allocation of resources. Identification of the resources refers to finding potentials of the settlement that can turn into resources for livelihood opportunities for the sustained period even during risks (earthquake) and vulnerability (for example, COVID-19). Resources can be both natural (agriculture, mining, or free petroleum) and artificial (trading, education, and other service sectors). Irrespective of the resource source, identification requires skills, experience, and knowledge. The *Newar* traders' knowledge, skill and experience on trading as livelihood activities matched the natural (geographical), economic and political conditions of Bandipur Bazar. Even when trading was no more accessible, the entrepreneurship skill of the *Newar* traders uses the already existing services, like education

and hospital as their livelihood subsistence. Several efforts were made from individual levels like the establishment of hotels at the community level to extract tourism potentials.

Resource allocation refers to appropriately distributing available resources so that individuals get access to resources and simultaneously, maintain the resources. For Bandipur Bazar, despite the variations in resource potentials, different people access through different measures based on their skills and knowledge. For example, Magars benefitted from trading through livelihood opportunities like porters based on their skill (Iltis, 1980). Many of the *Newars* from the heritage areas started hotel entrepreneurship. The residents surrounding the market area started community-based homestay, provided agricultural products to hotels, guided tours and transportation services to tourists.

In conclusion, identification, and allocation of the resources require knowledge, experience and skills that to not only restrict the over usage of resources but also facilitate harvesting and harnessing the resources based on the external conditions. Bandipur Bazar was adaptive in terms of developing different measures that respond to changing resource conditions and policies-whole system perspective. Bandipur Bazar has patterns of organisations formation based on their knowledge and skill of entrepreneurship that facilitate such adaptive responses.

### **External Structure**

Externally, Bandipur Bazar illustrates two important edifices of resource management: understanding resource conditions and policies, and exchange of resource with surroundings.

First, a community learns the mainstream to explore the potentials under mainstream policies and resource conditions can trigger and facilitate entrepreneurship and innovation for livelihood. The establishment of Bandipur Bazar as a trading centre was the result of *Newar* traders' monopoly on the India-Tibet trade route. Furthermore, Bandipur Bazar grasped the opportunity to develop as education centres due to change in national (external) policy on education.

Second, for a community, identification of potentials triggers the selection of proper means of resource exchange in interactions. Bandipur Bazar innovated ways to exchange the resources with neighbouring settlements and mainstream policies that are important for maintaining communal values and balanced interaction with the surrounding. As a trading centre, it maintained the trading patterns between Indian and Tibetan products and innovated in diverse materials of trading. Similarly, as a tourist centre, it linked to the surrounding villages through

organic products, vernacular architecture and heritage conservation. As an education centre, it has training centres related to tourism and hospitality business.

The external environment has triggered the goal setting for Bandipur Bazar through different resource-based initiatives, for example, trade, education and tourism. The case of Bandipur Bazar emphasises interdependencies between a community as a social system and the surrounding environment through resource exchange. It seems that as a social system, a community's pattern of interaction with the external environment depends upon the communal value and resource availability.

### **b) Community Organisation**

One of the chief reasons for the establishment and survival of Bandipur Bazar is the strong sense of community organisations, inherited in local people. The identification of the resources and the innovative ways to manage them have inherited the Newars' lifestyle based on entrepreneurship and trading. Internally, their patterns of organisations are latent in social institutions like *guthis*, in response to the externally bound policies and consequent interactions with the core value.

### **Internal Structure**

Several authors (Iltis, 1980; Joshi & Rajopadhyay, 2007; Ruska, 2012) claim that one of the chief reasons for the survival of Bandipur Bazar from the decline period was its strong socio-cultural associations. The *Newar* values are based on strong communal living irrespective of different situations. As such, *Newars had* structured Bandipur Bazar areas community based on various forms and contents of social organisations in the form of institutions-*guthis*. Their close associations were manifested spatially; houses are small and close to each other where people could share various infrastructures.

The presence of strong communal values provides a foundation for facilitating social environment (consisting of various social institutions, education centres, planning policies and activities focussing on heritage conservation) for new generations to work, learn and share the concern and knowledge on such hidden values. The social environment has established a heritage based culture (both tangible and intangible). Their activities and their goals are set in response to the changing mainstream institutional frameworks. This is one of the key characteristics of sustainable development. The local people are managing their resources (natural and artificial) for their future livelihood strategies through participation, commitment,

and equity in well-being. The community has been managing resources by maintaining and simultaneously evolving their social norms that help to retain its values and identity.

As members, all individuals in the Bazar area is associated with *guthis*: The institutions bound the individuals for performing their responsibilities or activities in roles through social norms. The associations are always purposeful, like cleaning water sources, forests that are bound with certain celebration and rituals. The associations and corresponding institutions remind everyone what their responsibilities are and how they must perform accordingly, especially in managing the resources. The social institutions like *guthis* change their values and social norms to newly found values and associated norms. However, the knowledge inherited in the social institutions provides the framework for developing new organisations based on newly found resources. For example, the BECTP used the same organisation framework to carry out different activities, like road pavement, temple reconstruction and rehabilitation of older buildings.

These organisations resemble an integrative functional platform that integrates social norms for different ways of performing and transfers them to individual members to perform in an organisation for a purpose. In conclusion, the internal organisations as a part of community structures have three functions: a social space for communication; an institution to store and inherit values as social norms; a learning centre for associated individuals to form an organisation related to different goals. These functions are keys to sustainability that still confronts the challenge of transferring knowledge across space and time.

### **External Structure**

One of the reasons for Bandipur Bazar's successful interaction with the external stakeholders is its stable patterns of community organisations and the strong social normative contents in their organisational forms. Bandipur Bazar's stronghold on its identity and potentials has facilitated to negotiate with external stakeholders in goal settings, for example, goal settings in BECTP and MTMP.

During the revitalisation stage, Bandipur Bazar was in contact with various external organisations, national and international through Bandipur Bazar Social Development Society (BSDS), an association of Bandipur Bazar people living outside of Bandipur Bazar. The notable external organisations are Nepal Tourism Board (NTB) and Alliance for Ecotourism, who were also the BECTP partners. Bandipur Bazar has established linkage and interconnectedness and learned the mainstream society but at the same time maintaining its

identity. Formation of a community-based association like BSDS plays a crucial role in conveying Bandipur Bazar's values to external agencies like NTB and Alliance for Ecotourism and negotiating in goals settings in projects like BECTP.

The BSDS acts as such nodal point that facilitates selective interactions between Bandipur Bazar and the external agencies. Referring to Bandipur Bazar, a community interacts with other external organisations symbiotically in goal settings based on available resources. The BECTP, as an intermediary project, represents the outcome of concrete goals. It has a strong presence of Bandipur Bazar's identity, its identified resources- education and tourism, and strong participation in negotiating with mainstream external actors on different goals. The BECTP has facilitated the local people to select different measures, for example, heritage conservation. The projects' concrete goals on heritage conservation not only solve their resource problems but retain its identity, values and culture by sustainably managing both development sectors- education and tourism.

### **c) Knowledge Sharing**

In Bandipur Bazar, the disposition of the organisation develops into knowledge that eventually supplements its norms in evaluating different activities for achieving different goals. It seems that the process of knowledge generation and sharing among the concerning internal and external stakeholders influences the interaction for other similar situations across space and time.

### **Internal Structure**

Internally, the community organisations like local user groups and traditional *guthis* have generated, stored, and shared knowledge to the local actors. Such knowledge has guided them to identify their roles for different purposes. Local people have inherited the knowledge of entrepreneurship through their ancestral experiences on the changing resource situation, disposed of through such institutions. The establishment as the trading centre and revitalisation as the touristic hub illustrate their ability and knowledge on entrepreneurship with changing resource conditions. The internal governance structure has facilitated sharing and experiencing knowledge in the form of social norms and values intra and intergeneration. The endogenous governance system has also facilitated the evolution of alternative means in different resource conditions incorporating mainstream knowledge. Such facilitation helps to generate, adapt, and transfer the knowledge on the pattern maintenance of core value; meanwhile managing the resources as per institutional frameworks.

In the case of Bandipur Bazar, there are two strategies associated with knowledge generation and transfer: through traditional institutions like *guthis* and development institutions, like education facilities.

Traditional institutions, like *guthis*, generate and share knowledge in the forms of norms and roles by performing various cultural rituals that are part of their heritage and identity. Despite its relevance to the modern requirements, the rituals bind the participants in some forms of organisational obligations and facilitate contents of various resource-managing goals and means. For example, *Sithi Nakha* is a festival associated with cleaning water resources. The traditional institutions work at spatio-temporal scales. Spatially, they are the space of communication for different participating actors, for example how different people coordinate within an organisation in a festival. Temporally, they facilitate knowledge as norms to coordinate those activities in sequence.

Contemporary social institutions like local youth groups, education, and training facilities, on the one hand, provide knowledge and skills related to contemporary resources, for example, tourism. On the other hand, they supplement the knowledge and experience on different means to manage the resources, for example, knowledge on maintaining the heritage from tourism perspective. The establishment of such training facilities has a symbiotic relationship with the available resource-based learning environment. For example, in Bandipur Bazar, hotel and training facilities not only provide education on hotel entrepreneurship but also provide a learning environment for practical application. Furthermore, development institutions like government agencies can include or address the core values of the community in introducing or implementing any development policies or strategies. Similarly, the development of MTMP has considered inclusion or consideration of heritage conservation, and tourism in transportation facilities, developing various infrastructures or education facilities. The inclusion of the core values and pattern of organisations to achieve different goals make the policies comprehensible to the local people.

The inclusion of local people's knowledge, skills, and experience in setting development goals and developing strategies and measures tends to continue its values and associated organisation patterns. The integrated knowledge- local knowledge and external stakeholders' knowledge supplements the adaptability of the organisation structure to the changing resource scenario in its development policies and agendas. In conclusion, integrated knowledge not only aids in the continuity of the core value but also handovers the norms that regulate the management and allocation of resources. Different forms of sustainability are embedded in the contents of the



integrated knowledge; for example, heritage conservation-based tourism. The knowledge is transferred to the next generation as the shared value and social norms, through social environment and institutions like college and training facilities and social institutions like *Guthi*.

### **External Structure**

Externally, the organisational structure of Bandipur Bazar facilitates the integration of local knowledge and external expertise in terms of actions and regulations for concrete goals. The concreteness of knowledge implementation facilitates the viability of collaboration in resource negotiations with the external environment. For example, BECTP has concrete goals that facilitate knowledge exchange and co-creation fulfilling the two criteria.

One of the objectives of the BECTP was to encourage the local community for spontaneity and participation in the decision-making process concerning the development of their settlement (Joshi & Rajopadhyay, 2007). The local community has perceived the integration of its core value and roles in the intermediary project- BECTP. The project was about conserving their heritage and working through already existing community organisations. The project's condition aims not only at achieving the concrete goals but also at setting up a scenario for their continuity. The BECTP had aimed at capacity building through awareness programmes on three main topics. They are natural and cultural heritage conservation, facilitating training programmes on small project management, and resource mobilisation.

The existing internal organisational structure and values facilitate the exchange of knowledge. The internal governance structure has selective social boundaries that permit a selective exchange of knowledge and organisations forms regardless of externally bound project objectives. For example, the local youth and user groups accepted the knowledge of heritage conservation, and local guide training as a part of BECTP and allied with external institutions on establishing hotel management courses. The alliance was possible because of their cross-cutting concrete goals despite different interpretations for the collaborators. For example, local people perceive heritage conservation as a resource for entrepreneurship; meanwhile, mainstream institutional frameworks perceives it as a goal for the region.

The adaptability of Bandipur Bazar's organisational structure to the changing external scenario is one of the main reasons for the possibility of integration of knowledge on tourism from mainstream institutions. Presumably, Bandipur Bazar as a social system has maintained its pattern of the community organisation through selective integration of external knowledge on

tourism through heritage conservation, through local organisations. Such condition facilitates the broader range of alternatives in the selection of means in response to changing resource scenario, for example, different activities concerning heritage conservation. In conclusion, the case of Bandipur Bazar highlights the knowledge co-creation and sharing through intermediary projects linking the community (values) and the mainstream society (institutional framework). There are two criteria for knowledge integration and transfer: the proper management of the available resources and maintain the core value of the community.

### **5.2.5 Inferences**

The analysis illustrates that Bandipur Bazar has maintained the local values and share them through norms and knowledge to newer generations. The pattern of organisations is intact and has always been responsive to the dynamics of resource condition by evolving different means through entrepreneurship. The responsive characteristics of their organisation forms also facilitate regional cooperation in exchanging resource and knowledge co-creation that contribute to developing regional identity and regional coherence.

#### **a) Cultural Maintenance**

The case of Bandipur Bazar illustrates sustainable development from the planning and methodological perspectives. In planning, sustainability requires coherence in policies and actions irrespective of the top-down or bottom-up approach. For example, BECTP was a local level initiative based on the cultural values (both tangible and intangible heritage) to their resource/potentials (architectural heritage and ecological setting). The BECTP used the instrumental aspects of cultural values in revitalising Bandipur Bazar as a tourist centre. It was a scenario of many sustainable development projects, short term, solution and target-oriented, often connecting only to livelihood strategies and expecting the process to continue. However, Bandipur Bazar was in developing a culture based on tourism and education. Bandipur Bazar was building a social environment that promotes the cultural values that can transcend across newer generations. For example, BECTP's project team and local people have continued to follow up on the promotion of tourism through the concept of cultural landscape(Rajopadhya, 2017).

A community, for example, Bandipur Bazar, may be valued because of its artistic, or cultural associations of the natural and built environment. The integration of mainstream policies and knowledge is comparatively easier if it acknowledges the core value's role in resource management and its existing organisational structure as the space for coordination. For

example, the MTMP has integrated the initiations of cultural heritage conservation for tourism. Such conditions facilitate the continuation of cultural values that also embed newly gained knowledge embedded in different forms and contents of different measures.

Bandipur Bazar further illustrates a possibility of coexistence of different kinds of lifestyle if they shared the common resource potentials, for example, the indigenous Magars and other ethnic groups, who were farmers, and the *Newars*, who were prolific traders. The trading and the tourism have made the resource-based interdependencies possible for the coexistence among neighbouring communities and *Newar* traders. The neighbouring groups continued their farming in the surroundings and provided agricultural products to the *Newars'* hotel entrepreneurship.

The recent developments of rural municipality's policies reflect on its commitment to developing the social environment that facilitates to learn and experience the cultural values. Practically, Bandipur Bazar's social environment consists of various community organisations, education centres, planning policies, and activities focussing on heritage conservation. The environment has facilitated the establishment and iteration of cultural values, through heritage (both tangible and intangible) and environmental conservation. The future generation is in continuous interaction with its heritage and enhancing their acquired skills through social institutions. It is one of the key characteristics of sustainable development, a balanced development covering the broader region and building communal interdependencies (in contrast to economic pursuit-based development). The continuous interaction with cultural value has facilitated local people to internalise the values. From a cultural perspective, if a social organisation of integration continues, individuals keep on learning various elements of cultural value. They may continue to perform in that way.

#### **b) Regional Cooperation**

Regional dynamics have always been a major part of Bandipur Bazar's development, despite its continuous effort on developing livelihood opportunities based on its values, lifestyle, and identity. The external factors had influenced Bandipur Bazar's response to the varying resource conditions, enforcing the condition of interdependencies, resource-wise and knowledge-wise. Most of the resource potentials are externally influenced. For example, according to Iltis (1980), the intra-regional interdependence on India-Tibet trade route, coupled with *Newar's* resourcefulness in terms of knowledge and investment capital in trading, shifted Bandipur Bazar from a hilly rural village to a thriving trade centre (Iltis, 1980; Pia, 2017). The

shift in the subsistence pattern reflects Bandipur Bazar's evolution of community goals and means to the resource, i.e. trade, but retaining its values and social structures. The trading centre became the regional identity of Bandipur Bazar over a longer period. Similar is its approach towards the touristic hub.

From the planning perspective, the process of integration of tourism and educational values in the development policies in Bandipur Bazar is scaling up local projects into long-term strategies for sustainable development. The local people have realised that initiatives have to broaden at a regional level. They have been lobbying for local government interventions, which can develop long-term strategies so that all surrounding communities can coordinate and collaborate for regional development. The remark like 'tourism is a kind of activity, where you cannot work and earn singly' illustrates their commitment. Similarly, the remark '*One has to share the success with the fellow entrepreneur*', shares the tendency of the community towards regional cooperation. From the sustainability perspective, sustainable development covers the sustained interaction between a community and its surrounding in terms of resource access.

Bandipur Bazar is adding value to its landscape, supplementing the regional identity by scaling up of local-level initiatives to transit into mainstream institutional frameworks. Through the concrete goals, the people have consciously discussed and sought the relevance of their activities or decisions on the regional landscape. The local people think of the sustenance of tourism and education initiatives for future generation rather than only thinking them as solutions for their current livelihood opportunities. The case of Bandipur Bazar reflects sustainable development's interpretations by linking its livelihood strategies to future generations through intermediary projects on how they can continue resource management and community organisation, through knowledge generation and sharing. Through the intermediary projects like heritage conservation-based tourism, the case of Bandipur Bazar has interpreted sustainable development spatially in regional dynamics and temporally considering intergeneration transfer.

In conclusion, the case of Bandipur Bazar reflects its contribution to developing that identity. The development of regional identity is a process of transiting the community's identity into the mainstream institutional framework with the resource as their cross-cutting theme. The regional dynamics eventually converges into the formation of that identity.

### 5.3 Hurdal EV, Norway

This section presents Hurdal EV as a case of the typical ecovillage. The section analyses Hurdal EV as a social system in exploring and explaining different phenomena through descriptive narratives, thematic analysis, and their implications on the cultural value maintenance and regional cooperation.



Figure 13. Site Plan of Hurdal EV showing garden area and residential blocks

(Source:- <https://www.hurdalecovillage.no/bolig>)

### 5.3.1 Introduction

Hurdal municipality lies approximately 80 km north of Oslo in Akerhus county, Norway. Hurdal EV It takes just under an hour to drive from Oslo. Many of the residents chose to commute from the Hurdal EV to the workplace in Oslo. Hurdal EV was deliberately founded as an ecovillage (EV) by the members of Kilden økosamfun (Eco-society).

Historically, the site of Hurdal EV was a Gjødning Farm, owned by Hurdal municipality. The Gjødning is located south facing in the southwest position with borders and views of Hurdal EV sjøen (Hurdal EV Sea). Gjødning covers 146 acres of land, of which 40 acres is farmed land (see Figure 12 for a detailed layout of the farm. The green patches refer to the 40 acres of the farmland).

The rest is forest and grazing area. There were altogether 70 houses in 'Housing 1 (Boligtun 1)' which were all sold and 21 condominiums were launched in Housing 2 (Boligtun 2) ("Byggetrinn No2 Okerfly sameie," 2018). The houses were based on the concept of *Aktivhus* (Active house). *Aktivhus* is environmental friendly houses based on three principles: good indoor quality with proper ventilation, good indoor environment with vapour-permeable structure and climate-friendly materials like wood, and energy efficiency using bioenergy and social panels ("Hva er et Aktivhus?," 2018).

The Hurdal EV's municipality had planned to establish the green and sustainable municipality. In August 2012, the Kilden initiatives group rented the Gjødning farm with Hurdal municipality with the plan to establish an ecovillage that would become a part of the future broader sustainable valley ("Bærekraftsdalen Hurdal," 2018; Miller & Torp, 2013).



Figure 14 Map of Hurdal municipality and the Hurdal Ecovillage, Norway. Source: - Westskog, Winther, and Aasen (2018)

### 5.3.2 Method

The method was three-staged. In the first stage, various literature from secondary resources was collected and reviewed. Several kinds of literature were in the Norwegian language in the forms of presentations, websites, and reports. All the Norwegian language literature were translated through 'Google translate' to understand and set a preliminary scene before the visit. Based on the preliminary setting of the scene, the researcher faced some missing links; many had been due to the researcher's lack of Norwegian language. The researcher then developed open-ended questionnaires that consisted of five sections: the establishment of Hurdal EV; the motivation to establish and moving in; different cultural activities taking place in the community's relationship with surroundings, and the future of EV (see Appendix 8).

In the second stage, the researcher visited Hurdal EV. Before the visits, the researcher made phone calls for appointments with some of the key personnel. The researcher stayed in a private house in Hurdal EV from 29 September 2016 to 2 October 2016. The researcher made the reconnaissance observation of the farm, the church area, cafeteria, farmhouses, and the newly built active houses on the day of arrival. From the cafeteria, the researcher got three key personnel to talk about and share information. The researcher also participated in the farms and familiarised through smiling gestures, informal talks and helping on the farm.

Many of the informal conversations were in the form of narratives concerning their decision to move in Hurdal EV; their experiences of living in the houses; the process of establishing the EV and their relationships with local administration and surroundings; and plans of Hurdal EV and Hurdal municipality. Two interviews were recorded, and the other one was written. The informal talks were written as daily reflections (see Appendix 8).

In the third stage, the researcher used narrative logic to review, analyse, and draw conclusions in relation to the EV themes. The information was further verified with other online resources, Hurdal EV web page, Hurdal municipality e-reports, media advertisements, and conference presentations. The information was presented in the chronological order; then analysed in three thematic categories: resource management, community organisation, and knowledge sharing. In the end, the information was analysed how Hurdal EV has kept the distance from the local context to maintain its shared value, but at the same time interacted with the surroundings in the translation process to the mainstream society.

### 5.3.3 Findings and Analysis- Historical Development of Hurdal EV

The development of Hurdal EV as a community was summarised into four stages: Formative Stage (1994-2001), Planning Stage (2002-2009), Design Stage (2009-2013), and Construction and Integration to Mainstream Development (2013- until now).

#### a) Formative Stage (1994-2001)

A group of people from the eastern region of Norway, who wanted to find a suitable place to start an EV, made exploration in the UK, Sweden, and Denmark between 1994 and 1996. The vision was to live the traditional ecological lifestyle; however, with urban facilities and close to employment opportunity centre, like Oslo.

During 1997-1998, Stiftelsen Kilden økosamfunn (eco-society) was established ("Historikk," 2018). The society had 150 adult members. Most of the initiators lived in Oslo and the surroundings. They wanted to establish the future EV town near Oslo, preferably no more than an hour drive from the city centre. Between 1998 and 1999, a group from the society surveyed decades-old farms in Eastern Norway, preferably an agricultural property. The goal was to establish the first EV of Norway and to build approximately 50 houses on the property.

Between 1999 and 2001, the Kilden økosamfunn had three potential properties- a farm in Hobøl (Blixland), a small farm on Sånbruk of Nesodden, and a Prestegård (Gjøding) in Hurdal EV. The most preferred one was the farm in Nesodden. However, the project experienced resistance, both from the municipality and *hyttenaboer* (cabin neighbours). The main reason for the opposition was that the cabin neighbours of the property did not want an expansion (Miller & Torp, 2013). The group also faced resistance in Hobøl.

The remaining choice was Hurdal EV. In 2001, the mayor of Hurdal municipality contacted Kilden initiative about establishing ecovillage. The municipality assumed that it would fit very well at the Gjøding Farm, which the municipality purchased from *Opplysningsvesenets Fond*. The Gjøding Farm was a suitable choice for three reasons. First, there was no resistance and obstruction from the municipality and locals. Second, it was ecologically suitable as per members' aspirations like a good farm, good sunny areas in the forest, and proximity to the lake and river. Third, it had great economic opportunities. It is within an hour travel distance from Oslo. Similarly, Hurdal municipality is also a part of the 'Gardemo region' growth area in the Upper Romerike. The plan made Hurdal EV, a place with good opportunities for establishing future businesses and employment.



## ***Reflection***

The social resistance in the farms of Nesodden and Høbol is an example of the role of surroundings for a settlement establishment, especially in a landscape that has cultural values. The Kilden initiators had focussed mostly on developing internal governance structure, self-sufficiency modality, economic opportunities and living close to nature. Despite its noble intentions, it rarely addressed the aspirations of Nesodden and Høbol. The farms in Nesodden and Høbol are the *hytte* regions where many Norwegians come for hiking and to enjoy the Norwegian outdoor far from the urban facilities and back to their root lifestyle (Eriksen, 1996).

*Hytte* is the Norwegian identity (Eriksen, 1996), and also defines the region's values as the outdoor and nature-oriented lifestyle. Developing a settlement in that geographical location would disturb the natural landscape with permanent built structures and luxurious facilities that do not adhere to living as per *hytte* values. *Hytte* accepts more grounded means and ways of natural living. The Hurdal EV represented an alternative lifestyle, which was not acceptable to the *hytte* people from Oslo.

With such weaker local context and resistances, it was unlikely that the municipalities would accept settlement development. They instead would opt for *hytte* oriented plans and policies in those regions. The case of social resistance illustrates the role of surroundings and values.

Hurdal municipality accepted the proposal due to its future development plans in that area. Hurdal municipality has included the Gjøding farm (the site of Hurdal EV) as a part of its masterplan of a sustainable municipality ("Bærekraftsdalen Hurdal," 2018). One of the members from Kilden initiatives grew up on a farm and had organic agricultural education. It had created a sense of security and a higher possibility of knowledge sharing in the farm's operation at the beginning of the collaboration. There was a common understanding of using the resources in an ecological way between Kilden initiatives and the municipality plan. The conditions provided flexibility for both parties to collaborate and re-regulate some of their visions in line with the municipality's plan of the sustainable valley.

Hurdal EV was not standalone but had offered its shared values in contributing the municipality's visions. In the case of Nesodden and Høbol, the Kilden initiator lacked that connectivity to the local landscape. They considered the ecological aspect as *per se* to surroundings. They did not have concrete goals that comprise both values and regional's resource condition. The modus operandi of the lifestyle of EV and the *hytte* culture was different.

## b) Planning the Regulation Stage (2002-2009)



Figure 15 Site Plan of the garden area showing stores, pig grazing areas, farm, chicken grazing areas, Juice areas, fruit orchards, concert area, lamb's grazing areas, and market (Source: - <https://www.hurdalecovillage.no/grden-1>)

In August 2002, the foundation group entered into the purchase agreement with Hurdal municipality. The group of approximately ten adults (and ten children) established Hurdal EV Økologiske Landsby SA (Hurdal EV Cooperative). The initial inhabitants had to carry the costs of establishing the EV, and subsequent newcomers to the EV had to pay a certain amount to join. The cooperative made an agreement with the municipality about the farm with pending necessary clarifications with affected authorities, mainly the county municipality (Miller & Torp, 2013).

In 2001, the collaboration cooperated with Gaia architects and initiated the process of land regulation. The two prepared the first rough concept that illustrated their vision. The group used it to communicate with the municipality, county, housing bank, and other stakeholders. With some support from the *Husbank* (Housing Bank), it became possible to carry out a comprehensive analysis report based on the user-involvement process. The research was

carried out on the farm's suitability, history, natural conditions, geology, climate, and more (Miller & Torp, 2013).

In 2003, the group faced challenges in the Akerhus County administration, due to a conflict over the protection of significant cultural heritage sites. The department of archaeology believed that a development in the selected farm would destroy the green backdrop of the church despite the team's assurance of a gentle development with small greenhouses and green gardens. However, a storm swept across Hurdal EV Lake and hit the forest in the land behind the church destroying the spruce trees. The cooperative proposed to build new houses close to the farm. The county municipality demanded that the construction should take few hundred metres further only after archaeological investigations. The archaeological investigation was carried out for over a year (Miller & Torp, 2013; Torp, 2016).

The actual construction started in 2003 when the members built temporary houses with straw and solid wood and moved to the farm by themselves. Nevertheless, it was costly and not up to the quality. Between 2003 and 2006, much of the attention was on the land use plan. The self-built houses were also rudimentary and were of little acceptance from the neighbouring settlements (Torp, 2016)

In 2004, the news was broadcasted on NRK, TV2, and published in magazines like Dagbladet, Aftenposten, Romerikes Blad, weekly magazines and Østlands sendingen (trade magazines), the Eastland mission, P2 and others in the title 'Environmental thinking and ecology in the wind' (Miller & Torp, 2013). Media was one of the major stakeholders for the project to reach to more stakeholders for collaborations.

In 2007, the land use plan was proposed with engineering road, infrastructure, natural drainage treatment plants, and ecological houses. The team followed a self-building and completion approach for construction and ownership of the buildings (Miller & Torp, 2013).

The Housing Bank gave small contributions for conducting user involvement process in the beginning through a project called 'Boliger med noeattåt' (Housing with something) (Miller & Torp, 2013). However, the Hurdal EV lacked the necessary economic and legal expertise. They, therefore, need to collaborate with the developer who would carry the financial risk and legal risks. Self-building required a lot from individuals in terms of expertise and time (Torp, 2016). In 2007, the housing bank recommended cooperating with a home *byggelag* (housing blocks) in the region. Furthermore, the team chose a new strategy towards using ready-made modules and individual ownership of properties and houses.

## ***Reflection***

In Hurdal EV, planning schemes kept on changing because of the external factors, especially the public authorities, like the department of archaeology, county and municipality. Such factors come in the form of political and economic institutional frameworks. Hurdal EV could not cope with the necessities, especially in terms of finance and expertise. Such circumstances require the pooling of experts and collaborators as per knowledge demands in the development process.

Hurdal EV being a small community, decided to collaborate with different stakeholders, who can deal with such planning uncertainties. As such, the EV established the cooperative. Due to The cooperative model, on the one hand, brought equity among the members, resource ownership and decision making process but also facilitated the collaboration with potential new stakeholders. In Hurdal EV, there were at least three groups of stakeholders- government authorities, for example, Hurdal Municipality, Oslo, and Akerhus county municipality; financial investors, for example, Husbank, and Cultura; Gaia Architects as technical experts. The collaboration conceived the proposal of 'Special area Økolandsby' for Hurdal EV with features such as housing, nutrition, culture, and agriculture. The values for each feature represent different stakeholders' aspirations. The land-use plan and technology and materials in houses highlight the interest of archaeology, Hurdal municipality, and Gaia architects. A user participatory process reflects the interest of the Housing Bank.

### **c) Designing Stage (2009-2013)**

In 2009, the overall zoning plan was approved. In the same year, the Aktivhus company limited was established. It was partly the result of the experience gained by Gaia Architects in Hurdal EV for standardised houses that could be produced more professionally than self-made ("Hva er et Aktivhus?," 2018). Gaia also promoted eco-friendly houses and was motivated to offer an alternative to passive houses ("Hva er et Aktivhus?," 2018; Miller & Torp, 2013). The Aktivhus company limited designed a module-based house under a concept referred to as 'shelter' ("Hva er et Aktivhus?," 2018)

In 2010, the project made further adjustments with building plan to attract loans. The team met various local real estate agents concerning the housing market of the Upper Romerike region, for example, DNB property. In 2012, the project collaboration even revised development budget with more quality assurances; however, the final funding was not successful.

The Hurdal EV tried to collaborate with several developers in its search for the developer. In 2012, the Vitrina AS (company limited- later Filago), which was one of the newly started property development companies took over financial responsibility for the project (Westskog, Winther, & Aasen, 2018).

The partnership reflects a shift from a cooperative model of mutual sharing to the developers' model with more focus on financial recovery than communal ownership feeling. Sustainability becomes a catchphrase for financial recovery. Some of the respondents say that they were relieved. Some were disappointed for losing their ownership to the developer, which is against the value of the ecovillage concept.

In 2013, the whole project was revised focussing more on the EV town development concept and economic sustainability. *Aktivhus Company limited* was further strengthened with new partners. The sheltered house model is further revised to balance the ideals of ecological architecture with national regulations and available support schemes (Westskog et al., 2018). Based on the new housing models, the Housing Bank also promised new Grunnlån. New agreements were renegotiated with Hurdal municipality with the engagement of Real Estate Agent. A new prospectus was prepared focussing more on selling houses. Since 2013, new construction of houses has started.

### ***Reflection***

This stage highlights the role of financial and technical collaborators for making changes in plans and designs of the houses. Despite Hurdal EV's execution of actions based on the shared value of ecological lifestyle, external conditions like government policies, financial and technical regulations had always infiltrated their goals. Hurdal EV could not limit their involvement to consultations only.

For Hurdal EV, the financial demand pushed for project changes for several years to prepare a financially sustainable project. The financial soundness could trigger necessary building loans, investor capital, and necessary collateral for a construction loan from the bank. The availability of resource with external collaborators shifted Hurdal EV's focus on financial sustainability at all level by preparing a proper business plan and realistic budgets. Hurdal EV focussed on the ready-made house rather than self-built houses. It also developed 150 housing units more than planned because of the need to share the start-up costs linked to road and infrastructures.

The resource condition also triggered the adaptation of the organisation of the group executing the project. One of the members of the cooperative, a building engineer, and two Gaia architects

established a private company called Aktivhus AS because of the absence of manufacturers' willingness to build houses in the way the project had dreamt. The architects and other professionals had their expertise in developing the technological and social aspect. However, they had limited understanding, experience and realism on both practical and economic realities associated with such a complex project, both government administration and financial aspect. The involvement of public authorities eased governmental obligations (Hurdal municipality and housing associations), and financial investors (like housing companies and banks) eased investments. Changing the ownership of the project from a cooperative organisation to an external developer, *Filago Company limited*, eased the loan. Hurdal EV cooperative organisation was not successful in getting loans because of its lack of ambition for investment recovery.

#### **d) Further Development (2013-till now)**

The construction of the houses started in 2013. The Aktivhus company limited then became an architecture wing of Filago AS. The Filago company limited had to balance the ideals of ecological architecture (e.g. natural materials, natural ventilation, healthy indoor climate and energy-efficient construction) with national regulations and available support schemes (Westskog et al., 2018). For example, the company got support from Enova. Enova is owned by the Ministry of Petroleum and Energy and was established in 2001 to contribute to reducing greenhouse gas emissions and transitioning to climate-friendly energy consumption and sustainable energy production. It installed solar panels on the roofs to meeting energy requirements specified in the Regulations on technical Requirements for Building Works, under the Planning and Building Act-TEK 10 and zero-emission requirements (Westskog et al., 2018). Some of the houses were equipped with smart technologies to regulate ventilation and indoor climate and install monitoring equipment in some of the buildings to enhance research ("Hva er et Aktivhus?," 2018; Westskog et al., 2018).

Hurdal EV's target is to move 400 to 500 people since its construction had started. The people's number was a part of the municipality's development plan and indicated the need for the financial commitment. When the first housing neighbourhood was opened, all 70 homes in Housing block one was sold ("Et sted med tid til livet," 2018).

Since the construction of houses, Filago AS has focussed on other sectors as well. Hurdal EV has shared agriculture as a cooperative since 2016. The share of the farm is open to anyone interested, members of Hurdal EV communities, and for rest of Hurdal EV, Upper Romerike

and Oslo. The shareholders could retrieve vegetables even directly from the farm. The shareholder has to work 10 hours per year per unit holder distributed at 3-4 voluntary works like sow, plant, weed, harvest, make coffee, make soup, and bake cake. Members receive the work schedule regularly sent in autumn by messages on e-mail and Face book. The share is as much vegetable as one adult eats ("Andelslandbruk," 2018).

Hurdal EV has Organic Næringsssenter (Industrial centre) to facilitate jobs close to nearby people ("Et sted med tid til livet," 2018). It is called Fremtidssmia Ecological Næringsssenter AS-FON (Future Smia Ecological Industrial Centre) and is a limited company. It is independent of Hurdal EV cooperative; however, operates from the same core value, i.e. ecological living ("Fremtidssmia-ecological Næringsssenter," 2018). It has been renting space of 2,600 sq. metres to local businesses. The first business was opened in January 2016- kitchen garden cafe, bakery, and general store. The kitchen garden opened in January 2016 with the motto of 'honest food of organic ingredients, many of them local'. The kitchen garden also consists of a local bakery with a wood-burning oven that can roast up to 300 loaves of bread daily. There is also a sling room for Hurdal EV beekeepers, green doctor's office, offices, and treatment rooms for villager therapists. The multipurpose hall has many dance and exercise classes. It facilitates larger events such as courses or lectures ("Et sted med tid til livet," 2018). Some people also use the space to combine work in Oslo with Home office a few days a week ("Fremtidssmia-ecological Næringsssenter," 2018).

Hurdal EV's Stiftelsen (English- Foundation) is a non-profit foundation, established in spring 2018. It aims at realising concrete projects that promote social community in the village and a model for the transition to a more sustainable society. The foundation manages and develops property Gjøding farm and parts of the areas FON("Gjøding gård," 2018).

The Hurdal EV has also contributed to the municipality's development plans. A unanimous council has adopted the vision 'Plus Society 2025', which outlines a future where Hurdal municipality is carbon neutral or better by 2025. Hurdal municipality is now referred to as 'bærekraftsdalen' or 'the sustainable valley'. Some of the practices in Hurdal EV are scaled up in the municipality project. The municipality has adopted *Aktivhus*' for high rise buildings and signature buildings. The municipality has plans for 400 'Plus-Hytter' or cabins- that is climate neutral in the manufacture, transport, and construction- to boost its cultural tourism. The municipality also has plans on 'Treprosjektet' (English- from forest to a house) to use process timber from the local forest and 'Hurdal EVsmat' (English- Hurdal EV lunch) to promote and sell local food in local outlets ("Bærekraftsdalen Hurdal," 2018).

## ***Reflection***

This stage reflects on the challenge created by a change in resource conditions and governmental polity, which exerts actions in response. Consequently, Hurdal EV made changes in its organisational structure to respond to the governmental policies and financial and technological frameworks. Hurdal EV had a flexible organisational structure and decision-making process that responded to external exigencies like a governmental procedure for building by-laws, external funding sources, and regional identity of the sustainable valley.

In practice, Hurdal EV highlights three types of organisational forms: Foundation, Company limited, and cooperative. The common organisational form is a cooperative organisation, but the varying political, resource conditions and limited availability of means (knowledge and resource) prompted other forms as well. Different organisational forms represent an adaptation for holding the community and attracting the future members for its sustainability, economically and socially.

The collaboration between Hurdal EV and municipality also illustrates that Hurdal EV integrates into mainstream society by participating in political and economic institutional frameworks. Hurdal EV had set goals based on the resource conditions and in return, executed different actions that provided feedbacks to regional levels through small initiatives. For example, the projects in Hurdal EV have scaled up to feedback the regional level policies of Hurdal municipality's 'sustainable valley' project.

From a pragmatic point of view, Hurdal EV values facilitate the development of intermediary projects that facilitated interactions between Hurdal EVs and the regional actors in the social, political, and economic arena. It is contrasting to the typical EVs character, which is eco-centric or self-regenerating but does not participate in the institutional frameworks. Hurdal EV has contributed to the sustainable valley project, through its shared value and associated activities. Hurdal EV cooperative has handed over the responsibility to external *Filago AS* to communicate and interact with regional actors in the political and economic arena. The shift of the ownership deviates from Hurdal EV's values of cooperative ownership. It has resulted in strong dissatisfaction and suspicion among many EV settlers.

Hurdal EV has responded to the challenge to sustain the community after establishment, externally to continue interaction with the surroundings; internally to continue motivation of the members to participate communally. In return, Hurdal EV has selected different



intermediary activities that facilitate retaining its shared value of ecological living and achieving regional goals within the institutional frameworks.

### **5.3.4 Findings and Analysis- Based on EV themes**

The analysis of critical turning points in the historical development of Hurdal EV highlights the focus on aligning of individual visions to the shared values rather than on developing individual goals specific activities. Hurdal EV has built networks and collaborations to interact with the regional actors but has maintained its shared value.

Hurdal EV can be characterised from the internal and external aspects. Internally, Hurdal EV has developed a governance structure that helps to create, maintain value on ecological living through different community organisations. Externally, interact with surrounding to contribute the regional identity in sustainable development through themes of interactions: resource management, community organisation, and knowledge sharing.

#### **a) Resource Management**

Hurdal EV's central idea is to have a community thrived by living close to nature but with modern facilities. Since the initiation, resource-wise, Hurdal EV has pooled resources in three focus areas: farm, residences, and local business activities. The housing is added with other community and economic facilities.

#### **Internal Structure**

Internally, Hurdal EV has highlighted the cooperation-based resource management to aid financial constraints. Financially, the Kilden initiatives received a contribution from individuals' pockets since its start-up. Each member paid monthly joint expenses for daily operations, consultancy fees, and other expenses. Many professionals also helped and contributed ideally without any special remuneration because of the project's non-profit orientation (Miller & Torp, 2013).

The later stages of Hurdal EV highlight various modes of resource management based on the purpose and kinds of resources. The regulatory plan 'Special area-Økolandsby' featured the use of natural and material resources sustainably in EV's three areas: farm, housing, and local business.

The farm's goals were to develop new, sustainable ways of producing and consuming food. Hurdal EV had cooperative farming, in which the residents as consumers and farmers take responsibility for food production and consumption. The actions reflect a developing culture

of consuming products sustainably. Hurdal EV assured the organic nature and quality of the food because of the direct involvement of customers as cooperative members. Hurdal EV cultivated seasonal vegetables to keep soil layer permanent by avoiding ploughing the soil and adding nutrients artificially. As such, the top layer remains the compost layer of the previous harvest.

Hurdal EV has promoted local production, entrepreneurship and branding. For example, Hurdal EV Økpfukt (eco-juice) that produced and processed locally produced fruit and berries including juice, sides, syrup, and gløgg (mulled wine in English) ("Gjøding gård," 2018). The production included animal husbandries like pig and hen production.

Hurdal EV has promoted housings with traditional technologies and materials to maintain the aesthetics and keep it climate-friendly but upgrade them with modern facilities (See Figure....). The basic principle is to reduce the cost and energy for maintaining the indoor climate through the critical use of materials, mechanical ventilation system, and a lot of processed



building materials like plaster, concrete, and aluminium- the concept of *Aktivhus* (Sheltered house). It refers to the selection of different innovative means based on the local values of using locally available materials and technology. Financially, it seems that innovation was a business strategy with realistic goal settings.

Hurdal EV also had an ecological industrial or business centre to create a closer link between the living and working environment for the residents. It can contribute to a higher level of self-sufficiency of goods and services. The centre has a foundation that facilitates enterprise initiatives based on organic farms and other sustainable business operations with realistic goals. The foundation provided the infrastructure to suit the sustainable initiatives like horticulture, bakery, and organic cafe.

Hurdal EV emphasises the relationship between production, consumption, and recovery of resources. It relates several initiatives and activities to the use of renewable sources for the production and recovery of resources. However, it is silent on the consumption pattern and how it allocates the resource based on purposes and goals.

## **External Structure**

Hurdal EV has opened its social boundaries to the regional influences, i.e. the municipality and other regional and national stakeholders. Despite its focus on community living in an ecological landscape, the settlers were reluctant to isolate from economic connectivity and located the site near Oslo. Furthermore, Hurdal municipality has a development plan with the Gjøding farm as one of the parts of the municipality level development. The EV is interacting with the municipality as a part for the whole system in institutional frameworks-political and economical.

At the regional level, Hurdal EV has focused on pooling and recovering the resources, and eventually, sharing knowledge about resource management. Hurdal EV has played the facilitator role even to the external stakeholders associated with development plans in different strategic areas: farm, housing development, business, and community centre. In the farm, the agriculture cooperative covered customers beyond the EV boundaries to other regional customers. Hurdal EV promoted not only organic farming and its products, but also facilitated professional competence and knowledge on sustainable consumption pattern ("Andelslandbruk," 2018).

Hurdal EV has promoted local housing by improvising the use of local materials and technology, with modern facilities. Hurdal EV has patented *Aktivhus*-innovation on the use of local materials, wood, and technology of natural ventilation through piping effect-with collaboration with various experts and resource people. Hurdal EV shared the concept for the sustainable valley project in developing housings and other buildings in Hurdal municipality.

Hurdal EV has also aimed at reducing commutation by promoting its local products in the region through its business centre. Hurdal EV created a local market for local organic products. However, the idea of overproduction is the logical consequences of entering the region and its economy, and a competitive marketplace as a rebound effect. The promotion instigates more consumption than needed- a question to its sustainability.

Hurdal EV's motive of the business centre is to facilitate producer-consumer collaboration in any products. In such a scenario, the producer can receive information on the product-demands and thus avoid overproduction. The consumer can eventually buy the products as per sustainability information.

### **b) Community Organisation**

The Hurdal EV's idea of communal life in an ecological way is supplemented with an idea of equal opportunity in the decision-making process and resource allocation. The Kilden initiative started with a cooperative organisational model for equity. However, along with the varying conditions, Hurdal EV has kept on adopting different forms of organisations (foundation and company limited), internally in response to the external resource and policy conditions and goals.

### **Internal Structure**

Hurdal EV has adopted different organisational forms depending on the decision-making process and management of resources, internally. Hurdal EV has three kinds of organisation forms: Stiftelse (Foundation), Samvirke-SA (Cooperative), and Akselskap-AS (Company Limited); depending upon the patterns and goals of resource management. The cooperative was the most logical choice among the foundation, and the company limited, like in most of the EVs due to equity and non-profit motivation.

Hurdal EV has cooperative for resource allocation, for example, shared agriculture. The cooperative is a practical organisational if the resources are scarce or precious. The form is also practical for non-profit oriented goals, equal access to resources, and sharing demands. Hurdal EV had a foundation, like Gjødning Gård ev Bolgt, for promoting innovative and environment-friendly concrete projects. The foundation also transferred knowledge in ecological and sustainable lifestyle to the society, and non-profit oriented. Hurdal EV had Fremtidssmia Økologisk Næringscenter as a company limited to promote entrepreneurship. It provided space, platform, and infrastructure to profit motive local entrepreneurship.

Three different kinds of organisational forms have three different purposes in terms of resource management. Cooperative focuses on equity in the allocation of resources; the foundation focuses on developing ways to invest and harness the resource; a company limited focuses on activities that allow recovery of investment. The choice of organisational forms depends upon the purpose that on the one hand facilitates appropriate measures and actions and on the other hand, maintains its core value.

All the individuals belonged to at least one of the many groups initiated the ecovillagers, and were by default the part of the residents' association, to which many contributed on a voluntary basis. However, there is still a mismatch between expectations regarding decision making calling for and *Aktivhus* more independence, while *Filago* and *Aktivhus* retain major control to

ensure the project's viability. The *Filago* still owns the farm. As such, there is still a principle conflict between the residents' associations and the developer.

### **External Structure**

It was hard for Hurdal EV to sustain in isolation because of lack of resources and expertise. One of the reasons for preference to cooperative in most of the international ecovillages is its flexibility for collaborations with external factors. The foundation organisational form has a self-owning juridical entity that would isolate projects from the mainstream policy. The company limited is profit-motivated with resource recovery demand. The feasible scenario would be an organisational form flexible enough to incorporate external stakeholders for attracting investments and expertise. Nevertheless, the collaboration needs to respect the EV's communal ownership.

Hurdal EV has two kinds of external stakeholders: planning and financial. Planning stakeholders are experts from different strategic areas of settlement development and collaborate as consultants: housing, agriculture, industry, and culture. Some of the key planning stakeholders for Hurdal EV are the Housing bank, the Housing blocks, and Gaia architects. Similarly, some of the key financial investors are the Housing Bank, the *Cultura* Bank, and *Vitrina* company limited. In Hurdal EV, the principle of equality had not worked optimally in practice because of limited resources to pay for the necessary work and knowledge to do it themselves. The cooperative form was appropriate for the initial collaborations to retain its values and identity, but was limited while dealing with the institutional frameworks of the mainstream-political and economical. The ownership of the project was handed over from Hurdal EV cooperative to a company limited *Filago*. The *Filago* company limited owned the farm.

### **c) Knowledge Generation and Sharing**

Hurdal EV has facilitated innovations to generate knowledge and then share through collaborations and other communication spaces. The knowledge generation and sharing transcend across generations and the surroundings to maintain their values internally and a strong basis for negotiating in setting the goals in resource exchange externally.

### **Internal Structure**

Internally, Hurdal EV has shared its ideology, information, and experience in the community building process in three ways: collaboration, foundation, and publishing media.

Collaboration brings knowledge and expertise together, along with investments. For example, Hurdal EV's community-supported agricultural scheme (CSA) agriculture ensured knowledge dissemination on sustainable production and consumption of food. The customer could help the farmer, and at the same time, could learn about food production-assuring organic quality. A member could share as much vegetable as one adult eats and pays registration charge and then remunerations accordingly. The members also contributed to voluntary labour works, *Dugnad*. The cooperative model eased access to professional competence and knowledge exchange between the producer and the consumer.

In Hurdal EV's Cooperative, there are various means of knowledge exchange through focus groups: compost group, permaculture, and herb group, conservation, and storage group, Edimental (Edible-Ornamental put together by Stephen Barstow which means beautiful vegetables) group, berries group, sign and joinery group, and *Gilde* (organisation) group. Hurdal EV held annual meetings and programs for tasting new products. Furthermore, the cooperative also published various recipes based on local products, and even brands the local products.

The foundation facilitated the projects on social community, green business development and arenas for recreational activities, quality of life, and learning that could generate knowledge on different practices and activities. The foundation also facilitated industry visits for knowledge and skills in ecology and sustainable lifestyles. Members from Hurdal EV published regular articles and information on various



Figure 17. A usual gathering among the residents of Hurdal EV with people of different ages

innovations, projects, and activities related to a sustainable lifestyle, organic farming, and buildings.

### **External Structure**

Externally, the process of knowledge sharing in Hurdal EV highlights two phases: before and after the establishment of Hurdal EV. At the initiation stage, the Kilden group was linked to

broader networks resource-wise and knowledge-wise, for example, Findhorn EV (Miller & Torp, 2013). In Norway, many associations and organisations were working directly and indirectly on basic concepts of the ecovillage movement. There was a great potential for the initiative to establish mutual collaboration, significantly with the Housing bank and Cultura Bank (financial aspects), HOBBL (housing associations-for property development and infrastructures), and Gaia Architects (designing houses and settlements). However, Hurdal EV confronted the challenge to identify the right stakeholders for the process that would continue beyond the project phase.

Hurdal EV has triggered the momentum on ecological living to other geographical locations by disseminating knowledge and experience gained during the process. The *Filago* consisted of technical and financial stakeholders, who had worked together during the whole process, as an expert for sustainable housing. The company limited aimed at providing services and knowledge in developing Økotun (Eco-residential neighbourhood), Øko-grend (Eco-residential neighbourhood with associated facilities for business and culture), and Økolandsby (Miller & Torp, 2013).

### **5.3.5 Inferences**

The analysis illustrates that Hurdal EV has emphasised the transition to mainstream society as a key to its survival. Nevertheless, it has ensured retaining its values to be distinct from other conventional societies. The collaboration attributes of Hurdal EV has contributed to responding to resource change conditions within the mainstream political and economic, institutional frameworks. This section presents how Hurdal EV sets its value as the first Norwegian EV and meanwhile, maintain its identity in contributing the regional identity in the *sustainable valley* project.

#### *5.3.5.1 Cultural Value Maintenance*

The Kilden initiators have promoted and branded Hurdal EV as the first EV of Norway. However, the primary focus was to have the community living close to nature, and EV concept was the most appropriate approach to conceive the project. Community living was the latent value expressed in designs of housing and settlements in Hurdal EV that shared Hurdal municipality's vision, policies and cultural lifestyle. The Kilden initiators have differences with the local contexts resulting resistance, for example in Nesodden.

Hurdal EV's collaboration with various stakeholders, especially Gaia architects and Hurdal municipality not only correlates the value to local context and policies but also orders the practices and actions according to the mainstream institutional frameworks.

The latter are the regulatory mechanisms that allow the social ordering of the value-based practices and activities as per the objective conditions of the mainstream frameworks. Individuals have internalised the values in terms of morals, norms, and customs as a socialisation process. The regulatory mechanisms help to order the value inspired activities and practices within the EV.

In Hurdal EV, there were different organisation forms for individuals to participate, and internalise the value in the contents of norms, customs, and practices. The organisations are not only purposeful but a common platform to communicate and learn; for example, agriculture cooperative, and foundation at an ecological business centre that held values of ecological lifestyle.

Different organisation forms in Hurdal EV also illustrates the adaptiveness of the structures that connect individuals to common shared values and lifestyle and also interact with the mainstream society. However, the Hurdal EV has confronted the challenge to maintain its value after being lenient in interacting with mainstream society. The value did not necessarily alienate it with the mainstream society. Nevertheless, Hurdal EV has higher chances of losing its identity due to bigger influences from the regional actors rather than another way round. The regional policy of the sustainable valley was a dominating factor in ordering the EV's activities and practices rather than another way round. For example, the concept of the *Aktivhus* as a ready-made model was the result due to the planning restrictions, and the municipality's aspiration of housing development in the area in comparison to the initiator's values of ecological living.

The embedding of the value in the culture provides the stability of the EV and maintain its value defined identity. The internal governance structures occupied by purposeful organisations within the EV hold the customs and normative culture. The structures are communicative- the individuals would continue learning, internalising and performing elements and actions of the cultural values.

The EV and its core values would continue as long as the social structures continue providing the platform to act and express their solidarity towards the values. Hurdal EV has brought all individuals to organise and integrate referring to local traditions and culture; for example, in



the form of *Dugnad*, to volunteer in various groups, or to arrange festivals like sustainable days and other cultural activities.

In practice, the Hurdal EV has not limited the notion of cultural values to symbolic spatial components but transmits or reproduces the culture in the future. The social structures can serve as the space for generation, exchange, learning, and transfer of cultural values through the socialisation process. However, different individuals play different roles depending on the kinds of organisations, purposes, and values. The Hurdal EV has interacted with the mainstream society by setting goals and adapting practices in the backdrop of resource condition and the mainstream policy conditions; however, has maintained its identity by selecting the value-based means to achieve them.

#### 5.3.5.1 Regional Cooperation

EVs are still small-scale, locally controlled activities using an experimental approach in resource management, community organisation, and ultimately knowledge sharing. Theoretically, they referred to as an alternative way of living. However, it seems that integration into mainstream society and development for an EV currently is a necessity rather than innovative and practical considerations. The Hurdal EV shows that actual integration in mainstream development is possible, practical, and technologically innovative. In Hurdal EV, one of the essential criteria is to align the cultural values in response to the regional policies and resource conditions through the intermediary projects, for example, *Aktivhus* and business centres. The Hurdal EV's translation process in the mainstream is a continuous process based on dialogue, negotiations and most importantly respect for each other's values and visions.

Despite the municipality's and the Kilden initiators' common vision of the development, in the initial stage, the relationship with the neighbouring communities got distanced. The concept of straw bale houses and the EV's rudimentary lifestyle triggered perceptions that were often associated with impurity and social danger (Torp, 2016; Westskog et al., 2018). Nevertheless, there was more admiration to and for the Hurdal EV, and in some cases, even a sense of inferiority vis-a-vis the ecovillagers (Westskog et al., 2018). The transformation process mainly started with the EV communities' acceptance of local context and values, for example, ready-made houses with modern facilities in place of self-made experimental houses resembling traditional ecological architecture in Hurdal EV (Torp, 2016; Westskog et al., 2018). The ready-made houses are not completely ultra-modern houses, but still, reflect

traditional aesthetics with the use of timber as the building material and natural ventilation through traditional piping effect. The houses have maintained their vision of ecological living. The modifications influenced the perceptions of not only investors but also of local people in the neighbouring settlements.

Hurdal EV has moved closer to mainstream society in demonstrating how to live a sustainable life comfortably by participating in the institutional frameworks. The intentions of *Aktivhus* and *Filago* to influence mainstream society and to be a part of lifestyle movement resembling Hurdal EVs reflects the regional level widening of the EV concept.

Hurdal EV has adopted a more general concept of values that constitutes pragmatic and attractive, sustainable alternatives to mainstream society. The intermediary projects are more generalised by mixing EV's values and mainstream society's policy in terms of sustainability, comfort, and aesthetics that are widely shared and less radical. Furthermore, the surrounding communities have also changed their perceptions with their increasing participation in various activities like agriculture cooperative. They have become more attentive to the Hurdal EV's values and practices (Torp, 2016). The Hurdal EV highlights that EV is not an isolation concept but is practical and can integrate into the mainstream society.

There is also a danger of losing Hurdal EV's identity of sustainable living. Even though Hurdal EV has increased interaction with the mainstream society, it has still maintained a distance between the community and the surrounding. In conclusion, the integration towards the mainstream society regionally illustrates the evolution of the EV concept through revisions and adapting to the local context and institutional frameworks. The bridging steps taken by Hurdal EV has enabled them to earn acceptance for their values and practices from mainstream society. Even though the steps taken were of smaller scale, they have been streamlined into a top-down process of the municipality's regulatory frameworks (Westskog et al., 2018). Pragmatically, Hurdal EV has developed bridging projects where its values and mainstream society's objectives overlap and are manifested through concrete goals. The bridging projects have not only maintained the community identity but has also fostered the social change in the surrounding that EV concept intends to as an alternative sustainable lifestyle.

## 5.4 Jhong, Mustang, Nepal

The overall aim of this section is to analyse Jhong as a case of the traditional community from three EV themes, both internally and externally. The following section assesses Jhong's survival for centuries in a harsh resource-scarce environment. The section also considers the linkage to cultural value maintenance and regional cooperation.



Figure 18 Jhong's landscape highlighting barren land

### 5.4.1 Introduction

Jhong is a historic village that currently lies in the Lower Mustang region of Annapurna Conservation Area (ACA) in Nepal. It is a part of the high Himalayan regions with scarce resources like fuelwood and harsh climatic conditions for agriculture farming.

Topographically, Jhong lies on a hillock of slate, isolated by the river valley, erosion gulleys and ravines. The village looks defensive with one main entrance marked by *Chhorten* (a Tibetan shrine) and has a castle hill. From the castle hill, one can oversee the Kali Gandaki valley with its trade and pilgrimage routes to the south of the village *Syang* (where now lies the Jomsom airport), and the road from Manang through Thorug-La pass. The total number of households currently in Jhong is 48.

The primary livelihood activities are still agriculture and livestock. Jhong is isolated from the tourist-pilgrimage and trekking routes. Many youths are abroad or in cities like Pokhara and Kathmandu for employment and education opportunities. Recent developments have seen the dynamics of the external setting, like socio-economic and political changes.

Information from literature reviews on surrounding areas, like Kagbeni, and archaeological studies carried out in the caves around Khinga, Jharkot and Jhong have revealed its historical existence (Seeber, 1994). With such historical longevity with resource-based governance system, Jhong presents a strong case of sustainability on how grass-root activities are implemented through traditions, and how new interventions are contextualised according to the local values.

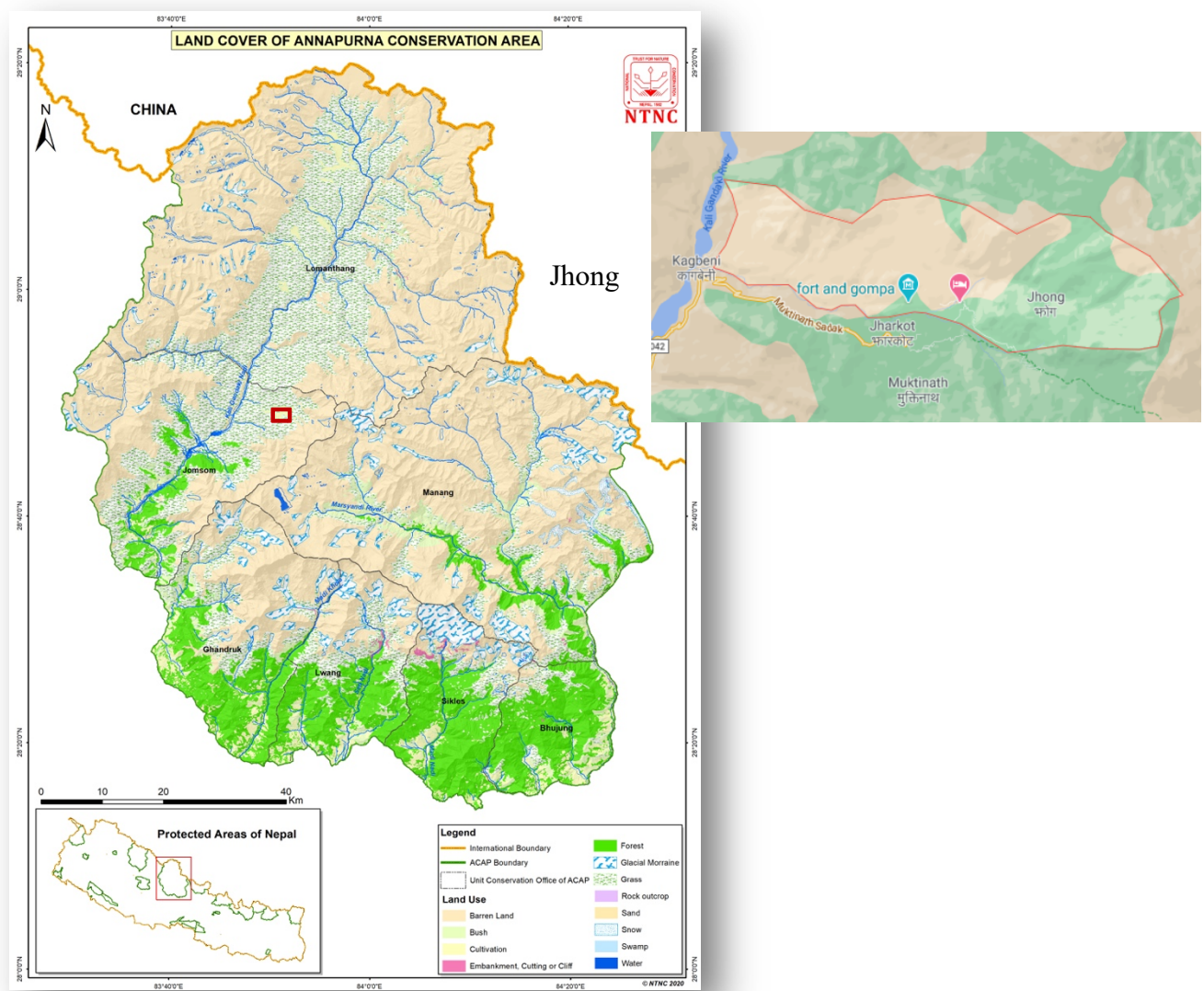


Figure 19 Map of Annapurna Conservation Area (ACA) with Jhong



## 5.4.2 Methods

The analysis of Jhong embraces two-folded approach. First, the Jhong's probable origin by establishing the possible motives and preferences for a particular site was studied. Dispositions of various practices, and traditions, especially in resource management, through narratives based on local perceptions of practices and strategies and other available literature. Second, Jhong's relation to the surrounding region in resources sharing was studied. The narratives were interpreted through the interactive themes: resource management (RM), community organisation (CO), and knowledge sharing (KS).

The first findings were based on the historical development of Jhong as a settlement. The study utilised various literature related to the nearby settlement, Kagbeni because there were limited literature specific to Jhong. The assumption was on their similarities in physical land use and management systems, socio-cultural attributes and their close socio-cultural links (Ramble, 2007;



Figure 20. Participating workshop at Kagbeni on local entrepreneurship at Lower mustang regions including

Ramble & Vinding, 1987; Seeber, 1994; Thakali, 2012). The researcher related the historical development of the Mustang region to Jhong's development. The focus was on social interactions that are prevailing in Jhong as cultural practices on resource management, rather than to verify and detail the historical findings-for example forest management. The semi-structured interviews with local actors were helpful to review such social interactions. The researcher visited Jhong as a student and collected narratives from the local actors on their traditional practices. Various practices about the management of natural resources like firewood collection and forestations, water irrigation system, agriculture, and grazing areas were observed and documented (see Appendixes 9 and 11). The assumption was that the local actors partly perceive their cultural landscape through continuous dispositions of their practices.

The second findings were thematic analysis of the narratives collected from the residents on their perceptions on today's practices implemented by the government officials and NGOs

(Non-Government Organisations) based on three EV categories. It was difficult to conduct participant observation in Jhong because of its exclusive nature. However, the researcher established a good relationship with a local family, which allowed the researcher to observe the lifestyle of a household in Jhong. The researcher analysed the village's organisational structure and institutions that govern the decision-making process. The information gathered was organised, analysed, and triangulated with open-ended interviews with external stakeholders like government officials, and through the workshop held at Kagbeni. The workshop was organised to understand the resource potential in the Lower Mustang region (see Appendix 12).

### **5.4.3 Findings and Analysis- Historical Development of Jhong**

Based on the political changes and the phase-wise development illustrated by Thakali (2012), there are four phases of Jhong's historical development:

a) Formative Stage- Development of Village Autonomy in the Management of Resources- before 1950

Several studies (Ramble, 2007; Ramble & Vinding, 1987; Seeber, 1994; Thakali, 2012) on Mustang have illustrated the long-existing conflict between various regional powers- Ladakh, Jumla, and Tibet. The region was a major transit for the salt-grain trade in the Trans-Himalayan region until the 1960s. The outcomes of these wars had profoundly shaped and reshaped the political relations and socio-economic dynamics into four distinctive socio-political regions: Lo in the north, Barhagaun, Panchgaun and Thaksatsai in the south (Ramble, 2007; Thakali, 2012). Each region consisted of different settlements that were under the local aristocracy. In the post-unification period after 18th century, the four regions served as the government bodies to collect homestead tax, through regional institutions like the council of Barhagaun, the council of 13 Mukhiyas, the council of Panchgaun, and Ghempochhe (Mukhiya group). They continued to influence the management of natural resources such as water, pasture, and forest, and to manage inter-village affairs.

Jhong was one of the settlements of Barhagaun under the reign of appointed local aristocrats and thus, never had sovereignty. The folk songs, historical evidence, and ruins of the castle fort illustrate that Jhong, along with other settlements in Barhagaun region, was an essential settlement for salt-grain trade.

Under the Rana regime from 1848 to 1951, the central rulers imposed the homestead tax on the local people, through customs collectors called *Subbas*, basically non-residents of Thakali

origins. The policy, socio-political marginalisation, and geographic isolation, on the one hand, were responsible for local economic hardship and development stagnation. On the other hand, they reshaped the roles of the traditional/endogenous local institutions for every village in Mustang.

Jhong had developed various resource management activities, which were also maintaining its cultural values. Jhong, as a socio-political unit had fixed pasture, forests, water, agriculture land, and territory, and was governed under the *Ghempo*-led village institution. The *Ghempo* is the local term used for the village head. The endogenous institutions under the leadership of *Ghempo* continued a relatively autonomous governance system at the village level for the regulation of forests and other natural resources, and day-to-day and long term physical tasks, management of internal conflicts related to resource use (Gurung, 2012; Lama, 2016; Thakali, 2012) and continuing till today. The state-appointed custom officers acted as the arbitrator for inter-village conflict. However, they did not have any influence on the running of village affairs or the management of natural resources.

### *Reflection*

Smaller settlements originated and developed based on topographic, socio-politic and economic opportunities on the banks of Kali Gandaki River despite scant resources (Seeber, 1994). For Jhong, two natural resources were crucial for its establishment: water for household purpose and irrigation, and good soil quality for tilling.

Despite its location at the rain shadow area (avg. 300 mm/year) on the bank of Jhong River, the water for irrigation and household purpose is possible from the river and spring. Furthermore, Jhong has good soil for cultivation mainly because of its location in the fluvial fan plain of *Jhong Chu* (river) and flat terrain. Similarly, the soil of the fan plain contains a large amount of silt, a good precondition for tilling the soil (Seeber, 1994).

Another important condition was the trade route between the Indian subcontinent and the Tibetan plateau in the past centuries because of the geographical and geological circumstances of the Kali Gandaki River valley (Seeber, 1994). Even though there was no direct influence of trade in the establishment of Jhong, it had foreseen its territorial concern that could bring security issues. The scenario is unlike Bandipur, which has created a market square. As such, the trade route did not go through Jhong but might have been one of the resting places for traders and a tax-collecting centre. The existence of the castle in Jhong illustrates the impact of trade route on the territorial and security issues.

Jhong adopted the harsh ecological condition through organised settlement patterns, over time, for example, the narrow alleys, soil as building materials, and flat-roof houses with small height. Consequently, the local institution under *Ghempo* evolved to maintain the knowledge of physical adaption and strategies and govern the lifestyle within the village (see Appendix 10).

The development of the endogenous governance system indicates the relationship of the physical entity with a socio-political unit. Jhong's internal governance system has generated and imposed resource management based norms. The conglomeration and disposition of the normative values define the roles for residents in resource allocation and management. Furthermore, the internal governance system is autonomous with its defined spatial boundaries in terms of use and ownership of the resources- representing an autopoietic system. The autopoietic and isolated nature of Jhong in the earlier period is basically due to lack of linkage to the external environment and institutional frameworks and their lesser influences, for example, government, and limitations of available resources within its territory.

#### b) The Period of transition from self isolation to Government's influence(1951-1961)

The termination of the Rana regime in 1951 had two significant impacts on national policies: introduction of a multi-party democratic system, and termination of self-imposed national isolation. The grip of *Subbas*, the appointed tax collectors on salt-grain trade, lessened. The improved section of the once treacherous trail between *Ghasa* to *Daana* (on the way to Mustang) opened new opportunities for trade and enterprise. However, most of the Mustang people, including Jhong, were still poor cash strapped and had to struggle hard to survive daily. By the late 1950s, a highway from Bhairahawa to Pokhara was under construction, which encouraged the Mustang residents to trade by buying and transporting back goods from India back to the hills of Nepal in mules. However, Jhong continued to survive on agriculture and livestock with its endogenous governance system (R. Gurung, 2018). Under the Private Forest Nationalisation Policy (1957), the Forest Nationalisation Act nationalised all forests. The act removed local rights and access to forest resources formally.

#### *Reflection*

The period highlights the beginning of external influence through mainstream institutional frameworks on the endogenous system on resource management. Politically, the policies and various strategies started to influence the local resource management to an increasing degree, for example, nationalisation of the forest. The involvement of the external actors and the state's



institutional framework due to the socio-political conditions influenced the autonomy of village governance system in resource management. The local norms need to address and adapt accordingly to resource management. Otherwise, there are higher chances of conflicts in case of limit of the authoritarian power of local institutions- in utilisation, ownership, and maintenance of resources. However, the case of Jhong illustrates that the conflicts were minimal unless the policies do not interfere with the local autonomy of the resources. The government's policies, for example, nationalisation of the forest, reflect the decision made on ecological consideration and even questioned the local authorship. However, the nationalisation of the forest had little impact on Mustang (including Jhong) for two reasons: first, forests neither had commercial values, nor there was the presence of government officials or institutions to enforce the forest-related rules and regulations (Thakali, 2012); second, the inaccessibility of Mustang from the external government agencies had contributed to maintaining the autonomous character of Jhong.

#### c) Governmentalisation Process (1961-1990)

During the Panchayat regime in Nepal, Nepal government integrated Mustang region (including Jhong) into the national governance system for development. The Panchayat system brought together four regions: Lo, Barhagaun, Paanchgaun and Thaksatsai, to form a new political district, 'Mustang'. In Mustang, there were 16 village Panchayats. Jhong, Putak and Chyongur together, represented a village panchayat. The new national governance structure expected the local people to participate in the national level political processes and elect their representatives at different levels of the Panchayat hierarchy. The process also nationalised all the natural resources.

In the early 1960s, Mustang faced the arrival of thousands of Tibetan refugees, and Tibetan guerrilla fighters, the *Khamba* (Thakali, 2012). In 1962, the International Red Cross' aided the construction of an airport in Jomsom as humanitarian aid for the Tibetan refugees (Gurung, 2012). After the construction of the airport, the foreigners as representatives from development agencies, explorers, and researchers arrived in Mustang.

The *Khamba* occupation remained the dominant socio-economic and political force in Mustang district from 1959 to 1974. According to Thakali (2012), their presence created new demands for local goods and services, for example, firewood and agriculture products. The resulting exchange converted the local economic base from subsistence to cash-based. Thakali (2012) has said that the conversion reduced local economic hardship. However, local

interviewees denied and stated that the rebels suppressed the locals for food and other subsidies that completely ruined the villages' governance structure and their ways of resource management. The conversion of resources into the cash-based economy was the first step towards unbalance resource conditions. The scarce forests got heavily depleted after the *Khamba* occupation.

In 1974, the Panchayat system eventually intervened and dissolved the *Khamba* occupation and established Tibetan refugee camps. The national government established district headquarters in *Jomsom* with over thirty district-based line agencies for shaping the socio-economic transformation of Mustang and its relationship with the central government (Thakali, 2012). The intervention illustrated the governmentalisation of Mustang and had a direct impact on the local village governance system. Consequently, the Panchayat Head-a government official oversteered the position of the *Ghempo*.

The introduction of government officials facilitated the input of more resources into the village. It attracted support from several bilateral agencies, for example, Natural Resource Management Project (NRMP) implemented by CARE Nepal. According to Respondent (2018), the afforestation, management and preservation were initiated in *Jhong* by CARE Nepal.

Mustang received many supports through line agencies in fulfilling the national goals under national policies and strategies, which were absent during the *Khamba* occupation. Even though the district infrastructure and local economy improved, the process exerted significant pressure on natural resources, especially forest, due to increased demand for timber and firewood, and their commodification. The nationalisation of natural resources like forest, water bodies, and pasture areas limited the function of endogenous governance system into resolving local disputes and organising cultural activities. The mainstream institutional framework completely avoided the local values that governed the strong sense of ownership and the motivation to manage and protect the resources with robust village rules and social sanctions.

The consequent was massive deforestation that was not complying with the government's aim of nationalising forest. Later, the locals negotiated with the government officials and adapted their roles with the government policies to manage forest resources within mutually agreed terms and conditions at the local level (Thakali, 2012). The endogenous institutions, led by the *Ghempo*, had a significant role in reshaping the renewed relationship (Thakali, 2012) that has been continuing till today.

Furthermore, tourism became an alternative livelihood strategy for the residents in Mustang. Many pilgrims visit Muktinath and Damodar Kunda in Mustang. In 1976, Mustang was opened as a tourist destination but restricted to travel beyond Kagbeni designated as the Upper Mustang. Jhong was also included in the Upper Mustang.

### *Reflection*

After an increase in the involvement of external agencies like the national government and NGOs like CARE, Nepal, Jhong has faced both opportunities and challenges. The management of natural resources; forests, water and pasture came under the government's legislation. The Khamba occupation had a negative impact on the use of natural resources. The *Khambas* did not feel responsible for the natural resources since they were not part of the village governance system and did not inherit the values of resource management as residents did. Consequently, they acted outside the village's rules and regulations that exploited the forests and other natural resources.

The Nepalese government intervention was more effective than the *Khamba* occupation because the state's policy of conserving natural resources and local people's purposes were overlapping. Nevertheless, the new institutional framework in the form of Nepalese government devalued the existing endogenous village governance system. The state's institutional framework posed a new challenge to autonomy in managing its resource-related local affairs.

The state's political structure was based on ecological and administrative settings that ignored the local values. However, the residents adapted to the *de facto* arrangement of the village Panchayat, because of their overlapping interests, i.e. maintenance of the local resource conditions. Furthermore, the state had tacit approval to use the resources. The endogenous governance system acted as the arbitrator for conflicts. It was considered as the formal medium to link the village with the government (Thakali, 2012). The *Ghempo* was limited to the role of translator or messenger of Nepal government officials.

The endogenous governance system continued to exist primarily responsible for managing 'internal' affairs like local disputes and conflicts. However, the nationalisation of natural resources often posed a threat to traditional values' attachment to resources associated with them. Consequently, the organisations and their purposes within the endogenous institution's structure adapt to the external agencies authority to retain autonomy over the resources. For example, the village institutions adapted mechanisms of forest conservation in line with the

government's institutional framework. However, they maintained their use-ownership of the resources. The organisations have new purposes, but the way of interactions within the organisation retained the values of resource management.

d) Integrated Management of Conservation and Development (1991-2007)

In 1992 and 1999, Local Self-governance Acts were introduced after the restoration of a multi-party democratic political system in 1991—a step to decentralisation and local governance systems in Nepal. Village Development Committee (VDC) replaced the Village Panchayat that, in practical terms, made no difference to the political boundaries. However, this practice ensured more influence and power of the elected local government authorities and reduced the endogenous institution's role. The VDC got revenue from the central government to implement development projects and collected taxes as a part of the revenue sharing from various resources. Nevertheless, the endogenous village continued to maintain its value interest and played a crucial role concerning the traditional territorial concern in user rights, access to forests, water resource, and pasture areas. The endogenous system under *Ghempo* oversaw the internal affairs, and VDC took care of external affairs and wider socio-political relations, like addressing national level interests.

In 1993, the upper and lower Mustang was included in the Annapurna Conservation Area (ACA) under the Annapurna Conservation Area Project (ACAP). ACAP is the largest undertaking of National Trust for Nature Conservation (NTNC), a Nepalese non-governmental organisation. NTNC, established in 1982 by a legislative Act, is an autonomous and not-for-profit organisation mandated to work in the field of nature conservation in Nepal. NTNC works closely with Nepal Government in the management of protected areas by directly managing three mountain protected areas and assisting the government in all the low land parks.

Introduction of the new conservation governance layer (through ACAP) formed new committees and sub-committees to promote participatory conservation programmes. The Conservation Area Management Committee (CAMC) and Forest Management Sub Committees (FMSC) was established at the VDC level that undertook all the decisions related to forests and wildlife. As per Thakali (2012), unlike District Forest Office under National Government structure, ACAP's participatory approach reinforced the management of forest through locally formed committees, CAMC and FMSC, under new conservation governance layer.

According to Thakali (2012), the Local Governance Act, 1999 led to a proliferation of non-governmental (NGOs) and community-based organisations (CBOs), and a complex network of locally formed institutions with both specific and broad mandates, for example, ACAP through National Trust for Nature Conservation (NTNC). It brought more external resources and expertise to the local communities. However, the major concerns were the issues of accountability and credibility of new governance structure, and subsequent CBOs and NGOs in Mustang.

The number of tourists increased after the inclusion of the Upper and Lower Mustang to ACA circuit in 1991. However, Jhong was not the part of ACA circuit. As such, tourism never really had a significant impact on Jhong compared to Muktinath or Kagbeni. According to the interviewees, ACAP did not establish Tourism Management Sub Committees (TMSC) in Jhong like in Kagbeni or Muktinath. Meanwhile, many youths from Jhong migrated to cities like Pokhara and Kathmandu, or India or foreign countries for employment opportunities, and continuing till now (Respondent, 2018).

### *Reflection*

The user groups' formation, with specific interests and roles, in the local level projects, has become mandatory to empower local communities and to make the development processes more participatory, transparent, and accountable. However, these local groups run under the state's institutional framework, which, as local respondents say, do not address and recognise their local values. The government initiated local groups are primarily concerned with the implementation of government-funded programmes and projects. The governmental agencies, like Jhong VDC, were entrusted to collect taxes on natural resources like stone, sand and aggregate. In practice, the endogenous institutions decided the means of resources use, and management as per the traditional territorial boundaries. As such, the local government authorities have limited scope to acknowledge local ways in fulfilling the government's goals.

According to Thakali (2012), ACAP integrated the traditional territorial boundaries of the forest, based on use ownership and management actions while forming CAMC and FMSC. As an external facilitator, the ACAP facilitated technological knowledge, goals, and policies that were overlapping with local values, resource conditions, and global goals. The endogenous village institutions had continued to play a dominant role in all the major decisions concerning forests, land, water, and pasture areas. Local participation was expanded to the level of use ownership and decision-making that the traditional institutions were accustomed to and not

limited to consultation and informing. The members of CAMC and FMSC were the locals: They know the socio-political and historical context of the community.

Despite being a part of external governance structures, they have addressed the values of the endogenous institutions, thus, comprehensible to endogenous institutions. ACAP has acknowledged the value inherited in the endogenous governance system, and their norms, which are associated with the survival of their scarce resource-based livelihood, along with biodiversity and wildlife. The forms, contents, and the roles of organisations based on endogenous governance structure has addressed the sustainable use of resources and a sustainable lifestyle.

#### e) Contemporary status (2007-till now)

In 2006, the domestic tourism expanded after the completion of the motorable road between Mustang and Pokhara. Jhong was removed from the restricted Upper Mustang. In 2008, Nepal formally became a federal republic after the abolishment of the monarchy. According to Gurung (2012), the development has grown dramatically with increased tourists and funds for various development projects. Some of the development projects in Jhong are irrigation, road construction, community hall construction, electricity services, internet facilities, mobile service, and apple farming. NTNC, in general, has feared the negative impact of the motorable road on biodiversity and ecological landscape (Bajracharya, 2018). However, for non-tourist destinations like Jhong, the road has facilitated comfortable access and transport of goods.

In 2012, new government bodies were established under the federal government. Since then, the conflict has grown between government institutions and ACAP institutions on the authority of the resources in ACA. The state's local governments are demanding the management of ACA from NTNC. Currently, there are three overlapping governance layers: Village's endogenous, state and ACAP. ACAP has already focussed on building local capacity, both at the institutional and individual level, on meeting all the conservation and development aspirations of the people. Jhong, like other settlements, has held the management and utilisation of resources like water, pasture areas, and use of forests. Still today, many internal affairs are resolved through endogenous governance system. The *Ghempo* is still a mediator for various development projects.

The role of the endogenous institution is deteriorating, not due to its inappropriateness but mainly due to lack of population and recognition of their values and organisational structure by the central government and other external agencies like NTNC. For example, in Jhong, there

was an issue related to the maintenance and repair of the irrigation canal, which was destroyed by recent landslides during field visits. According to N. T. Gurung (2018), the local level committee was formed as per government regulations for procuring construction of the irrigation canal. However, a contractor was awarded for the construction through a lower bidding process. The technical and material specifications were prescriptive. As a result, the local people shifted the responsibility towards the government for its repair. In Jhong, at least one family member from each household is working in foreign countries. Most of the youths are either studying in cities or working. Very few people returned to the village either on holidays or festivals.

### *Reflection*

The linkage of Jhong with the external agencies became profound over time. The changes in socio-economic and environmental conditions have affected resource conditions. However, Jhong still has values embedded in its culture, despite the variations in resource conditions and the ever-increasing influences of external governance structures, like the state and ACAP.

Gurung (2012) has feared that Mustang, in general, is losing its cultural identity with its increasing linkage to the outside world through tourism, an impression of cultural entropy. However, based on the in-depth interviews with the locals, this is partly a dialectic view on the impacts of tourism. Interviewees agreed on the inclination of youths towards western society. However, they pointed out the reasons for the identity loss to the inability of adapting to the changing environment that is accelerating with improved communication and transportation—not necessarily tourism only. Furthermore, many people are leaving the village to pursue academic and employment opportunities. Locals then have an incomplete socialisation process on internalising the values. Locals have received misinterpreted and incomplete information about their values. The locals could not set their own concrete goals in the myriad of diverse institutional frameworks. The situations eventually affect the organisation formations, their functions and the roles thereafter. For example, homestead or hotel as livelihood strategies has a re-bound effect on their normative values associated with resource-use. The entrepreneurship is an individual endeavour and is not governed under endogenous organisation structure.

An alternative role for the external agencies has been the role of the facilitator or as in ACAP's concept, the role of *lamhi* (i.e. mediator). The role does not infringe the functions of an endogenous governance structure based organisation formation, for example, letting the local

institutions manage the forest resource as per their institutions. The external agencies, like NTNC, has facilitated technical innovation and services so that they can adapt the knowledge from a range of alternatives. Furthermore, the non-endogenous agencies have played key roles in changing the feudal society into a more democratic one. For example, the concept of *Ama Samuha*, or women's group also holds responsibility for the management of forests. In conclusion, ACAP's facilitation process has incorporated shared values, even in capacity building and providing technical knowledge. The process has motivated the locals to think, discuss, and decide-a bottom-up process, that eventually may lead to sustainable interventions.

#### **5.4.4 Finding and Analysis- Based on EV themes**

The critical turning points in the historical development of Jhong illustrates that Jhong's core values differentiate through norms at different social structures of the endogenous governance system. Internally, Jhong's survival highlights how a community's endogenous governance structure can facilitate different organisation forms, adaptable to the dynamics of external factors, like socio-economic, political conditions in resource allocation and at the same time maintain the communal values. Externally, Jhong highlights the facilitation of technical and management skills that help to adapt its organisational forms and actions to the changing external influences like the government policies, NGOs, and others.

The following sections illustrate some of the important actions and practices that Jhong has executed internally and externally within three themes: resource management, community organisation, and knowledge sharing. The interactions are its adaptation to sustainability within dynamic changes in the surroundings.

##### **a) Resource Management**

Jhong is characterised by autonomy on the management of the resources. Jhong people consider forests, pasture areas, water, and agriculture lands as the four pillars of local livelihoods and the village environment (N. T. Gurung, 2018; Poudel, 2008; Respondent, 2018). Forest, water, and pasture, refer to Common Pool Resources (CPR). Common pool resources are the community-owned resources and are governed under endogenous governance system.

##### ***Internal Structure***

In Jhong, agriculture is an individual endeavour. However, the irrigation facilities and part of the organic composts are parts of the Common Pool Resources (CPR). The farmers produce



crops and vegetable in rotation based on the buckwheat cropping pattern. There are two phases in an annual crop rotation: winter agriculture and summer agriculture. The crop rotation refers to the intentional planting of different types of crops in different parts of the fields and at different seasons sequentially. According to N. T. Gurung (2018), crop rotation facilitates different sets of nutrients that increase and maintain soil fertility. Crop rotation discourages mass production of agricultural products beyond soil's capacity. The choices of crops and vegetables have three aspects in order- legumes for nitrogen fixation, soil tilling and absorption of water; maize for controlling soil erosion and fodder; barley and wheat for providing biomass for retaining soil organic matter and weed management. The farmers use vegetables and crops as items of barter and payment. Apple plantation is younger in Jhong in comparison to other villages-Thini, Kagbeni and Marpha. The community decides on crops seeding and harvesting through the consensus process. Time and months are consulted with the local priests, who know the lunar calendar. The coordinated seeding and harvesting in the village through crop rotations ease labour requirement and effective resource allocation (like water, compost from the forest).

In irrigation, there is a turn wise distribution of water to fields. People, who misuse water or



Figure 21 Jhong's landscape showing dense settlement and agriculture in the periphery overflow water into the neighbouring fields, face heavy fines (N. T. Gurung, 2018). The allocation and time of water are determined based on *Dhongba* system. *Dhongba* is linked to a land inheritance system, referring both to land allotments and households who hold these

allotments. Each household in the village has inherited land with a certain number of *Dhongba* allocations as proof of registration. Individuals with more *dhongbas* have greater water share and significant contribution in terms of time and efforts to village work. The *dhongba* norms indirectly restrict the larger holdings of the land because they limit the share of water if one cannot contribute significantly. As such, a parental inheritance of land holdings is divided based on the water requirement if one has large holdings.

In forest management, only residents have full access to collect firewood (dried/dead and fallen trees only), fodder, grass, and mushroom whenever they want. However, they cannot cut green and Juniper trees. The *Ghempo* decides the quota of the firewood for each individual based on previous records and prior reconnaissance. The residents are not allowed to sell forest products outside the village. If the villagers need live trees for a religious, public purpose and the welfare of the village, such as the construction of a common house, flag posts, maintenance of irrigation canal, construction of a temporary bridge across the river, they need permission from the *Ghempo*.

Jhong has designated pasture. In summer, residents hire a shepherd and leave their livestock in the pasture. In winter, they use dry straw of *karu*, buckwheat, barley, and wheat for the livestock. Sheep and yaks can graze all year round on the rotational basis in a pasture. However, *jhopa* (a hybrid of male yak and cow or female yak and ox) and horses can graze only in the high pasture areas during the summer. The endogenous village institution decides on the dates and duration for residents to take their animals to the alpine pasture areas through meetings. The norms on regulating the time for grazing has controlled the consumption of edible, medicinal, and aromatic plants that are rare and difficult to grow. The residents rear livestock for two purposes: cattle such as ox, cow and *jhopa* for their agricultural activities, and sheep, goat, chicken, and mule to sell. Some households also have horses for transportation. Residents share goat pellets and yak dung-one of the major sources as fuel for cooking, heating, and fertiliser from the forests and pasture.

In conclusion, Jhong's selection of activities and measures are based on social norms on resource allocation and conservation. Furthermore, there is no temptation in the norms to commodify the resources into a cash-based economy. The resource management measures highlight the relationship between resource production, consumption and recovery- a sustainable mechanism to ensure the resources for the future.

### *External Structure*

Jhong has its territories well recognised and demarcated through natural features like the Jhong River and religious symbols like *chhortens* (Tibetan small shrines) to avoid conflicts. The ownership claim is based on the historic use and occupation of the resources. All lands (pasture areas, forests, and non-agricultural lands) within the village territories, except those owned by individual villagers for agriculture, are part of CPR. Residents could sell their lands only to fellow villagers, even if they decided to emigrate (this has gradually changed now). N. T. Gurung (2018) has argued this act with the rationale that the outsiders might not be able to understand the values and regulations, which is highly dependent upon resource management. The land is also a symbol of membership of the village. A person, who owns fields outside his village, becomes a household member of the village in whose jurisdiction the land lies, to obtain rights and access to water and other natural resources. The access and rights are possible only if the person contributes to village work and shares other responsibilities- for example, as a *Chhowa* serving the *Ghempo* (N. T. Gurung, 2018). The village governance system restricts dual memberships and checks on if an individual enjoys resources at two different villages. Some norms restrict the construction of houses in the resource areas.

Although the authority of natural resource has gone to state, each village still claims use-ownership of water bodies (rivers, ponds and streams) within the village territories, and water that originates from their territories, but flows over to other territories before returning to its territory. In case of lack of origin of water bodies, the community shares water with surrounding communities. *Jhong* and *Putak* share the water source that originates in Jhong. Jhong gets three parts, and Putak gets one part out of four parts of water. Putak does not have to pay any taxes to Jhong community for using water. However, the use-ownership of the water source remains with Jhong. According to the interviewee N. T. Gurung (2018), Putak used to have its water source. However, water from the source is silty and thus undrinkable and non-irrigable.

Similarly, locals cannot graze their animals on the pasture areas owned by other villages; otherwise penalised. *Jhong* and *Putak* also share pasture. Similarly, *Putak* and other neighbouring villages cannot use Jhong's forest unless they have a prior agreement.

In conclusion, Jhong, as a socio-political body, has a resource-based relationship with neighbouring settlements, especially with Putak. The resource sharing and exchange with a neighbouring settlement-like Putak depends upon the negotiations of resource allocations and their strong socio-cultural ties, for example, marriage. Furthermore, the endogenous

governance system also maintains distance with the mainstream institutional frameworks in regulating the use and management of resources, unless there are conflicts among neighbouring settlements. In a way, the government has also given tacit approval to the endogenous governance system for managing the resources but restricts the commodification of the resources.

#### b) Community Organisation

In Jhong, the social organisation forms based on its endogenous governance system and overarching cultural values. Different forms of organisations have contents concerning resource allocation goals. Internally, the endogenous governance allocates resources on equity to all its members and externally fends off any threats or influence on its autonomy of the resources. Through the endogenous governance structure, Jhong as a social system tends to maintain its values through designated roles of individuals and groups in certain purposeful organisations for resource management. It also adapts the forms of the organisations according to the new goals and functions to maintain its value autonomy of resources.

##### *Internal Structure*

Historically, in Mustang, an old community structure consisting of the institution under the *Ghempo*, and assisted by *Chhowa*, governed the organisational forms and contents. The *Ghempo's* enforces and monitors rules and regulations agreed and approved by the village assembly, providing judicial services in local affairs, and managing CPR related activities. The *Ghempo* also appoints advisors for the village council for consultation.

The participation and contribution of every household depend on a *dhongba* system. Based on the allocation of *dhongba* in each household, usually between one and three, the contribution of each household proportionally increases to village work. For example, if a village requires labour to repair irrigation channels, the household counted as two *dhongbas* provides two workers for it. The household also needs to serve as *Ghempo* and *Chhowa* twice (Thakali, 2012). Similarly, only *dhongba* households are eligible to become a *Ghempo* on a rotational basis for two years. The appointment reflects the democratic process; however, feudal because of the absence of female household members.

There are two aspects for the effective function of the community organisations under the *Ghempo* led governance structure: the communal use ownership of CPR, and decision making through village assembly.

The communal ownership of CPR interprets resources as need and subsistence for the future rather than a commodity. Furthermore, the concept of CPR emphasises mass civic participation in the village assembly. The village assembly is the legislative body to make decisions that give authority to the *Ghempo's* decisions. The *Ghempo* acts and decides based on the norms and discusses and decides through discourse in the village assembly. The village assembly refers to a space of social interaction for consensus building and conflict management for bigger issues.

The *Ghempo's* responsibility is legislative and jurisdictional in decisions related to resource management. The *Chhowa* has executive responsibilities and oversees water sources, minor repairing, ensuring smooth operation of the irrigation system, and protecting the high pasture areas and forests. For major upgrades, repairing, firewood allocation, and water allocation, the *Ghempo* calls the village assembly for consensus decision making. The endogenous decision-making process highlights the hierarchy of decision-making process.

Even though the introduction of new governance structures -government and ACAP- has diminished the role of the *Ghempo* to resolving local conflicts, major decisions on CPR are still undertaken by the *Ghempo* in Jhong at the local level. Resource-based norms and the consequent governance structure highlights that organisation forms and contents at the communal level proportionate local contribution and resource allocation.

However, in the present context, the marginalised group like *Dalits*, and migrants are often left out on an organisational level- a feudal feature of community organisations. Households that do not have any land ownership in a village are marginalised, for example, *Dalits* and workers coming from other settlements. It also determines the 'insider' or the 'outsider' dilemma. The households, not owning land, will not have *dhongba* status and are not the members of Jhong. One cannot internalise the local (resource-based) values that one can learn or acquire only by participating as a member (N. T. Gurung, 2018). Therefore, the *dhongba* status not only represents the land ownership and the village membership but also certifies that one has acquired the communal values for gaining mutual trust. As a result, the marginalised groups, including female siblings, who do not inherit parental lands, cannot participate in the village-level decision-making process.

### *External Structure*

Jhong's relationship and ties with the surrounding settlements and external agencies like government and NGOs are based on exchanging resources and resolving conflicts in the ownership of the resources. Jhong interacts with three external stakeholders: surrounding traditional settlements, state-government agencies, and NTNC's conservation agencies through ACAP.

Jhong is a part of the *Barhagaun* region. According to Thakali (2012), *Barhagaun* had a regional level institution that used to hold a meeting every year on a rotational basis and go over older documents to resolve disputes between the villages, especially resource-related conflicts. However, during the Rana regime, after the appointment of *Subbas*, they became the *external chief* of *Barhagaun*. There are some NGOs registered, such as *Barhagaun Samaj* (society) in Jomsom and Kathmandu: They help fellow villagers in need and living outside their original villages.

In the case of a change in use-ownership and depleting resources, Jhong's institutions negotiate with neighbouring settlements and external agencies in the bioregion, for example sharing water with Putak. Their interest is on maintaining their values in connection to the resources. The overlapping values between different village institutions facilitated creating the regional organisation even outside their original villages, like *Barhagaun Samaj*, mainly because of the changing demographic condition. People have started to live outside the natal village-like Kathmandu or Pokhara. However, such organisations still have forms and values as per their traditional structures.

Under the state's new governance structure, Jhong, Putak and Chyongur constitute one ward under *Barhagaun Muktikshetra Gaunpalika*. There are now three governance structures within one political, administrative unit, i.e. ward: Endogenous village's, State's and NTNC's institutions, As per the Local governance operation act 2017, development interventions are implemented through the local level user groups and Community Based Organisations (CBOs)- a process of community participation and government's decentralisation. The increasing number of NGOs led to dramatic changes to the local institutional landscape because of the emergence of interest groups largely funded by them. The proliferation has also created the complexity and conflicts and at times, challenges to the endogenous governance structure. According to the interviewees, after the project completion, all user groups and committees dissolve, with no one to take over the project afterwards. The project's *de facto* option is the endogenous governance system, which officially does not have any recognition in state's and

NTNC's governance structure. Even in the projects do not have such transition mechanisms to take responsibility after the project's completion. One of the best examples is the handover of the ACAP from NTNC to state's local authorities. According to N. T. Gurung (2018), endogenous institutions need to be involved in the decision-making process if they eventually have to maintain those projects.

After the emergence of NTNC's ACAP in 1993, the rights to manage CPRs, like a forest, and pasture has transferred from endogenous structure to ACAP's structures: CAMC and FMSC. CAMC is a grass-root committee of ACAP with a unit of 15 members (Poudel, 2008; Thakali, 2012). In Jhong, CAMC covers three villages, Jhong, Putak and Chyongur. In CAMC, there are representatives from three villages with a representative from VDC chairperson as an ex-officio member of CAMC, and other members selected by the conservation officer of ACAP from the same VDC (now ward). Furthermore, government-related line agencies make decisions on development issues.

The growing influence of external governance structures has developed a scenario of conflict between the endogenous governance structures and external (government and ACAPs) governance structures. Despite the growing influences and conflicts concerning resource ownership, Jhong still manages CPRs according to its endogenous governance structure in the way it used to. For example, CAMC has the rights to collect income tax from the forest and decision-making power to use the money. However, the endogenous governance systems still manage the firewood allocation and pasture grazing (Bajracharya, 2018; N. T. Gurung, 2018; R. Gurung, 2018; Respondent, 2018). The endogenous governance structure oversees forest management, considering the goals and policies set by ACAP through CAMC, yet ensures that their local values are intact. The presence of different governance structures is rather creating confusion to the communities than easing way out and also establishing scepticism (see also Poudel (2008)).

Under the influence of external agencies, the forms and contents of different organisational forms are becoming inclusive and reflective. The changes address the effects of demographic and socio-economic changes, particularly, the organisational forms promoting the inclusion of previously excluded groups, like women and *dalits*. *Ama Samuha* (Mother's group) is a success, while and Citizen Awareness Centre (CAC) for *Dalits* was not. In *Ama Samuha*, the participants are involved in many activities related to resources like collecting firewood. As such, they have concrete goals, which are comprehensible to the local values.

On the contrary, the overall concept of CAC was limited to awareness campaigns. It did not facilitate any concrete goals concerning the integration of *Dalits* or their roles. It has rather differentiated them from other villagers through exclusive CAC. CAMC operates according to the customary process and rules despite the existence of CAMR (Conservation Area Management Regulations).

A plethora of grassroots organisations with names such as Ban Samiti (Forest Committee), Ban Samrachana tatha Bikas Samiti (Forest Conservation and Development Committee), and finally to *Samrachan Chetra Byabasthapan Samiti* (Conservation Area Management Committee-CAMC) has evolved. Despite changes, the committee has embedded the traditional values of use ownership of the natural resources, especially the forest (See Annex 11).

Unsuccessful policies contribute to the *insider/outsider* phenomenon at the local level. Even if the local people are members of organisations based on external structure, they are referred to as outsiders because of differing values and associated roles. The endogenous governance structure receives an *insider* role because of its communal value. For example, in irrigation canal construction in Jhong, a donor decided the technical directives and selected the contractor through a bidding process. The user group consisting of the residents had no saying in those decisions (ABC, 2018). The donor did not consider locals the decision-making process. It was an act of tokenism rather than participation. As such, they do not feel the responsibility to repair and maintain the canal.

The external agencies in the form of stakeholders and policies have directly and indirectly influenced the adaptation of organisations in Jhong. The forms and contents of organisations are becoming increasingly inclusive and reflective to address the effects of demographic and socio-economic changes and new political aspirations, particularly those promoting the participation of the previously excluded group in the management of village affairs. In Jhong, The establishment of many socio-political bodies under different governance structures has created too many obligations for a very small population like Jhong. The same The Jhong case illustrates that all those user groups' formation could mould into the organisations under the endogenous governance system and facilitate more power and authority to the existing system.

### *c) Knowledge Sharing*

One of the key features of collaborations in Jhong is knowledge generation and sharing within the endogenous governance system while interacting with external agencies. The knowledge sharing through collaborations does not only provide a platform and basis to select different



measures in different resource conditions but also allows the integration of the knowledge generated into the local norms through institutionalisation. For example, the goals of ACAP's objectives and measures of forest management are institutionalised by village institutions. Integration into the norms helps to regulate actions under similar conditions in the future as well. The knowledge generated from the local context does not limit within the community. It rather transcends to bioregion and future generations, thereby contributing to the continuity of the local autonomy and regional identity. For external stakeholders, this means to apply the process in similar contexts or repeat a similar process to institutionalise those goals into the local norms. For example, NTNC uses the experience from ACAP in other projects like Manasalu Conservation Area (MCA) emphasising the knowledge on the local ownership, organisational structure and knowledge.

### *Internal structure*

In Jhong, there are three ways to share knowledge and the norms of resource management. They are myths, social roles, and village assembly.

There are norms that directly or indirectly refer to the selection of measures for resource management in the form of myths. For example, according to one of the interviewees (R. Gurung, 2018), there is one myth in relations to the architecture of house-

*'In Jhong there is a popular myth about the main entrance of a building's height. A house, with the taller door, it is easy for the night ghost to enter the house. Besides, the wider approach road provides an opportunity for the ghost to enter the house. Therefore, all the houses have smaller doors, and the houses are closely built together with narrow alleys'.*



Figure 22 Compact settlement of Jhong

Practically, the myth reflects the norms for compact settlement to combat cold. The lower height and compact settlements reduce heat loss. The values and knowledge of compact settlement are associated with different resource-related measures are integrated into various myth and stories in metaphors or written archives. Several myths and measures are transmitted from generation to generation in the form of narratives, religious symbols, and festivals. For example, the New Year, locally called as *chhyogo*, is based on the crop rotation pattern. Furthermore, traditionally, people consider the forest, water source and other environmental features as various gods and goddesses. As a result, they cannot harm the resources, and they have regular traditions for keeping the source clean.

Furthermore, all residents with *dhongba* are entitled to definite roles through norms. Roles, on the one hand, implies contribution to village works; on the other hand, implies the transfer of the norms that a local follows, the ways the values are maintained, and actions performed. For example, the *Ghempo* receives knowledge on different task through advisory committees, old written texts and evidence, and most importantly, through the village's assembly for bigger cases. The process of acquiring knowledge represents the socialisation process.

The village assembly facilitates participation in the decision-making process and thus, acts as a space for social interaction and communication. The participation may generate, share and

store knowledge in a written form if it is important as evidence. The village assembly also creates transparency for the residents. It is mandatory for resolutions that have larger consequences and periods in the form of a series of events. Participation facilitates understanding, learning, and internalising village norms and regulations.

### *External Structure*

Jhong had increased collaboration with external stakeholders since the Panchayat system when the government officials were directly involved in the governmentalisation process of Mustang. The collaboration has continued with NTNC-a non -government organisation- through ACAP. As such, Jhong accords with the national level policies and goals as well as the ACAP's objectives. However, one of the major reasons of external collaboration, for example, state and NGO, is to adapt its knowledge and organisations forms and contents to tackle resource conditions due to the socio-economic and political changes that have a direct impact on its resource allocation and their values. The collaboration of endogenous institutions with external stakeholders requires proper communication for the knowledge generation and sharing as in the case of forest management of ACAP.

Although the external influence can bring resources to the community, it also brings the conflict concerning the autonomy of the resources. After the promulgation of multi-party democracy, Mustang district received funding and technical expertise from different government line agencies and NGOs like NTNC for both conservation and development (Gurung, 2012), for example, NRCP, ACAP, Himali project. Concerning funding, the community and the external stakeholders have come into negotiation terms on the use of resources, and the decision-making process for resolving the conflict.

If the external stakeholders have overlapping themes on a selection of means, Jhong has adapted its organisation forms internally so that both parties can have the same base of knowledge for comprehension and resolve any conflicts. The collaboration process yields a co-creation of knowledge for resolving conflicts and consensus building in the selection of means. Under such situations, there is a higher possibility of continuation and success of the collaboration. For example, the forest management programme through local participation, which was started by an NGO- CARE Nepal and continued by NTNC through ACAP, is in the negotiations for ownership transfer to local bodies. In Jhong, the projects that assure and enhance technical ability related to the autonomy of the resources are more likely to be continued.

For the external agencies like NTNC, they can replicate the co-created knowledge to other similar regions. The process allows the contextualisation of the knowledge so created based on the corresponding region's values. For example, NTNC has used the knowledge co-created from ACAP in the case of the Manasalu Conservation Area (MCA) and gives the autonomy of the resources to local communities in the Manasalu region. NTNC, thereby, has maintained the facilitator role and observed their decisions on the selection of measures and organisation forms, if they cross the national interests and goals on nature conservation.

### **5.4.5 Inferences**

#### *5.4.5.1 Cultural Value Maintenance*

Cultural attributes are often associated with myths, traditions, and symbols transferred from generation to generation. Etymologically, culture symbolises the agriculture metaphor. Agriculture refers to the use of natural resources to produce commodities which maintain life, including food, fibre, forest products, horticultural products, and their related services. At the basic level, culture refers to the highest possible understanding of human development. The development is based on the use and maintenance of natural resources in the forms and contents of normative values.

The case of Jhong illustrates that the cultural values attribute to Jhong's development, and the maintenance of cultural values, and in turn, have contributed to its subsistence since the historical period. The primary focus of Jhong has been to survive and prolong its existence as an autonomous body by efficiently using and owning the available resources. The subsistence characterises 'sustainability' and even the visions of Ecovillage concept.

The Jhong has developed an endogenous governance structure that facilitates different organisational forms to implement its rules and actions in managing resources. Every individual has certain roles in a collectivity of organisation and performs physical actions accordingly. The actions ensure not only the solutions for problems associates with resource use, allocation, and maintenance but also the embeddings their values embedded in those actions. The collectivity of complementary roles assigns concrete goals based on their resources, and everyone performs accordingly. The goals are influenced by socio-economic and political conditions that determined the resource conditions. For example, for farmers, the collective goal could be to achieve certain targets on crops harvesting and are often guided by the government policies, market scenarios, demographic changes and environmental conditions like drought, landslides. Under such resource conditions, social norms limit actors'

freedom and the ranges of choices available to them by creating a set of external restrictions as per the norms. For Jhong, the dynamics of actions, external influence, and resource conditions require complying with the norms under the endogenous governance system.

In general, interventions related to sustainability often lack characteristic of integration to the local norms. However, they offer prescribed actions to the local communities- one of the reasons why many projects fail. In many cases, the goals do not comply with a village's values and as such, survive only during the project period. In general, there is no space or mechanism built in the external origin projects, which facilitates the local values to be embedded accordingly for developing locally adapted actions.

In some instances, however, specific actions and goals are externally set based on the changing surrounding and resource conditions. In these cases, the local norms evolve and develop in response to the dynamics of changing socio-political and economic scenarios that require new knowledge. The changing resource conditions imply the adaptation of the norms in response to varied resource condition through mass participation but keeping intact the cultural value. For example, in Jhong, the increasing migration enforces female participation, the establishment of *Ama Samuha*, in resource-related tasks like taking care of the forest. The scenario has been able to address some inclusiveness in resource management and decision-making process. The female participation characterises the adaptation of norms as one of the means to tackle changing conditions; however, it maintains the pattern of cultural value concerning resource ownership.

Jhong's existence is due to its value on the autonomy of resources. If the cultural values are undermined, there is also a higher probability that Jhong would undergo radical changes, and lose its identity. Furthermore, suppose the organisational structure of integration continues. In that case, the individuals keep on learning values and corresponding norms through different organisations and roles- a socialisation process.

In conclusion, the case of Jhong shows that cultural value maintenance is a process that involves the development of norms in terms of roles, goals and myths. The norms regulate actions for the efficient allocation, use, and maintenance of resources and transferred the norms across space and time. The endogenous institution is the communicative space for actors to internalise the value-based norms through the socialisation process in different forms of roles. Cultural value is apprehendable through a series of events and the outcomes that it can bring to the community in resource management. The Jhong case also illustrates a challenge to the

interpretation of sustainability through different interventions. The Jhong's solutions also respond to the EV's system challenge (See chapter 2) to embed sustainability in the entire organisation. The Jhong case highlights that interventions are manifested as a series of events of the evolution of value-based norms in setting concrete goals and associated means. For the EV concept, these manifestation reflects that any activity has plural functions. The first is to solve the problem. The second is to consider it as a part of the socialisation process that embeds the values into the person. The third is to meet changes and simultaneously maintain the system. As such, there is a challenge for promoting sustainable cultural tourism as an alternative means of livelihood in traditional societies like Jhong. But tourism has never been introduced or developed as a part of their socialisation process to maintain their values. On the contrary, it has commodified cultural values. As such, local communities have feared tourism as a threat to Mustang's identity.

#### *5.4.5.2 Regional Cooperation*

The integration of sustainable lifestyle into the mainstream society and development seems to be more conceptual than innovative and practical. The small scale, locally controlled activities through resource management, community organisation, and sharing the knowledge have dominated the concept of sustainable living. However, the regional connections of Jhong with the surrounding settlements, and other agencies are based on the shared cultural values and developing the negotiation terms for protecting own resources, and consequently respecting the territorial concerns of the surrounding settlement's resources. They are embedded in various forms and contents of the local norms, for example, never graze in the grazing areas of neighbouring settlement's fields. For Jhong, the 'region' refers to the social interaction based on the disposition of ecological, social, political, and economic relations, associated with the surrounding settlements in concrete objects, socio-cultural ties, traditions, oath, and written manuscripts.

Several governmental and non-governmental organisations have often characterised regions by demarcating territories based on ecological relationships (ACA) or political, administrative ease (municipalities), for example, national parks, and other conservation areas. The decisions and interventions focussing only on the ecological relationship or political, administrative divisions between the system and the surrounding in concrete geographical space may yield the conflict. For example, in ACAP, despite its strong regional cooperation with *Barhagaun* region, it was politically separated from the lower Mustang. It had the status

of a part of the Upper Mustang. The division of the upper and lower Mustang by ACAP was based on topographical and ecological conditions.

The collaboration yields knowledge and opportunities for sharing that facilitates consensus building and conflict management. For Jhong, the collaboration contributes augmenting the regional development based on the socio-cultural and ecological ties between various settlements within ACA and also the mainstream institutional frameworks. The collaboration also illustrates that a settlement cannot be isolated physically, socially, economically, politically, and culturally. However, the collaboration maintains the autonomy of natural resources and identity of the village despite the change in resource conditions.

At different times, Jhong's endogenous governance structure has adapted different strategies in response to the impacts of national-level socio-political changes, like Rana period, Panchayat system, multi-party polity, and now federalism. Despite its status quo as an unofficial structure since the Panchayat system, the *Ghempo* led governance structure has continued. The continuation is motivated by their interest in maintaining village autonomy over local affairs, village unity, and social coherence. The endogenous village governance structure became more active and adaptive to changing socio/political conditions at the regional level. The best example of adaptation to the regional cooperation is the inclusion of women in village assembly and the continuation of *Ama Samuha* (women's group). Retaining the shared cultural value while transforming to the mainstream society has been a challenge to EV concept. The case of Jhong highlights that it is possible to maintain its value by adapting the endogenous governance system but at the same time responding to the mainstream institutional frameworks. The solution is to conceive the goals-setting as a part of the socialisation process that is comprehensible both to the local values and the mainstream society. The idea is not only to address the values but also the patterns of value maintenance-how the actors can internalise the values through those actions as well.

For example, since the concept of forest management was conceived as a pattern of value maintenance to the local people, the cooperation between the village governance structure to external structure (ACAP's) was possible. However, many other development initiations were dysfunctional, like tourism, infrastructure development, and even agriculture, often resulting in conflict. One of the major reasons is that other interventions do not address local values, use-ownership, and local directives. Many interventions were radical to the liking of communal values, and a top-down approach with local participation limited to informing and giving directives for implementation. Then, a proper bottom-up approach (refer to Chapter 1) in

planning is to address the local ownership and local values so that the endogenous governance structure can adapt and develop negotiation terms with mainstream institutional frameworks, as in the case of forest management. The process refers to as the contextualisation to the changing socio-economic, political and environmental conditions. The process also reflects the translation process of the Jhong's endogenous governance system into mainstream society.

In conclusion, interpreting a traditional community based on the cultural value provides a wider space for regional interactions with mainstream society in a broader period than just maintain ecological balances and self-sufficiency within its closed territory. The EV concept considers the region as an influence in terms of geographical connection or relational linkage. All the activities, relationships, and resources are confined within the territory based on the regional relationship through cultural values. As such, the cultural values are also confined within the territory. In Jhong's case, on the other hand, the cultural values associate the relationship between resources, human and environment. The human-nature based Jhong's regional relationship is the outcome of disposition of ecological, socio-political, economic relationship, and cultural values over time and regional space.



## **5.5 Comparative Analysis of Four Cases Based on EV Themes, Cultural Value and Regional Cooperation**

Tables 3, 4 and 5 below summarises patterns of activities, practices and other mechanisms based on three thematic categories of EV. The tables also highlight the core values that each case tends to maintain and the regional cooperation that they intend to build and maintain. The table highlights each case as a social system and the key features of each case as a case of local-level sustainability. The comparison among four cases is based on two aspects: first, the analysis of interactions among different individuals within an organisation in an internal structure under three EV categories; second, the analysis of the interaction between the community with its surrounding under three EV categories in an external structure.

Each case presents sustainability in different forms and contents of interactions in an organisation that are comprehensible to respective community members in maintaining their values. Furthermore, the activities and practices also refer to the patterns of interactions that allow regional interaction to transform into mainstream society in different resource conditions: ecological, political, economic, and cultural. The sustainability's forms and contents not only intend to have sustainable practices but also tend to maintain their value by embedding them in culture and also in the mainstream institutional framework. The cross-cutting aspect both in terms of internal and external structure is the selection and innovation of different means, activities, solutions and practices for the concrete goals. The ends have different subjective values as per the communal value and objective solutions based on the resource condition. Different measures (actions) and the concrete ends are comprehensible from both value-based subjective interpretations and the objectivity of resource condition.

From the resource perspective, Schloss Tempelhof aims at maintaining economic solidarity through a strong economic foundation. Different initiatives and solutions about eco-low technology are primarily the means to maintain their economic solidarity and self-sufficiency. Its financial investments in the mainstream society also feature its goals to maintain their solidarity by investing as a cooperative rather than an individual entrepreneur. Bandipur highlights the identification and utilisation of the location potentials to develop individual entrepreneurship. Rather than have a collective foundation unlike Schloss Tempelhof, Bandipur features individual endeavours, as per the lessons learned from the mainstream society and the corresponding institutional frameworks. As such, most of the solutions and initiatives, especially focussing heritage conservation, has the connotation of the

commodification of cultural values and reflects the adaptation of the mainstream economy. As a result, Bandipur has lots of collaborations with external agencies. Hurdal EV characterises resource management as the development of eco-friendly solutions to develop the naturally built environment but with modern functions. The focus has been to reduce the consumption of energy in the built environment using traditional and modern technologies. The collaboration at an external level also features pooling of finance and technical expertise in developing an eco-sensitive built environment. Jhong has made resource management simple in comparison to other cases through common pool resources. It features maintaining the natural resources, rather than developing any innovative solutions to decrease the consumption or commodification of the resources. The practices and activities are scaled up to the regional level in balancing the resources for its future use.

In a community organisation perspective, all the case features the development of internal governance system and corresponding goal-specific organisations. However, the patterns of community organisation in all four cases are exclusive. Schloss Tempelhof has the governance structure based on cooperative ownership and ‘all are leader’ principle (We process), with a flat hierarchy of decision-making process. Their cooperative based governance structure has facilitated the collaboration within the mainstream institutional framework. Bandipur’s different goals specific organisations are based on the existing socio-cultural ties, like *Guthi system*; however, have been adapted for their individual entrepreneurship goals, like Eco-tourism. Their governance system is blurred because of their different shared values across different groups of people are connected through heritage-based tourism. Their alliances with external agencies feature their entrepreneurship motives across the broader region. Hurdal EV’s endogenous governance system has facilitated three different kinds of organisations depending upon the patterns of goals. The presence of regional actors highly influences the types of organisations. For example, the collaboration concerning profit has limited company organisation, collaboration with innovations and knowledge have a foundation, and non-profit collaboration has cooperative organisations. The flexibility of the governance system facilitates easy collaborations at a regional level. For Jhong, the endogenous governance system has patterns of resource ownership. Their governance system facilitates different cooperative organisations depending upon the resource-related objectives and the corresponding roles. At an external level, the community organisation features a collaboration with external actors based on the overlapping values, especially on resource ownership.

Schloss Tempelhof has developed as a demonstration site for knowledge sharing on ways of ecological living through regional linkages. Furthermore, it has also started the educational initiatives for disseminating the shared values of communal living. Schloss Tempelhof has also developed working groups as the knowledge learning space. Similarly, Bandipur has used the existing cultural ties, for example, Guthi, to transfer knowledge and also developed education centres to disseminate their knowledge on tourism. Bandipur has further scaled up the initiatives to incorporate into the mainstream institutional framework of the municipality. Hurdal EV has mostly been the demonstration site for the eco-sensitive built environment and has participated in developing the mainstream municipality policies in developing eco-friendly built environment. Finally, Jhong has maintained its inclusiveness of the knowledge related to resource management through cultural norms. A person inherits the knowledge by only understanding Jhong's governance system. Jhong uses the cultural values in developing ties with regional actors, surroundings, state government and NGOs/INGOs.

During the translation into mainstream society, the patterns of activities and practices concerning three themes influences on how each case maintains its shared values and how the regional context influences the activities and practices. For EV concept, the importance is the maintenance of the shared value and at the same time facilitating the integration into the mainstream society, an approach to understanding mitigation the sustainability gap.

The Schloss Tempelhof has embedded sustainability in the shared value of intergenerational equity. It has maintained even during participating in the mainstream institutional framework. Meanwhile, it adapted its practices based on their learning of the mainstream society so that values are kept intact. As a part of the translation process, Schloss Tempelhof has participated in the mainstream institutional framework to contribute to developing the regional identity, for example, *Jagsregion*, with its values.

Bandipur has embedded sustainability in the shared value of building entrepreneurship-based lifestyle. Bandipur's shared value of tourism is highly influenced by changes in the resource conditions due to political and economic institutional changes. Bandipur has accepted the regional dynamics and adapted its practices, solutions and activities, and even values as per the mainstream society for its survival. It has further advocated to scale up its practices in mainstream policies.

Hurdal EV has a shared value of a natural way of living through self-made housings. However, it has made changes in their consequent actions and practices with the growing influences of

mainstream society, especially in terms of planning regulations, financial conditions, and the mainstream values of sustainability. Hurdal EV would likely lose its identity in the translation process to mainstream society. An illustration is the concept of *Aktivhus* that is the product of the planning regulations and surrounding regions aspiration of the houses.

In Jhong, sustainability is embedded in the shared cultural values. The sustainability is internalised in different forms and contents of the traditional values in terms of traditional norms and associated roles differentiation among the social actors in different situations. As such, Jhong has been able to maintain its identity even with the more significant influences of the external agencies like state government or NGOs like NTNC. The Jhong illustrates the process of inheriting values through understanding, learning, experiencing and performing them- as a part of the socialisation process.

A comparative analysis of four cases concerning the transformation process reveals different ways of perception of sustainability in the cultural values and their interaction with regional actors as a part of the translation process. Through different initiatives, Schloss Tempelhof and Jhong have aimed to solve the problem and at the same time maintain their pattern of value maintenance. While Schloss Tempelhof has value learning process like '*We process*' and schools, in Jhong, the value learning process is through the socialisation process in terms of inheriting normative roles. As such, Jhong has embeddedness of sustainability in every action as latent value in concrete goals in comparison to Schloss Tempelhof, for example, management of the natural resources. In Schloss Tempelhof, the shared values sometimes appear as a separate entity, with actions directed explicitly at value maintenance, for example, a communal foundation for equal access to different aged people.

On the contrary, Hurdal EV and Bandipur highlight their inclination more towards mainstream society. Rather than retaining their identities, their focus has been more on survival through adapting the practices and solutions according to the mainstream institutional framework. In the case of Hurdal EV, the tendency is more towards the individual aspiration of eco-friendly built, environment rather than building a community. In Bandipur, the tendency is more toward developing individual level entrepreneurship. As such, their motives are more inclined towards individual aspirations that collective vision, as seen in Schloss Tempelhof and Jhong. Furthermore, Jhong highlights the embeddings of sustainability in the socialisation process as a latent value in comparison to the other three cases.

In conclusion, the value maintenances and regional cooperation are crucial in the translation process concerning sustainability gaps. Sustainability is integrated into different forms and contents in the actions to either solve a problem or maintain the pattern of values due to changes in resource conditions through concrete ends. The former reasons reflect the objectivity of any actions in solving problems. In contrast, the latter reflects the subjective nature of the ends concerning value maintenance.

Table 3 Comparative Analysis of four cases based on EV themes, cultural value maintenance and regional cooperation

	Resource Management (RM)		Community Organizations (CO)		Knowledge sharing (KS)		Cultural value maintenance	Regional cooperation
	Internal	External	Internal	External	Internal	External		
<b>Schloss Tempelhof</b>	Strong economic foundation based on self-sufficiency; affordable housing with Eco-low technology; cooperative ownership structure.	Regional level investments as entrepreneur; regional landscape like orchards maintenance; agricultural produce exchange.	WE-process as community building; governance structure for democratic decision-making process; cooperative ownership; diverse age and gender wise.	Collaboration and partnership in political and economic arena.	Dissemination of knowledge through village school; informal platforms of decision-making as social space; learning through self-employment.	Part of networks; Organisation of programmes and seminars.	Sustainability come is the form and contents of a lifestyle with intergenerational equity through sustainable living.	Integration towards mainstream development through regional level collective goals (for example <i>Jagsregion's</i> goal).
<b>Bandipur Bazar</b>	Site potentials identification; equity-based allocation of resources.	Resource exchange with the surroundings, identification of proper means and mode of resource exchange.	Organisations based on strong socio-cultural ties.	Organisations based on sharing and exchanging resources symbiotically, for example traders and porters to regional Partners; trading based migrations associations; global and	Knowledge transfer and inheritance through traditional institutions (Guthis); educational and training institutions; government Institutions (MTMP).	Exchange of the knowledge to the surrounding (for example BECTP); community organisation with selective integrations adaptability of outside knowledge	Sustainability comes in the form and content of community participation-based entrepreneurs hip; lifestyle adaptable to changing resource conditions.	Regional dynamics acceptance geographically, economically, politically; tendency towards developing regional identity; upscaling the local initiative to mainstream

Table 4 Comparative Analysis of four cases based on EV themes, cultural value maintenance and regional cooperation.

<b>Hurdal EV</b>	Resource production, consumption and recovery; food security; Shelter concept; ecological industrial and business centre.	Resource pooling regionally; agriculture cooperative; improvised local materials and technology; local products promotion.	Three kinds of organisations-cooperative ownership for agro-products, foundations for projects, limited company for local entrepreneurs hip.	Flexible Cooperative organisations that allow incorporating external stakeholders and collaborations.	Collaboration for knowledge and experience exchange; foundations for knowledge generating initiatives; publications.	Broader networks resource wise and knowledge wise that allows pooling of experts and associated knowledge.	Sustainable living comes as an adaptation of Norwegian culture.	development (for example byelaws). Integration to mainstream development by scaling up the local level initiative, EV to sustainable valley.
<b>Jhong</b>	Crop rotation in agriculture; turn wise distribution of water into different fields; restricting on cutting live trees; designated grazing area.	Territorial demarcation of land based on the resource's potentials (residences, grazing, agriculture) among different settlements but sharing on negotiation terms.	Organisational structure at community based on resource management governance system; compulsion of participation	Resolving conflicts in the ownership and use of resources amicably; development of different community-based organisations based on ACAP that have regional and governmental linkages.	Knowledge on resource management based on written archives or use; knowledge transfer in the form of narratives (myths, stories); Norms.	External knowledge through resource funding or expertise through goals and policies covering region; traditional ties between different settlements.	Sustainable lifestyle based on scarce resource-based management and utilisation cultural values with norms associated with of resources.	Sharing resource based common values in making regional ties traditionally; considering regional cooperation through socio-cultural relationships.

## 6. DISCUSSION-THEMATIC ANALYSIS

In the following chapter, the PhD research presents the thematic analysis from different case studies into common themes that are workable in developing actions at the community level and policies at the regional level. The chapter is two-folded. In the first part, the chapter refers to findings from three cases- Schloss Tempelhof, Bandipur Bazar Bazar and Hurdal EV to highlight how an EV concept can contribute in developing intermediary activities that link the mainstream policies. The section characterises the EV concept based on the role of social interactions in developing community values and regional cooperation. In the second part, the chapter explores how an EV concept can learn from traditional settlements like Jhong in developing actions that are comprehensible to the core cultural values of the communities. Table 5 summarises overall thematisation of social phenomena from the case studies. Table 5 highlights three themes of the pattern of social interactions and their inferences on cultural value maintenance and regional cooperation. The table also illustrates the systemic nature of different activities and practices.

Table 5. Summary of the Thematic Analysis of the Findings from Four Different Cases

Aspects	Resource Management	Community Organisation	Knowledge Sharing	Cultural Value	Regional Cooperation
<b>Internal Structure-ACTIONS</b>	Innovation in technical system, Viable economy. Control of resource production through common pool resources.	Consensus process and system of conflict management, Internal organisation structure promoting entrepreneurship	Educational initiatives, Understanding common values	Subjective Experience, Contextualisation	
<b>External Structure-POLICIES</b>	Connectivity to mainstream economy, Promoting local entrepreneurship	A part of a broader region from an organisational structure, Facilitation of collaboration	Replication, Scaling up to a broader audience, local actions to mainstream integration		Social relationship centred regional cooperation



At a glance, all four cases feature similar eco-friendly technologies and solutions. However, the patterns and the objectives are different. Schloss Tempelhof features an intrinsic aim of developing communal values by controlling resource production through different innovative measures and communal ownership of the resources. Bandipur Bazar has the patterns to develop economic viability and then connect to the mainstream economy by promoting local entrepreneurship. Hurdal EV has used the solutions to build the natural-built environment in align with the municipality's political vision. Most interestingly, Jhong has kept it simple to maintain the balance between nature's production and human consumption through common pool resources.

Even though each case has an endogenous governance system, the basis of community organisations in all four cases have four distinct features. For Schloss Tempelhof and Jhong, the endogenous governance system is to facilitate the equity in resource access and decision-making process for consensus building and avoiding conflicts. Jhong further has the hierarchy system with differentiated roles, with different actors having differentiated roles depending upon the objectives. For Jhong, it is also about to bring the normative orders to resolve any conflict with differentiated roles. For Bandipur Bazar and Hurdal, the community organisation reflects their inclination toward the mainstream society. Bandipur Bazar's governance system is blurry and mainly focussing on developing entrepreneurship based on the mainstream economy. Hurdal EV is on the verge of integrating into the mainstream institutional framework. At the external level, Schloss Tempelhof and Jhong have attempted to integrate into mainstream society by maintaining its identity. Hurdal EV and Bandipur Bazar, on the other hand, has collaborative efforts and merge its identity into the mainstream's ones.

Knowledge sharing has different purposes for all four cases. Schloss Tempelhof has not only developed as a demonstration site but also emphasises on value dissemination like Jhong. However, the value dissemination in Schloss Tempelhof is more focussed through educational initiatives. For Jhong, it is more about being a part of the governance system and understanding and performing, reflecting its exclusiveness. Hurdal EV and Bandipur Bazar have remained as the demonstration sites for their ways of living- Hurdal EV on the eco-friendly built environment, and Bandipur Bazar for its Heritage conservation-based entrepreneurship. Bandipur Bazar has further scaled up to develop different training centres concerning heritage conservation-based tourism.

At a glance, all the cases feature shared values. However, shared values have both intrinsic and instrumental features. Schloss Tempelhof and Jhong have the intrinsic values that have

subjective experience. In the case of Hurdal EV and Bandipur Bazar, the values have instrumental values aimed at achieving certain objectives. They are contextualised as per the resource condition and mainstream institutional framework.

Furthermore, all the cases also have regional ties with surroundings, state government and NGOs/INGOs. However, their regional level ties are dynamic depending upon the goals of their collaboration. Schloss Tempelhof is more focussed on integrating their values in the mainstream society, Jhong is more exclusive on maintaining the distance with the mainstream society. Hurdal EV and Bandipur Bazar are more extrovert in adapting its values with mainstream society. Regardless of differences of relationship, all the cases feature the patterns of developing the socio-economic and socio-political relationship centred regional interaction.

## **6.1 Findings from the EV Research**

The literature reviews on EV and case studies of Schloss Tempelhof, Hurdal EV and Bandipur Bazar at the local level reveal that most of the actions are for solving problems. Methodologically, the findings relate to action conditions and respond to empirical facts of the actions and subjective experience of the actors:

In the case of sustainable development, actions are resource conditions based solutions. In other words, they are goal specific. However, the actions are never categorical as per goals in nature. They comprise a nexus of relationships between resource management, organisation, and knowledge sharing. Same actions can have different purposes. As such, a single action relates to all three themes of social interactions rather than goal-specific categories. The following sections present the findings on EV theory and practice based on the thematisation of the social interactions.

### **6.1.1 Resource Management**

The theoretical interpretation and case studies on EVs emphasise the resource potentials from the locational opportunity. For example, Bandipur Bazar identified the geographical opportunity for trading and later for tourism because of its heritage. The same is not applicable about Schloss Tempelhof and Hurdal EV. Schloss Tempelhof and Hurdal started with the ideology of intergenerational equity and community living together with nature, respectively. However, in the latter cases, there was a strong commitment to using resource potentials to realise their ideology. Hurdal EV, in more general, followed Bandipur Bazar's footprint being close to Oslo as far as possible.

### *Internal Structure*

Internally, EVs aim at the development of tools and methods on lesser resource consumption. The EV concept innovates within three main areas: technical system, entrepreneurship, and common-pool resources.

#### *Innovation in Technical System*

Technically, the EV concept points to the use of appropriate technology as a means for increasing the quality of life through frugal innovation in the case of developing countries. The environment based construction, in general, refers to eco-construction. However, in the case of developed countries, appropriate technology is used as a means to curb resource consumption without compromising the quality of life. For example, in Schloss Tempelhof and Hurdal EV, there are three areas of technical innovation: housing (that includes buildings and services associated with them), transportation, and farming. In the case of housing, the focus is on using energy conservation strategies, for example, passive house technology. For services like sewerage treatment, and energy supply, the focus is on using the natural way of decomposing and reusing or recycling them as far as possible. Innovation can also relate to the right choice of materials- both local/natural and artificial materials that can curb energy demands and are easy to maintain and recycle.

In the case of transportation, many EV theories focus on providing all the services within a community. One of the ways that EV theory focuses is on concentrating the necessary services in EVs physically. However, such a scenario can have a rebound effect in practice if EVs isolate from their neighbouring settlements. As such, in practice, EVs focus on regional cooperation requires commutation of EVs residents. Under such circumstances, EVs innovate in minimising commutation at the individual level. For example, Schloss Tempelhof and Hurdal EV have attempted to concentrate the food production within the community as far as possible.

In the case of farming, the EV concept attempts to use crop rotation as far as possible. Crop rotation is not new; EVs upgrade the farming system, especially crop rotation in practice through technical innovations, for example, waste-water treatment plant and composting techniques in Schloss Tempelhof.

Theoretically, the EV concept focuses on the use of local and recyclable materials. A new generation of EV, however, focusses on technical innovations that suit the changing lifestyle as well as surrounding, for example, *Aktivhus* concept in Hurdal EV. Practically, the innovated technical system is used as the central system and the traditional system as a supplement.

However, it can be either way. New technical and material choices can supplement the traditional material and technical system. The choice of materials and systems depends upon the context of settlements (social, geographical, climate), their preferences, the materials availability, and its relation to the surroundings for using the resource required for the system.

### *Viable Economy*

Conceptually, EV emphasises the production, storage, and consumption of the resources within its boundaries. In practice, EVs are good at promoting equity within their borders for resource allocation- an innovation for self-sufficiency. However, there are many chances of failures where EVs can fade out because of the lack of financial resources (Mare, 2000). As such, in practice, EVs are compelled to innovate in the local economy that on the one hand, maintains the balanced resource distribution, and on the other hand, comprehends the regional economy. For example, in Hurdal EV, space for smaller enterprises was facilitated for different start-ups. EV emphasises local exchange trading system, fair-trade products, and most importantly breaks the dependence on financial demands for further development (Dawson, 2006). However, in practice, EVs circulate stewardship and resources use within the community, which is often regulated through communal rules and regulations as in the case of Schloss Tempelhof. Theoretically, the EV concept aims to strengthen the local economy and discourages flow of resources outside EV in local currency (Dawson, 2006) to encourage equity. The local currencies are valueless outside their specific area. Theoretically, it ensures that the money remains in the community. Practically, this relates to the list of contributions to the community as monetary equivalent, for example, the voluntary participation in the farming for an equivalent amount of vegetables in Hurdal EV.

### *Control of Resource-Production through Common Pool Resources*

Theoretically, the EV concept emphasises on the concentration of services and common facilities on the community level as common-pool resources. The resources pooling eases out the higher economic pressure for their management. Services and facilities are clustered and networked due to the benefits of shared resources, interaction, and belonging to the greater identity. Practically, Schloss Tempelhof applies the concept of cohousing with shared facilities like a kitchen that brings down the price for lower-income families. It is one of the ways to offset the disadvantages of smallness. The social capital incurred thereby may help them prosper economically.

The resource-concentration allows sharing services like water supply, communication system, energy sewerage system, which saves not only the cost and space but also controls their overuse for construction and maintenance. The technologies and materials used are eco-friendly, biodegradable, or recycled and with a low carbon footprint. Reduction in resource consumption and sharing of resources also inspire the sense of community in a community-building process (Chitewere, 2006). Most of the shared resources are under communal ownership that facilitates cooperative behaviour and thought, for example, the cooperative ownership of resources and infrastructures in Schloss Tempelhof (see section 5.1).

### ***External Structure***

#### *Connectivity to Mainstream Economy*

In practice, it is impossible to concentrate all the services and facilities within a community. In today's globalised economy, individual settlements are too small to isolate from the global economy. EVs are relatively autonomous through their endogenous governance system within the region but are not self-sufficient. The greater need for resource sharing requires EVs linkage with the mainstream economy. One of the problems associated with integration to the mainstream economy is that EVs are often capitalised and may be under a strong influence of the mainstream economy once connected. The EV concept accepts the mainstream economy and linkage but also distance itself from them to maintain their resource autonomy. For example, there is reciprocity and danger of mainstreaming in the case of Hurdal EV. However, Hurdal EV is impacting Hurdal municipality. Hurdal EV is transforming into mainstream society. Similarly, Bandipur Bazar Bazar is also adapting its strategies and transiting into the mainstream society for survival.

Based on the findings, the bioregion shares broader services; for example, commercial zones, food, education, and other services. For example, in the case of Schloss Tempelhof, Bandipur Bazar and Hurdal EV are connected to mainstream society but have different objectives. (see section 5.1, 5.2, and 5.3). The mainstream linkages broaden the access of EVs to the regional level. For commutation, EVs emphasises on minimum possible distances and also exemplifies the concept of car sharing (or transportation sharing). The regional linkage also contributes to shared objectives. The EV concept supports various actions that, on the one hand, support the latent value of community solidarity. On the other hand, the linkage contributes to the regional identity; such as, 'the cider road' of Schloss Tempelhof, 'Eco-Cultural tourism' of Bandipur Bazar, and 'sustainable valley' of Hurdal EV, (see section 5.1, 5.2, and 5.3).

### *Promoting Local Entrepreneurship*

In the case of small and medium scale entrepreneurship, EVs can hardly be successful in the long run unless integrated into the mainstream economy. There is no middle ground between integrating or cutting all or most of the links and the global economy. Practically, many EVs have developed community-owned enterprises based on the principle of mutuality in the course of development. Such initiations can be scaled up to the mainstream development, as EVs' steps towards integration into the globalised economy. EVs promote to use profits to start-up and support other enterprises within the settlement: producer co-ops, consumer co-ops, credit coops, as well as co-ops for marketing, health, insurance, and any other necessary goods and services, for example, Findhorn (Foster & Wilhelmus, 2005). For instance, Schloss Tempelhof and Hurdal EV started as the cooperative based on income-sharing communities. In the later stages, the cooperative organisation forms have promoted the local entrepreneurship and transgress further to a regional collaboration with external actors, state and non-government agencies (see section 5.1, and 5.3). Similarly, Bandipur Bazar has promoted the local products from neighbouring settlements in their hotel entrepreneurship (See section 5.2).

The concept of using potentials and eventually developing resource-based entrepreneurship covering the broader region is an area to enhance the interdependencies between an EV and its surrounding. The interdependencies further highlight the idea of keeping intact the community solidarity but at the same time integrating into the mainstream development. In practice, EV adapts its concept of cooperative entrepreneurship to the broader bioregions. For example, Schloss Tempelhof has an agriculture field. However, it collaborates with the surrounding bioregion to get other necessary products like banana, coffee and others. The case of Schloss Tempelhof and Hurdal EV highlights the concepts like *rural-urban linkage* and *agri-urban* with them working in peri-urban areas. They have exchanged services and products with the urban centres (see section 5.1 and 5.3).

#### **6.1.2 Community Organisation**

Community organisation refers to an association of different roles based on the community structure to achieve certain goals that allow the execution of various activities and decisions related to resource management. For EV, creating a governance structure is crucial because they must create practices and internalised process that would guide their daily activities. Practically, the EV governance structure offers unity in diversity and, as explained earlier, facilitates different organisations, and promotes for local entrepreneurship.

### *Internal Structure*

EV aims to establish a community spirit within their institutions and normative culture to organise community life (Gu, Vestbro, Wennersten, & Assefa, 2009). Community solidarity means to create community identity and an organisation system, where there are equal chances in a democratic way of decision-making and commitment in achieving certain goals. According to Relph (1976), a person feels inside a place when experiences it, interacts there, feels safe, enclosed, and at ease. The more profoundly someone feels 'inside' a place, the stronger will they identify themselves with the place (Singh & Keitsch, 2014). Community solidarity also translates the identity of new and prospective residents (Borsos, 2009). However, the identity can take different conditions and meanings for different people, especially in the traditional settlements, where the embodied information and activities with traditional beliefs and values are profound. Therefore, the overall procedure pools experts, non-professionals contributors and other stakeholders to monitor the undesirable shifts like growing inequality, incongruence and rising exclusion (Singh & Keitsch, 2014).

The following sections illustrate how EV develops an organisation in the existing communal structure that integrates diverse stakeholders for a community living.

### *Decision-making and Conflict Management*

The consensus process is the core of ecovillage but often works only in theory (Kirby, 2003). Kirby (2003) claims that in practice, the consensus process is often a tool for the middle class only; the less privileged get marginalised, whilst the highly privileged hardly lives in EVs. However, the consensus process can go beyond the middle class if purposefully designed to foster dynamic interaction even with the less privileged strata of society (Andreas, 2013).

In reality, the decision-making process often halts due to people's discontent, and different perspective resulting in disharmony within the community, which sometimes questions the identity of the community and its solidarity. Conflict is inevitable and is a part of the community building process (see section 5.1 and 5.3 in their initiation stages). Based on Schloss Tempelhof and Hurdal, there are three areas of conflict: principle, relationships, and domestic issues. There are three kinds of dialogue spaces. The dialogue spaces are also the structures of the endogenous governance system on EVs and social norms regulated.

In Schloss Tempelhof, there are four dialogue spaces: village plenary, coordination circle, finance circle and five working group circles. The conflict concerning the principle is resolved at the highest level of organisational structure with the involvement of everyone. For example,

in Schloss Tempelhof, the village plenary is for conflicts related to principles. The conflict concerning relationships between different working groups is resolved within the coordination group. The coordination group forwards the resolutions to the highest level of organisational structure for rule changes and finance groups that mediate the financial interlinkage between working groups (see section 5.1). The conflict concerning domestic issues on resource-uses is resolved at working groups levels, which are at the lowest level of structural hierarchy. However, in Hurdal EV, the governance structure is governed under different forms: foundation, cooperatives, and working groups. They are all resource-based and purposeful rather than being a part of any EV governance structure. Most of the domestic issues are resolved at different working groups that each household are involved. However, concerning major relational and principle related issues, *Filago* and *Aktivhus* are required to be consulted and as such is not the proper democratic decision-making process. The contractor and the architect (external agencies) are the key decision-makers and are reasons for conflicts. It has also affected the way different groups coordinate and also the questions the authority of the residents' association.

Theoretically, EV emphasises the just procedures for defusing tension in the conflicts through a range of accepted measures. As such, individuals need to inherit the code of behaviour and conduct that helps them to act and interact accordingly for avoiding conflicts as far as possible. Practically, for example, in the case of Schloss Tempelhof, there is a code of conduct and behaviour as well as a common course like We Process. In any goal-specific organisation, all individuals or groups having the same rights or control is unlikely and has de facto variations of control. The hierarchy among different stakeholders depends upon the variations in control on values, feelings and experiences, facts and techniques (Singh & Keitsch, 2014). The stakeholders' hierarchy also relates to the development of the hierarchy of spaces for dialogues and decision making.

### *Internal Organisational Structure*

The most appropriate organisational form in EVs is the cooperative that facilitates equity and consensus decision-making process. However, in practice, EV offers three kinds of organisations that promote goal-specific collaborations: a foundation for resource stewardship, a cooperative for various entrepreneurship, and associations for working groups (see section 5.1, and 5.3). The foundation facilitates the value and resource to entrepreneurship. However, the foundation does not direct the kinds of actions but checks if the actions maintain the value pattern. For example, in Schloss Tempelhof and Hurdal EV, the central foundation provides



resources and values for cooperatives like a farming cooperative, and construction cooperatives. The cooperatives assure that there are proper norms that regulate communication and relationship among various actions and roles for a given purpose spatially. A purpose can be the output of coordination of different actions. For example, the farming cooperative in Schloss Tempelhof and Hurdal EV works in a principle of producer-consumer cooperative, i.e. group of producers (farmers) and consumers (those who use the products) within the community. Finally, the associations consisting of individuals perform the actions as per the rules and regulations of the cooperatives for concrete output. For example, in the farming cooperative, the producer groups and the consumer groups perform the actions as per the norms associated with them. In the case of Hurdal EV, the agriculture cooperative has various working groups: compost group, permaculture, and herb group, conservation, and storage group, Edimental group, berries group, the sign and joinery group, and Gilde (management) group. The internal organisational structure provides goal-specific organisation forms for diverse participation of social actors (see section 5.3).

### ***External Structure***

*Be a part of a broader region.*

Theoretically, EV tends to be autonomous and self-sufficient (see Chapter 2). However, in practice, EVs need external resources and knowledge. As such apart from aligning with its communal structure, EVs also adapt its organisation form to align with the regional politics and development governance structures. It is practically impossible for the EV concept to develop as ‘a world within the world’ and fend off the dynamics of socio-political and economic changes. Innovative actions in resource management are limited to social networks that adhere to alternatives to the mainstream governance structure. The EV concept emphasises collaboration in two areas: the economic and political arena. In the case of the economic arena, the focus is on pooling more resources and knowledge from the broader region to contribute to the collaborations. In the political arena, the focus is on aligning its values into the regional policy and goals. For example, the concept of *Aktivhus* aligned with the building principles concerning ‘the sustainable valley project’ (see section 5.3).

Theoretically, EV attempts to either integrate strategically into the regional spectrum or emerge independently. However, for the continuity, EVs have integrated the actions into the broader spectrum of socio-political and economic policies. For example, higher-level institutions like Kressberg region and Hurdal municipality have sustainability pressure. It means that EV

through grass-root innovations requires to take advantages of opportunities, like new resources attached to the shifting of policy agendas and adapt positively to the new mainstream. For example, Schloss Tempelhof was quick to respond to the demand for innovations in the cider road project. Hurdal EV was quick to respond to the concept of the sustainable valley of Hurdal municipality. The innovations may facilitate the opportunities to scale up the small level initiation into mainstream development. Aktivhus project is scaled up into the policies of Hurdal municipality's sustainable valley concept.

### *Facilitation of Collaborations*

The concept of regional cooperatives can provide individual entrepreneurs and groups with a broader identity to use in marketing, attracting investment, lobbying for regional development, and securing government assistance. Several collaborations are successful if local initiations like EV do not position itself at the centre, a position that relegates the concerning bioregion to the passive role on the outskirts (Andreas, 2013). For example, Schloss Tempelhof, Bandipur Bazar, and Hurdal put the regional contribution and identity at the centre and infer cooperation and actions based on their values and contribute to the regional identity. Schloss Tempelhof contributes to the Cider Road concept with its permaculture concept. Hurdal EV contributes to the sustainable valley and the built environment based on regional identities. Bandipur Bazar contributes to developing sustainable tourism for regional identity. Since their values are contributing to the regional values and identities, they are part of the broader regional socio-political and economic structure. They have sayings in the development of plans and policies (see sections 5.1, 5.2 and 5.3).

Theoretically, many interventions and collaborations aim at solving the community's problems rather than developing the cooperative based on diverse activities in a regional context. However, practically, such interventions often lack addressing the chain of events temporally and their manifestation in a broader spatial concern, such as in terms of regional relationships. The network development and cooperation with socio-political agencies and regional entrepreneurs facilitate to self-identify and self-introduce in the regional identity and to contribute to the regional goals. For example, Schloss Tempelhof has collaborated with various networks of social security (see section 5.1). Bandipur Bazar has collaborated with NTB and Alliance for Ecotourism in BECTP. Hurdal EV has also collaborated with economic partners, like Husbank, and construction partners, like HOBBL (see section 5.3). The organisational structure of EV appears to adapt to comprehend and integrate the regional identity and be a part of a bigger system- environment relation, spatially and temporally.

### **6.1.3 Knowledge Sharing**

The knowledge generated from various practices and implementation is exchanged and iterated across space and time, for its further applications. The EV concept and the associated actions anticipate the practical implications of the knowledge on balancing the human-nature relationship. As such, knowledge is contextualised based on who is using it, where and when. Contextualisation means meaningful interpretations of knowledge for the people using it at different spatio-temporal conditions. By contextualising the knowledge, EVs are making room for suggestions and improvement. They are also trying to be a part of human practices and habits.

The following sections illustrate the contextualisation of knowledge in theory and practice in EVs.

#### ***Internal Structure***

##### *Educational Initiatives*

The EV concept shares knowledge through the initiatives that have social and environmental goals rather than the economic goals. Among many, the EV concept co-creates and share knowledge through educational initiatives. It focuses on providing education materials based on context and values. Currently, educational institutions like schools or campuses and training facilities are one of the important social institutions. Students can learn about values' sustainability' that they can adhere to in their life. The educational initiative is based on EVs resource potential. For example, Bandipur Bazar has educational initiatives on hospitality entrepreneurship (see section 5.2)- or the core values of the community. Similarly, Schloss Tempelhof has a school with the curriculum on permaculture and intergenerational equity (see section 5.1). In practice, EV focuses on developing educational initiatives that collaborate theoretical knowledge and practical environment.

##### *Understanding Common Values*

In practice, EV contextualises interventions within its historical, political, and cultural settings. For example, Schloss Tempelhof base values on intergeneration equity, Hurdal bases on nature connected lifestyle, and common voluntary works, and Bandipur Bazar bases on heritage conservation and Newars' local institutions. Each context provides the dynamics of a creative repertoire of interventions. The interventions are framed in response to specific cultural, social, economic, and political constraints and opportunities. The chances of their success are minimal

if not mediated through the cultural values. The EV's philosophy and organisational structure mediate the cultural values that relate human and nature (Arkalo, 2014, cited in Olivier, p. 21). In practice, EV manifests values spatially in concrete goals, for long term impact and continuation. EV prioritises the local culture, diversity and indigenously to manifest the values. For example, in Bandipur Bazar, the values of heritage conservation have instrumental values for promoting sustainable tourism (See section 5.2).

The shared values bear knowledge- generated and exchanged across intra-generation and intergeneration in space and time. Knowledge is also integrated into development policies and strategies as far as possible. The integration has two advantages. First, knowledge is understandable for the residents once it integrates the local values and strategies. Second residents can participate as it does not require a radical shift from their lifestyle.

However, in theory, EV encourages in the normative discourses for transformative cultural change lining the self to the world at large-'glocal' (global-local) dialectic. The scenario points to the debate of communal values in the global definition culture.

### ***External Structure***

#### *Replication*

EV replicates knowledge through networks of dedicated stakeholders: Global (for example, GEN), regional, and national networks. The networks facilitate the transfer of the actions and knowledge to other geographical locations through outreach, education programmes, seminars, and training programmes.

EV replicates through two media: first a test-run of EV lifestyle; people experience the test-run life in the EV settings through multi-week programmes like seminars, training, and education programmes- offer knowledge in natural building and communication- and tourism; second, a virtual centre of the broader network that offer knowledge sharing and co-creation. For example, Schloss Tempelhof, Bandipur Bazar, and Hurdal EV have applied communication technologies to spread and replicate the actions and strategies in other geographical locations (see sections 5.1, 5.2, and 5.3). Some of the tools used are publications, referrals, online lectures, and similar initiatives worldwide.

#### *Scaling Up to the Broader Audience*

EV infers scaling up its local-level actions or governance practices beyond the communal boundaries. Theoretically, scaling up occurs if EV partners with non-EV organisations or

institutions to implement EV practices in new contexts. The alliances with the regional networks both with the neighbourhood settlements and the regional actors lead to the co-creation of knowledge and the development of the common interpretation of strategies into sustainable actions (Kellogg & Keating, 2011). The alliances require the common frame of discourse, and goals; commitments; and understand and respect each other's space and values. For example, Hurdal EV's shelter home is replicated into multiple areas (also non EV) through Filago company limited (see section 5.3). Similarly, Bandipur Bazar's concept of old house rehabilitations as tourist accommodation is scaled up as an approach in the mainstream policies to other older buildings in the Bandipur municipality (see section 5.2).

#### *Local Actions to Mainstream Integration*

EV highlights networks (regional, national, global) as the most appropriate metaphor to illustrate mainstream integration. Networks describe the structure, function and organisational relationships that evolve in relation to the mainstream development- that includes government institutions, line agencies, entrepreneurs, and investors, and ultimately the local community (see sections 5.1 and 5.3). There are higher chances that mainstream integration usually follows a top-down approach: higher authority determines local level goals.

However, mainstream integration is a local phenomenon and contrasts the top-down approach of mainstream development. Mainstream integration refers to the translation and adoption of local actions and associated values at higher governance levels-national or regional. Local actions inform local practices. Practically, the integration adapts the local level informal actions as per the institutional frameworks for replication in multiple areas. The local level initiatives manifest the development of higher policies. For example, there were changes in building codes in Kressberg regions (see section 5.1) and adaptation of the *Aktivhus* in developing housing codes in the Hurdal municipality (see section 5.3). The process reflects a bottom-up approach to planning.

As such, in practice, EV supports internalisation of the values and design heuristic in the intermediary projects, for example, *Jags region* in Schloss Tempelhof and sustainable valley in Hurdal EV. The intermediary projects transgress the conceptual boundaries between local actions and mainstream policies begin to integrate (see sections 5.1 and 5.3). Policymakers do not need to wait for the grass-root actions to initiate mainstream integration at the local level (see section 5.3). Policymakers provide the guidelines by including various actions as simple as engaging those grass-root interventions as part of the official policy research and

comprehensive planning. The guideline facilitates the external funding opportunities for local actions and the forums to networking between grass-root niches and mainstream (Boyer, 2015). For example, the sustainable valley project of Hurdal municipality is the translation and integration of Hurdal's concept. Hurdal also compromises certain elements of *Aktivhus* ideology to integrate into the surrounding environment and mainstream regime actor of housing prototypes (see section 5.3).

## **6.2 Findings from Traditional Community-Jhong**

In today's planning practices, interventions are either solutions-oriented actions at local levels (for example, afforestation) or the national/global concepts-oriented prescriptive actions (for example, SDGs). Many interventions are numerical target-oriented and focus on various actions and strategies to achieve a certain number of goals-a benchmarking. Such numerical goals limit the boundary of the settlement- an autopoietic system- and neglect the existence of relationships within a broader regional context. Practically, the rules of actions are different in regional contexts and have different strength in the social, economic, and political circumstances that goes beyond its isolation concept.

Communities of spatial locations (geographically based groups' meeting, a social need for its survival, for example, Jhong) differ with communities of interest (ideological initiatives, for example, EV) (Seyfang & Smith, 2007). As such, actions based on the geographical contexts and actions of ideological values may not always be socially cohesive. Ideological value-based actions (for example, EV concept) define themselves as an alternative to the mainstream, which makes outreach and integration difficult. The scenario contrasts to the EV practices, which require a degree of congruence with the mainstream practices and context. For example, Hurdal EV and Bandipur Bazar are responding to the mainstream policies by adapting strategies accordingly. Schloss Tempelhof is contributing to the regional policies in developing regional identity through its initiatives.

A corollary is that lack of compatibility between interventions like EV and the mainstream limits the outreach and integration of EV into the mainstream (Seyfang & Smith, 2007). The EV concept illustrates various actions that are performed at the local level and concerning its mainstream institutional frameworks to solve certain problems. Whilst, the real-life case- for example, Jhong, illustrates the actions' longevity and continuity of the value pattern for a community's survival. As such, the integration of any EV actions into the mainstream society requires the interventions to be congruent to the mainstream institutional framework and the

local values. The challenge associated with such sustainability interventions, for example, EV, is its inability to continue sustainability, spatially and temporally. Despite providing information on the actions at the local level, EV confronts challenge to develop the local values-based actions in coherence with the mainstream policy. The coherence is vital for a community's longevity (temporal aspect) through physical manifestation (spatial aspect).

The case of Jhong illustrates two important aspects that help to mainstream and contextualise policy-based local actions and at the same time maintain its shared values.

### **6.2.1 Cultural Value**

EV confronts the challenge of the right interpretation and manifestation of sustainability in actions and policies; the challenge infers difference in manifestations of cultural values in local action into mainstream policy. The challenge is also on the embeddings of sustainability as a latent value in activities, practices and way of thinking.

EV integrates cultural value based on two roles of culture in sustainability framework- an instrumental role to socio-economic contribution and a semiotic role as the symbol of sustainability (see section 2.6). Culture's instrumental role obscures cultural values relation with nature and understates its connections with broader societal issues. Researchers, for example (Borsos, 2009) and (Olivier), suggest the use of traditional knowledge as the means to socio-economic uplift in older settlements to cope with the growing socio-economic demands as in Bandipur Bazar (see section 5.2). Culture's intrinsic role symbolises sustainability as a cultural value of the community and restricts its interpretations of ecological relations. Most of the EV ideologies at the beginning, for example, Hurdal EV associate sustainability as their cultural value-living with nature (see section 5.3).

Jhong illustrates the mediating role of culture (see section 2.6) by associating cultural values to actions, that is the cultural values have both intrinsic and instrumental values. Cultural values interpret and process the goals and policies into locally understood physical manifestation. The cultural values provide a lens for residents to connect the community with its environment. The cultural value- more than a semiotic value of a human-nature relationship is the part of their lifestyle. The cultural values appear as a nexus of loosely integrated practices, institutions and mechanisms that deal with the production, distribution, application, and preservation of collectively shared meanings related to the community resources. Cultural value also embodies the explicit and implicit rules that govern the relevant process of interpretation as well as practices related to the community-resource relationship. At the same time, the cultural values

provide the means to attain different sustainability dimensions-environment, economy, and social sustainability, for example, forest conservation, tourism, and female inclusions, at the local level.

The cultural value does not limit to certain roles and actions organised towards resources. It embraces tensions and internal contradictions of the social and spatial world, continues or subverts its norms of behaviour and power relations, and provides loopholes for an escape from its everyday routines- for example, the role of *Ama Samuha* in Jhong for resource management (see section 5.4).

The following section illustrates two ways of developing cultural value-oriented actions: contextualisation and subjective experience-that capture the mediating role of cultural value in the social phenomena.

### *Contextualisation*

Traditional settlement's structure has people-centred value- what residents usefully perform in an organisation under conditions-and maintain that pattern of interactions, for example, resource management in case of Jhong. The value differentiates a nexus of norms through endogenous institutions that regulate practices. The cultural value contextualises the projects of different origins into implementable actions when the project integrates local practices and rules in the interventions; the community structure intersects with project's organisational structure; the project's value intersects with the core value of the community. For example, the ACAP's nature conservation is a result of the contextualisation of the project goals as per the local practices, endogenous governance system, and their core values (see section 5.4).

Any interventions on resource management prioritise values-based practice and policy at different levels- contextualisation of knowledge on resource management. The starting point for any interventions in a local context is with three basic areas of investigation: what resource management means in the local context; how a community can know that resource management is taking place; how a community assesses resource management.

For the first question, resource management means the efficient allocation of the resource under the organisational structure and norms to achieve goals. For the second question, a community knows it is taking place efficiently if the responsible groups in the organisation are performing their roles and responsibilities in resource management. For the third question, a community assesses resource management by evaluating if the groups or individuals have violated the norms associated with resource management.



In the EV concept, the themes- resource management, community organisations and knowledge sharing are the patterns of goal-oriented interactions that different actions transgress as a whole system. It is one of the key challenges associated with EV concept on exploring the interactions of how an action can transgress across different areas as a whole system. In Jhong, the patterns appear as the parts of a bigger nexus of interactions embedded in their values. The patterns of social interactions are specific to Jhong and other neighbouring villages. As such, mainstream policies, like ACAP, transgress the rhetoric or abstractness of the EV's sustainability to outline the process that allows contextualising the concept at the community level- for example, endogenous governance structure based forest management. In EV's sustainability, this means that a mainstream policy facilitate the community, like Jhong, to outline or response to the three queries on EV's sustainability through perceivable concrete goals: what local actors perceive as sustainability; how a community know that sustainability is taking place; how a community assesses and ensures that the interventions are in line with their values.

Methodologically, this means to face the dilemma between objective facts and subjective experience for sustainability interventions. The prescriptive actions have the objective ends, like maintaining forest cover in Jhong and ACA (see section 5.4). Such goals have different subjective notions in a community that may not have objective facts. For example, in Jhong, forest maintenance means to own persistent timber resource for future use. The synopsis situation- when two ends cross- is the selection of proper actions for the goal-selection of means. Despite differing in episteme of the ends, the selection of actions has certain goals, for example, forest conservation, and is concrete. Hence, the contextualisation enables the local people to select the appropriate actions as a means to achieve certain goals (subjective of objectives)—theoretically, the ability to establish means-end relationship irrespective of the diverse knowledge claims of the ends. Contextualisation facilitates the local people to choose practices and actions based on their subjective value; not only had the prescribed actions based on the sustainability goals.

### ***Subjective Experience***

A subjective experience refers to the emotional and cognitive impact of human experience and a product of the individual mind. In Jhong, individuals' subjective experience tend to maintain the pattern of cultural values. It contrasts to the value-integration in mainstream policies like ACAP for specific empirical goals. In mainstream policies, cultural values have instrumental characters, like nature conservation. However, traditional settlements, like Jhong, create and

maintain enviroing conditions that maintain the local people's subjective experience of the ends as a pattern of value maintenance manifested in those concrete ends.

The EV concept focuses on creating solution-based practices (see section 2.3). For example, in Hurdal and Schloss Tempelhof, the actions and interventions are solutions focussed on the environmental and social issues (see sections 5.1 and 5.3). In Bandipur Bazar, the focus is on solutions that provide economic achievement (see section 5.2). The decision about the qualities of practices and behaviour is judgemental in terms of the goals achieved. People have limited engagement at solutions or the recipients of the output: limited engagement leaves people with limited opportunities to influence the whole process of making solutions. The actions and policies are the results of the consultation about the proposed changes or the communication about actual changes that had taken place and are asking for the local people's views on them. For example, *Aktivhus* in Hurdal, rehabilitation of traditional houses in Bandipur Bazar and Free school in Schloss Tempelhof are the results of such consultation between local and mainstream.

The ambivalent picture of individuals' involvement is the foundation of subjective experience. As such, subjective experience is often regarded as the lack of sufficient expertise to contribute, and are accompanied by training programmes to local groups about technical innovations in a project with strategic responsibilities. Such processes tend to emphasise the objective processes and knowledge over the subjective experience of residents- for example, permaculture in the case of EV (see sections 5.1 and 5.3), and tourism in the case of Bandipur Bazar (see section 5.2). It does not necessarily mean that such programmes are not useful. However, they should not demean the local people's experience, for example, crop cycle in Jhong.

Jhong highlights the scope of subjective experience in actions based on three situations: stewardship of the resources; legitimate authority of the decision-making process; consultation about individual preferences situated within the broader social contexts. The three conditions are also available in the EVs (Schloss Tempelhof, Hurdal and Bandipur Bazar); however, it differs in the interpretation. EVs and Bandipur Bazar refer to resource stewardship as a means of resource use. Jhong refers to the condition that facilitates choosing appropriate means of resource management. Ecovillages refer to the authority of the decision-making process in the community organisation to a strategy for individuals' equity in the decision-making process. Jhong refers it to the state of greater participation of individuals. Finally, EVs and Bandipur Bazar refer the consultation with individuals to give the knowledge. Jhong refers to the consultation with individuals for their contribution to knowledge.

The EVs and Bandipur Bazar prescribes definite goal-oriented strategies and actions. On the contrary, Jhong facilitates the opportunity to choose appropriate means based on the cultural value to fulfil the goal or outcome. Methodologically, EVs and Bandipur Bazar prescribe objective means- goal-oriented; Jhong facilitates the subjective experience of the ends-process oriented.

### **6.2.2 Regional Cooperation**

The EV concept limits the concept of region to the relationship in geographical boundaries in political/administrative scale or environmental scale, for example, Hurdal EV of Hurdal municipality and Schloss Tempelhof of Kressberg region, or at the global level part of networks and alliances like GEN.

A region is often taken within a geographical boundary to query relationships in terms of economy, ecology or culture (Horlings, Battaglini, & Dessein, 2016). Sometimes, a region is defined in terms of the hierarchy of national governance that often bounds the space to certain national/cultural groups. A region is often viewed as a level between the local and national, a notion accepted by planners, engineers, and others based on maps and drawings and scale (Bekerman & Kopelowitz, 2008). For example, Schloss Tempelhof is considered as a part of the broader 'the cider road region' or Hurdal as a part of 'the sustainable valley'. Similarly, Bandipur Bazar contemplates a centre of Bandipur municipality covering other smaller settlements.

The notion of the region in Schloss Tempelhof, Bandipur Bazar and Hurdal EV reflects the action-based interaction bounded in concrete geographical space. EV perceives region as linear static relationship covering broader geographical space but not in terms of a process of building dynamic relationships for dynamic goals. As a whole system, the relationship with the surrounding hinges on how individuals act in a geographical boundary based on the ecological and state-driven relationship. The geographical notion of the region sees interventions in terms of output bounded actions and strategies in a physical space.

This notion lacks the spatio-temporal aspect; for example, how a community relates to the neighbouring settlements at different times upon different conditions, like socio-economic and political changes-how a boundary change. Here a region refers to a spatio-temporal object whose existence is based on the beginning and end of the relationships at a certain spatial location at a certain time. As such, a region exists as an organisation for a specific goal. This

notion of region highlights the causal relationships between events-a community surrounding interaction happens under certain conditions.

In traditional settlement like Jhong, the region maintains the dynamic process of the social relationship-building process as a series of events after changing scenarios. The notion of a region in Jhong is a part of the production and reproduction of different interactions under various external influences, like socio-political and economic changes across time. The Jhong's region exemplifies the conglomeration and dispositions of social relations. The boundary, i.e. the state of the region depends upon the relationships and organisations for the goal. For example, the regional boundary of Jhong with its neighbouring settlements depends upon the kind of social relations with them on the types of resources. This means that the regional boundary for water use differs from that of pasture use (see section 5.4).

The region in traditional settlement represents a process that is performed, limited, symbolised, and institutionalised through numerous practices, and discourses that are not inevitably bound to a specific scale. The regional boundary is identified based on narratives and associations than a fixed geographical entity. As such, a region depends on dynamic human agreement and institutions rather than on static ecological relationships or administrative division. Institutions are the structures of rules, power, and trust/ normative components of subjective interpretation-in which boundaries, symbols and institutions merge through material practice, as in the case of Barhagaun region.

EV limits regional cooperation to individual minds to create inter-subjective meanings in the bound geographical area. However, the traditional settlement identifies regional cooperation as a result of social relationships and practices. Furthermore, a region is not only the result of autonomy and evolutionary process of subjective meaning-making but also an expression of a continuous struggle over the meanings associated with stewardship of resource, representation, fairness and crucially survival through social relations. It indicates the region as an enviroing condition for the community that provides the resource condition to the interacting community. The interaction between the community and its surrounding regions triggers for the community to act and express its identity over the resource management and condition.

#### *Social Relationship Centred Regional Cooperation*

In many cases, planning interventions, like administrative divisions, fuse the relational region through spatial practices, mostly geographical tools. Such a process often has a rebound effect. Regional associations may cohere to the geographical region, but that does not necessarily

happen in every case. For example, Jhong was a part of the Upper Mustang area in ACAP based on the geographical parameters (see section 5.4). However, Jhong never considers itself as a part of the Upper Mustang and has a strong social tie with a traditional regional institution of the Barhagaun region-a part of the Lower Mustang. Jhong is treated differently to other communities in the Barhagaun region.

In EVs and Bandipur Bazar, regional cooperation is expressed in the exchange of materialistic resources. The regional cooperation is linear, static and has higher chances of getting dissolved once the resource condition changes or once the goal is achieved. For example, the shared value of ecological living of Hurdal EV is defused into the sustainable valley concept. Similarly, the Bandipur Bazar's values of the trading community have dissolved after the new resource-tourism. However, in a traditional settlement, regional cooperation is expressed in overlapping values and consequent relationships. The actions evolve or change based on the resource conditions but at the same time, set the goals ensuring the maintenance of overlapping values (see section 4.4). The interaction once builds for a purpose instigates an organisation-formation for output at similar resource conditions. The process refers to the continuity of the relationship. The continuity of the relationship for concrete goals is important for sustainability across different temporal scales.

The starting point for regional cooperation requires three areas of inquiries- what regional cooperation means to a community; how a community know that regional cooperation is taking place; how a community assesses the regional cooperation.

The inquiry areas relates to the dynamics of the social relationship. It is also the beginning of any sustainability projects in a real-life scenario. For the first question, regional cooperation for a community means if a community has overlapping values with surroundings in social relationships for a given goal. For example, Jhong's value is overlapping with the value of surrounding communities like Putak or Chyongur. It has social ties in managing the forest resources (see section 5.4). A community knows that cooperation with other communities or stakeholders is there if the community is maintaining its territorial use of the resource and is respecting other communities territorial concern by not interfering with others for the shared resource. For example, Putak does not use the water in Jhong' turn. Finally, a community assesses the regional cooperation based on the normative components associated with the regional cooperation-if the roles and responsibilities follow the normative value. The institutions constitute norms in other communities and stakeholders' roles in an organisation. The norms also resolve any conflict between the participating communities and local people.

If the norms are not able to resolve any conflicts, this means that regional cooperation is not functioning.

In conclusion, regional cooperation is the process of developing a social relationship. The process includes the incorporation and evolution of various practices and then institutionalising through norms for the value maintenance in each participating communities or stakeholders. The relationship maintains the normative value that facilitates different regional level organisations for different outputs. For example, Jhong cooperates with different communities within a region through different kinds of organisations for resource management, forest, water, and pasture. The regional boundary varies according to the purpose of the organisations. Despite the variation, the cooperation continues through the evolution of various actions and strategies based on the resource conditions like changing socio-political and economic scenarios, and with it, regional boundary too.

The policy interventions require covering the dynamic social relationship and the regional boundary, not only limited to physical boundaries. The mainstream policy, for example, ACAP, defines a region as the process of social practices, relations, and discourse, and covers a wider network of cultural, economic, political processes and divisions of labour.

Methodologically, this interpretation of the region is based on the subjective experience of individuals. The regional cooperation has a goal; however, the goal has different subjective interpretations depending upon the values of participating individuals, groups, or communities. The regional cooperation is not about the exchange of resources only. Such cooperation limits the boundary between the communities in the static geographical scale, for example, political and administrative divisions.

In regional cooperation, there are different participating communities, institutions, groups and individuals, and the value-based norms govern their roles and responsibilities. A region relies on the institutionalisation of its roles through the interaction of institutions in the allocation of resources. The regional boundaries are based on the negotiation among different communal institutions in the effective distribution of resources. For example, in the Barhagaun region, the resources like water, forest and pasture area, are distributed among different communities through the institutionalised social practices, like the role of the *Ghempo* (see section 5.4). The rules and acts are social facts because they can generate action if local people believe them and have roles in the governance of the resources.

## 7. CONCLUSION AND IMPLICATIONS

This chapter revisits the research questions and outlines the contributions of the PhD research regarding theoretical and methodological implications in mitigating the sustainability gap between actions and policies in the context. The chapter also presents implications by reflecting on his role as a practitioner in the research and analysing social phenomena. The chapter also presents the future implications for planning initiatives.

### 7.1 Conclusion

There are multiple interpretations of sustainability in different forms and contents at different levels, local and global. Consequently, the policy-action gap was more profound for the practitioner's working on the ground, who interprets the action as an entity in two contrasting aspects: communal values and mainstream policies. The gap can be mend through Ecovillage concept by understanding policy-value-action in the holistic thinking of an environment-whole-part relationship.

The following section revisits the research questions and Ecovillage concept's contribution to understanding values and policies through overlapping patterns of social interactions.

### 7.2 Revisiting Research Questions

The ecovillage concept as local level sustainability identifies resource management, community organisation, and knowledge generation and sharing as the overlapping themes that were linked both in theory and practice. The themes have facilitated understanding of the sustainability gap between action and policy through different patterns of interactions, internally and externally in four cases (see Chapters 5 and 6).

**Overarching Research Question: - How can ecovillage mitigate the gap between policymaking and action levels in sustainable development?**

EV's sustainability present the interpretation dilemma in an action-policy gap. An action is designed and implemented in response to a policy induced change in resource conditions. Conceptually, the policy implies an action as a part of a series of events- a causality process started by change in resource conditions. The local values then choose the necessary means to execute the actions so that new goals are set and achieved as solutions and maintain their value from being changed. The Ecovillage concept considers the action- policy relationship and the subsequent goal settings as an intermediary entity at the local level. Methodologically, it

means to interpret forms and contents of sustainability in actions and comprehensible to the value, internally; to bring actions into normative order, comprehensible the mainstream policy, externally.

In the ecovillage concept, there are patterns of social interactions that could transcend across different knowledge claims of actions and policies. The themes: resource management (RM), community organisation (CO), and knowledge sharing (KS), thematise the social interactions both at community and regional levels and have contents of sustainability in different forms. There are higher chances of social interaction-based actions leading to achieving any goals sustainably. Understanding EV's sustainability through the relational approach in terms of themes of patterns of social interactions broadens sustainability, unlike the prescriptive goal-oriented sustainability concept.

Furthermore, KS is crucial in relating actions to value and policy. From the planning perspective, based on the EV concept, execution of an action is related to:

1. Making an appropriate choice of practices and activities that can lead to the efficient management of resources in each condition;
2. defining appropriate roles of the participating actors in an association for performing in action;
3. interpreting and relating the practices, activities, and the roles associated with the actors in generating knowledge and sharing and transferring them for different spatial and temporal conditions.

Internally, action constitutes value-based practices and activities concerning the roles of the actors in a social organisation. It eventually generates the knowledge in transferrable form and contents, for example norms. Externally, an action is responsive to the policy conditions. The policy facilitates the community to develop its resource potential through collaboration in the mainstream; eventually, generate knowledge in the forms and contents that are transferrable through networking.

#### **a) What keeps ecovillage together?**

Internally, the cultural values keep the ecovillage together. The EV concept ascertains that the value is intact through social norms in actions execution. The local actors are assigned different roles to form an association based on the norms to achieve a goal. The local actors inherit the norms as a part of the socialisation process, for example, through education initiatives and



rituals. The norms facilitate the actors to position their roles and to expect other actors' roles (or no roles) in an association.

Externally, EV maintains its regional cooperation through cultural value bound regional identities. However, regional cooperation is dynamic and depends upon the kind of collaborations and their purposes in resource exchange. EV collaborates with surrounding and subsequently contributes to developing the regional identity. However, it ascertains that their values are intact, and their actions respond to the changing resource condition through policies.

The notion of the culture differs from the quadruple bottom line model of sustainability: The model defines culture as one of the pillars of sustainability and sets the goals accordingly. The cultural value in the Ecovillage concept appears as a part of the belief system, which interprets the goals and actions from the local context and then relates to the other three dimensions of the sustainability. The cultural value has a mediatory role in achieving local concrete goals rather than being a concrete goal. As such, the cultural notions in the EV concept have both intrinsic and instrumental values, respectively. The cultural values do not limit to specific roles, but itself has dynamic interpretation while keeping the ecovillage together.

#### **b) What factors do affect ecovillage's sustainability?**

EV's sustainability is affected by the process of selection of means for the action execution depending upon the conditions for setting goals in a situation. Internally, sustainability is embedded in the form and content of EV value that determines the selection of means for actions execution. Based on EV's three themes, the sustainability of any actions is influenced by the following aspects:

1. Value-based measures that allow the efficient use of the community's resource;
2. norms governed the roles of social actors to form a collectivity to perform actions;
3. interpretation of the practices, activities and roles in the form and content of value-based knowledge, for example, in norms.

Externally, sustainability is embedded in the form and contents of a policy governing EV that causes the actions. Based on EV's three themes, the sustainability of any actions is influenced by the following aspects:

1. Regional cooperation that allows resource exchange and eventually connects to the mainstream economy;

2. the network-based organisational structure in the community that facilitates regional level collaboration;
3. scaling up the local actions to mainstream development by translating, transforming and transiting the knowledge into replicable forms and contents.

**c) How are these factors interconnected?**

Conceptually, action interconnect internal (values) and external (policy) aspects. The action with generate concrete output as the entity that both policy and values can comprehend despite different knowledge claims. Methodologically, values comprehend action as a subjective experience and policies comprehend action as an objective condition. The knowledge generated and shared during action execution interprets the relation between value-action-policy that transcends across different knowledge claims across space and time. The action-value-policy forms a loop of interpretation in their respective epistemological contexts.

In the EV concept, internally, the knowledge generated on resource management, community organisation and actors' different roles are interconnected, stored and institutionalised in the norms. Such social norms facilitate the subjective experience to the social actors of any concrete goals. Externally, the knowledge generated on resource exchange, and a subsequent organisational structure are stored in the contents of concrete goals that are understandable to the mainstream institutional actors, like professionals. The knowledge in the goal settings is transferred in the policy to understand the objective conditions, like socio-economic, cultural and environmental conditions. The transfer and interpretation of knowledge forms a loop of interconnections and the continuous process of institutionalisation, both at the communal level in developing social norms and the mainstream institutional framework. Both these institutions have different knowledge claims but are interconnected through the concreteness of the goals, and the means selected to achieve them.

### **7.3 Reflection on Ontological, Epistemological Commitments and Methodological Implications through Hermeneutics**

During the research process, different local actors had multiple realities and meanings for the same action. Under such circumstances, the researcher is interpretivist and co-creates knowledge through a hermeneutic approach.

The EV's sustainability explore for sustainability embodied in the belief system that the EV actors held about the environment in different situations. The exploration not only interprets

actions or practices concerning sustainability but also motivates actors to engage in interpretation. The interpretations of EV's sustainability are based on the local actors' belief systems that have symbolic meaning or significance with origins in the past. The belief system binds the actors together in inter-subjective social realities. It further evolves through encounters with new situations, goals, experiences, and other beliefs that have historical and present significance. As such, the interpretations of EV's social actions reflect the meanings they hold for the research and the meanings the actors make out of the interpretations.

The researcher transcends across the actors' and his belief systems and interprets them based on the research's significances. The reconstructed interpretations of EV's sustainability lead to new findings or different meanings. The new findings are dependent on the actors' perception of sustainability through their actions concerning the goals and their belief systems, and the researcher's belief systems guided by sustainability theory. The same actor may construct different interpretations of sustainability in different forms over different time or different space. Similarly, different actors may have different interpretations at the same time or the same space. As such, sustainability takes different forms based on the purposes of those actions at different space and time. For example, the embeddings of sustainability values have different interpretations in different spatial locations.

The interpretations made at different spatial situations are perceived, on the one hand, as diverse beliefs-based interpretations in a spatial situation, and on the other hand, as an adaptation of interpretations over different spatial situations. Different spatial situations represent the discourse between the researcher and the actors at varying discourse conditions, geographically and communication-wise. The actors' interpretations of their context may differ from the researcher's interpretation of their context. Different spatial situations can contribute to an increased awareness of one's beliefs and the challenges associated with them. The researcher, as a practitioner, influence spatial conditions of discourse, eventually influencing belief-based interpretations. For example, in Hurdal EV, and Schloss Tempelhof, the researcher presented his context and the beliefs on sustainability through illustrations that influenced the interviewees to reflect on their own beliefs and context.

Similarly, the interpretations expressed at a different time, on the one hand, represent the actor's interpretation and recreation of different findings for different resource conditions. On the other hand, they represent the continuous reconstruction of the findings across time. The temporal situations increase the actors' awareness of the content and meaning of actions and practices. For example, in Jhong, the researcher facilitated the discourse on the myth about the

compact planning of house and materials comparing with the climate-responsive built environment. The discourse at different seasons (summer and winter about the vernacular construction technology) made the key informant more aware of the different practices and associated myths.

The spatiotemporal situations of uncertainty and diversity direct the researcher's role in generating different knowledge claims of the EV's sustainability. The researcher requires to create the research world for framing the problem and multiple meanings of sustainability, which the researcher comprehends and then interprets into the research context. Sustainability appears in different forms and contents of the social constructions, and sometimes the actors do not necessarily know the term sustainability (see Chapter 1; sections 5.2 and 5.4). The evolution of multiple constructions requires a discourse context that the researcher requires to create.

The coexistence of different interpretations is justified in either consensus or disagreements between the researcher and the actors. The justification is based upon the social, political, cultural economic, ethnic and gender aspects that differ according to the actors. The knowledge and its justification subject to continuous revisions unless they are reflected in the physical entity. The changes are most likely to occur when different interpretations juxtaposed in a discussion context. Nevertheless, what is clearer is that both the researcher and participants interpret the same sets of physical entity of actions and its concrete ends. As such, the researcher focuses on concrete goals, means, associated norms, and their relevance to the research, rather whether their interpretations are aligning with the sustainability theory or not.

As such, the key to generating the knowledge is through cohesion and consensus-based knowledge through manifested inter-subjective resources, for example, in strong prevailing social norms and institutions in a society. The integration of such strong social norms and institutions-that make sense of the actions and practices- combines with much more conditional, fluid, and sociological understanding of knowledge. Such norms are not the accumulation of objective truths but are the process of developing and revising inter-subjective consensus on empirical matters of sustainability amongst actors sharing common local values.

The research conditions highly influence the coexistence and consensus in the discourse among the actors (different stakeholders in the community with different hierarchical positions) and between the researcher and the actors (see section 3.2.1). The existence of norms and institutions shows the structural hierarchy in society. The norms and regulations also influence

the researcher's position within the research context. Furthermore, the researcher's values influence his actions within the field. Under such circumstances, the researcher confronts the value dilemma—a practitioner's dilemma on the field.

The consensus-building in a myriad of inter-subjective beliefs requires integration or considers social norms and institutions that act as an adjudicator in case of conflicting beliefs and differing knowledge claims. In the case of differing knowledge claims in the institutional and extra discursive context, those meanings and beliefs that relate sustainability acquire and retain character. For example, in Jhong, the actions in forest management had various interpretations: an ecological concern of forest conservation; a socio-cultural concern for the development of organisational structure (see section 5.4).

In knowledge co-creation, the researcher (subject) recognises a meaningful component of actions and transferred into his system of values and meanings. Epistemologically, the researcher develops an explanation that supplements the researcher's propositional knowledge, for example, sustainability theory. The researcher accomplishes the central empirical challenge of reconstructing and capturing the meanings of actions by understanding action as an accumulation of means to achieve concrete goals in a series of events at a local level. The scenario makes the means-end relationship and its concreteness more relevant for interpretation for the researcher and the local actors. Alternatively, the concreteness of the goals and the means to achieve them becomes a consensus agenda among the myriads of interpretations.

The distinct set of ontological and epistemological commitments also sets interpretations different from other approaches to explain the EV's sustainability when it comes to methodological choices. The methodological implication is not only to transfer the field data into the research context but also reverse the researched information back into the field context. The implication even makes the concreteness of the ends and the means to achieve them more relevant for the research. The relative experience-based meanings of the actors are juxtaposed into the form of research knowledge and then again returned to the contextually understood lived-experience through the physical entities. The practitioner's transcending role in handling the dilemma of two different kinds of knowledge claims of the EV's sustainability accentuates the relationship between the interpretations and the beliefs systems through a physical entity rather than coming to the point of common understanding.

As a reflective practitioner, the researcher interprets sustainability, in various actions and concrete manifestation by relating the interpretations to the belief systems. The multiple

contextual interpretations of sustainability open discourse among the local actors and the researcher, for a period. It is possible that the actors, over a period, become aware of the sustainability in their actions and interpret their actions relating to sustainability. This involvement in facilitating and participating in the discussions process may bring passionate participation of the researcher, creating the expectations beyond the researcher's expertise, and competence and scope of the research (see section 3.2.1).

For the researcher, the methodological implication is to accumulate knowledge through meaningful, concrete components of the actors' actions. The researcher needs to cast either as participant or facilitator or both depending upon the situation like a reflective practitioner comprehends in practice. As a participant, the researcher reflects on the actors' understanding of sustainability through their interpretations of actions. As a facilitator, the researcher orchestrates the enquiry process in making the actors aware of their beliefs about sustainability by allowing them to reflect upon certain concrete ends. The ontological position based on the practitioner's lens provides the researcher with an authoritative role; the researcher's value influences the process, especially while picking the means-end relationships in the concrete goals. The researcher develops an overarching theory and a generic method of inquiry to restructure an uncertain situation, for example, the EV's sustainability through different goals. The methodological implication requires both theory and its associated method to restructure what is going on so that the researcher can explain it. The pattern of themes reflecting the means-ends relationship facilitates the construction of theories and methods for the EV's sustainability and concrete goals (see Chapter 3 and Chapter 5 for its application).

#### **7.4 Contributions to Understanding Sustainability Gap at Conceptual and Methodological level**

The PhD research illustrates the researcher's dilemma in working in different epistemological positions. Based on the underlying philosophical facts, the dilemma is the consequence of different disciplinary concepts of sustainability. However, the concepts often lack the empirical evidence of social actors. They have their value-based system of verifying the facts. The research emphasises on the ontological stance on which the research can transcend across the scientific logics and actors' empirical evidence-a role played by a reflective practitioner in Jhong. The reflective practitioner facilitates understanding sustainability at a local level by summarizing theory and empirical evidence under a common analytical framework.

The following section highlights the contributions to understanding the sustainability gap at the conceptual and methodological level presented in Chapter 1.

**Conceptual level:** - A conceptual scheme on sustainability needs to facilitate the subjective point of view. The researcher understands actions as they appear from the standpoint of the actors, not as they might appear to anyone else or any supposed impartial observer (see section 3.2.2). The conceptual scheme represents the situation of actors' interpretation- under what condition the actors make such interpretations and choose the actions. Only then the actors become aware of actions, give definitions, and consider their features in deciding courses of actions. The relation between situation and interpretations is crucial in understanding actions.

The scenario is different for most of the conceptual schemes. For example, the triple/quadruple bottom line of sustainability as a conceptual scheme is an objective goal-oriented. The researcher requires interpretation in a restricted situation based on already goal prescribed conditions: Economic, Social, and Environmental. However, these conditions may have different connotations for diverse actors, and the goal specificity restricts their understandings into narrow ranges. It seems that the 'sustainability gap' that the researcher has perceived is the lack of representation of the situational dynamics of interpretation in the conceptual scheme.

The conceptual scheme of value-actions-policy relationship represents the adaptation of the social system-environment relationship. The action becomes the central frame of reference and is an entity of interaction between value and policy. The conceptual scheme represents a situation that contains action as an interface between a value -policy interaction, as illustrated in Figure 23 below.

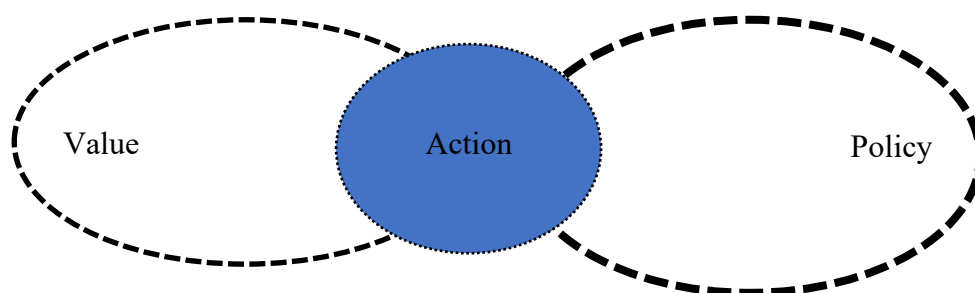


Figure 23. Conceptual scheme illustrating action at the interface between value and policy after adapting social system-environment relationship

The key features of the conceptual scheme with action as the frame of reference are as follows:

1. The above shown conceptual scheme indicates a relational perspective between policy-action-value for an actor. Action is the entity of interaction between cultural value and policy. Sustainability is embedded in action as a part of social interaction between value and policy. Sustainability is relational-how action interpreted concerning value and policy. It has different facades embedded in the action as a part of social interaction in each context: Sustainability is contextual.
2. The interaction between value and policy is selective (graphically illustrating the interface between value and policy by the dotted lines). Value and policy have different knowledge claims and are dynamic. Their interaction is possible when there is some concrete entity that both can comprehend, or that has physical manifestations. Actions that do not have physical manifestations cannot bridge values and policy. As such, sustainability embedded in social actions has concrete manifestations and as a series of events concerning the decision-making process rather than spontaneous reaction.
3. The action involves a state of affairs/and an end or goal- that actors wish to bring into being and maintain existence. This interpretation of sustainability has future connotations, which is also in Brundtland's definition of sustainable development. The sustainability cannot only reflect the actions as per their present significance and referring to the past.
4. An action is situational. The actors then face two factors of the decision-making process- 'means', that actors can manipulate based on the norms and 'condition' that actors cannot control, like socio-economic changes. The sustainability has the components of the selection of 'means' for the execution of actions; however, it cannot be said so with envioning conditions. Realising the future state of resource conditions as sustainability is hypothetical.

**Methodological level:** - The conceptual scheme requires a methodology that facilitates the transcending across two types of knowledge claims depending upon the situations. The knowledge requires empirical evidence and can be tested based on subjective experience as well. The methodological scheme requires to consider the holistic thinking that orders value-based actions under a policy to achieve specific goals- a part-whole relationship (see Chapter 2 and section 7.3).

Even though value-based actions and policies have different knowledge bases, they are inseparable in achieving goals through concrete outputs. Together, they guide and structure to achieve specific goals sustainably. The sustainability dilemma's understanding requires



integrating both epistemological interpretations and then finding a methodology to integrate them into the common manifestations.

The methodology needs to work both at the internal and external levels in analysing the actions. Internally, the actions related to the core value of community-subjective experience. Externally, the actions related to the policy of environment conditions-objective facts. Methodologically, the researcher transcends across different themes of interaction patterns to relate to values and policies. The actions are identified as purposeful, and as having a concrete end. The policy conditions trigger the actions; norms select means for the actions' execution. As such, an ordering is required on how action does 'relating', with value and policy.

The methodological scheme for perceiving the policy-action-value relationship requires to adapt the hermeneutic circle, as illustrated in Figure 24. The researcher pre-understands action in relation to value through the selection of means eventually provides a new understanding of the value. Similarly, the researcher understands action in relation to policy based on the goal settings; eventually provides a new understanding of the policy.

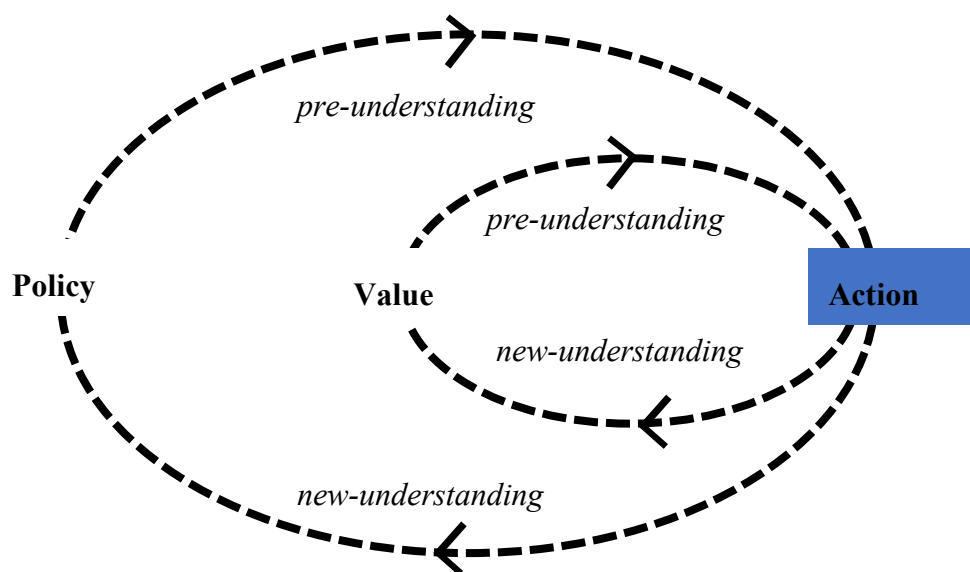


Figure 24 Hermeneutic representation of value-action-policy relationship.

Based on the hermeneutics, Figure 19 highlights some of the key features as explained below:

1. Action is pre-understood based on the value. The action is chosen based on the value. The researcher then has a new understanding of the value based on the selection of means. Sustainability appears in the contents of the knowledge on the selection of means to achieve goals-how the actors perform actions.

2. Action is pre-understood based on policy. It is triggered based on the policy (socio, economic, ecological, and cultural factors) through goal settings. Sustainability appears in the contents of the knowledge on different conditioning factors, for example mainstream institutional frameworks, -how the actors set the goals in the myriad of such conditioning factors.
3. Action is a common comprehensible entity for relational interpretation for both value and policy. However, it has different ways of relating to value and policy. The sustainability also appears in different forms and contents depending upon the situation.
4. The methodological scheme also illustrates that the pattern of social interactions overlap both values and policies and chooses means for goal settings; for example, ecovillage themes of resource management, community organisation and knowledge generation and sharing. Such transcending themes facilitate understanding (explain and explore) both selection of means and goal settings.

The key points mentioned above illustrate the common pattern of social interactions that can interpret the action concerning value and policy. Methodologically, the themes developed that, on the one hand, facilitate the objective ordering of the subjective experience through pattern identification of social interactions in the selection of means for certain goals. On the other hand, facilitate a subjective experience of objective conditions through concrete goals settings. The themes allow the interpretations of actions through different epistemological stances of value and policy.

### **7.5 Contributions of EV concept to the planning practice**

The concept of 'Think Global and Act Local' has been the legacy of the globalisation debate, in which the actions are pivotal in achieving sustainability. It remains valid to EV concept as well; however, EVs have often ignored the regional interactions as the envioning conditions, especially the mainstream institutional framework. The regional factors/conditions are the triggering factors for actions execution. The new philosophy could be 'Think Global, contextualise Regional and Act Local'. The 'contextualise regional' indicates the interpretation of actions as a comprehensible physical entity to both regional level policies and local values. It also indicates the importance of the identification of regional collaborations in the mainstream institutional framework and is possible through the practitioner's mediatory role. For example, Schloss Tempelhof and Jhong are translating into the mainstream institutions, Hurdal EV is transforming into the mainstream and Bandipur bazar is transiting into the

mainstream society through intermediary projects like 'Cider Road', 'ACAP', 'sustainable valley' and 'Eco-cultural tourism' respectively.

In planning, besides the interpreting EV's sustainability, the queries remain on securing and enhancing the sustainability in relational perspectives. Sustainability appears either in the objective conditions for a mainstream institutional frameworks or the subjective experiences at a local level. Under such circumstances, the planning process addresses the change in resource conditions. As such, the planning practice has two functions: maintain the values of the community as a system, which refers to subjective experiences; and contribute problem-solving that considers policies. This makes the means to achieve concrete goals come into foreground. From the practitioner's perspective, the overall planning process appears, as shown in Figure 20.

Figure 20 illustrates that in practice, the practitioner gathers knowledge from diverse values and policies. Both values and policies have their interpretations of the concrete goals. The practitioner, based on values and policies, selects a broader range of means for the action. The values decide the selection of means and the policies ground the selection. The means are selected and executed to achieve concrete goals. The goals then provide feedback to both values and policies as a part of a loop which eventually informs the practitioner to plan the next cycle of actions. The planning process appears as the process of developing a normative order for the implementation of actions to achieve concrete goals. The practitioner provides the range of means due to the prompting effect of change in resource conditions in the policy. However, the means are selected based upon the local actors' values. The sustainability concept of EV highlights the scaling up of the local level actions that can meet the comprehensive policies for a broader region as a part of the planning process (See Chapter 5). The goal of the planning process is then to achieve the concrete goals related to resource change and maintain the pattern

of value maintenance in changing resource conditions. The planning process meets both the policy conditions and the local values.

In the EV concept, different possibilities related to actions depend upon how the actions are interpreted in the objective conditions for a region and the subjective experiences at a local level. Despite its different forms and contents, sustainability is always embedded in concrete goals that are influenced by how different means are selected (See figure 25).

The practitioner comprehends both kinds of interpretations in the planning process. The practitioner with the appropriate framework can alleviate the sustainability dilemma between action, theory and practice. Due to the theoretical/methodological approach to the thesis, wider implications may be drawn to other (non) EV concepts within the Sustainable development sphere.

*a) Conceptual level*

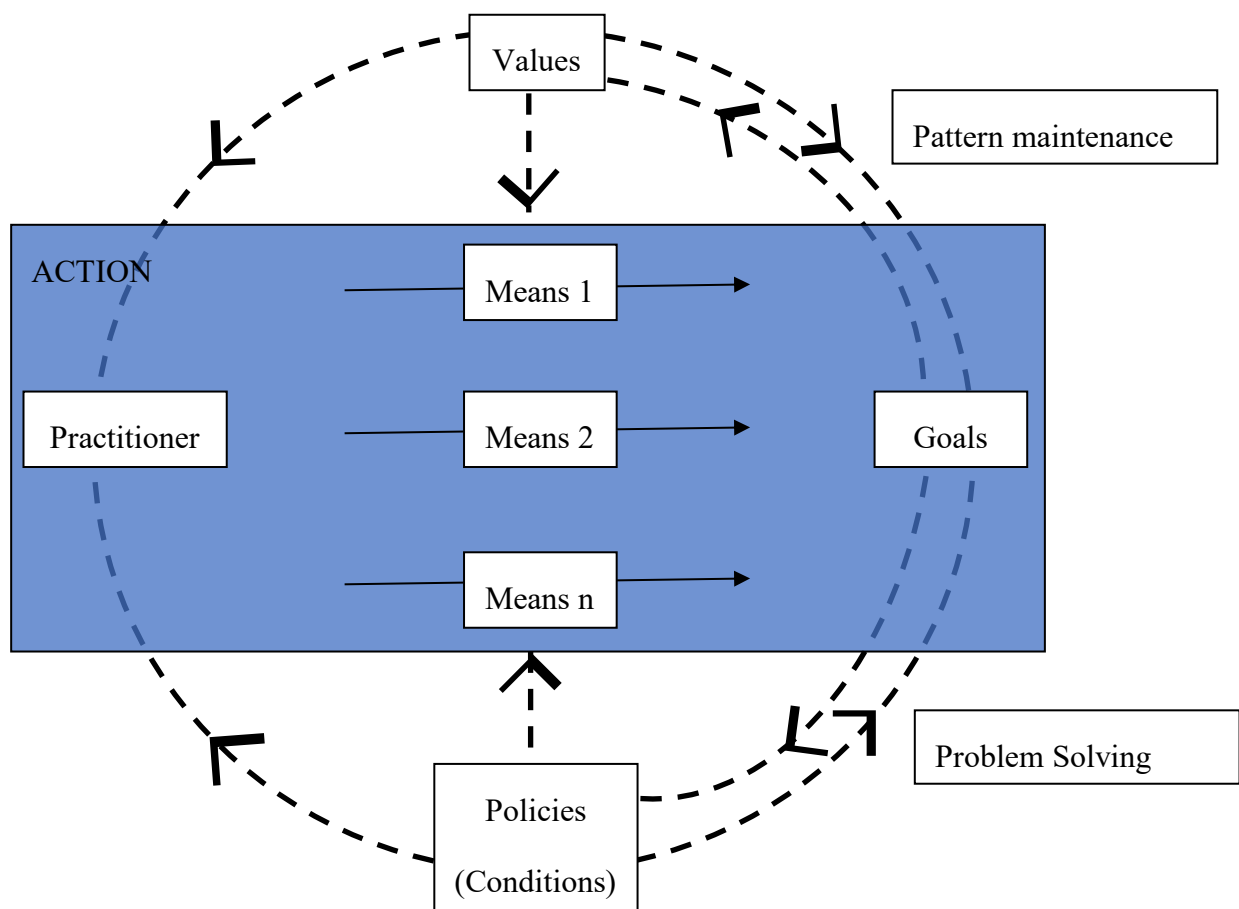


Figure 25 The graphical representation of planning process from the practitioner's perspective with action-situation as the frame of reference.

At the conceptual level, the practitioner needs a theoretical scheme to understand the dynamic relationships between different dimensions of SD, for example, social, economic, ecological and cultural through values and policy conditions. Figure 20 highlights some of the key conceptual aspects of the planning process:

### ***Integrated approach***

The EV concept illustrates that the practitioner needs to conceive sustainability from the complexity of the societal context by addressing interrelations among different factors that constitute a problem. The complexity might influence the impact and acceptance of the proposed solutions. Conceptually, many actions are often geographic site-specific. EV as a sustainability concept has solutions that are mostly concerned with the ecological balances, for example, the concept of permaculture in Schloss Tempelhof and Hurdal EV. However, in the EVs, the actions are situation-specific. The local actors select different means for executing actions depending upon resource conditions; the knowledge they have; and their value-based roles in that situation. The site and situation together represent the context. The ‘context’ signifies a fundament to conceptualise and interpret a problem to find the solutions.

The practitioner needs to establish that the interpretation of sustainability has diverse interpretations depending upon its position in the dynamics of factors: empirical insights, value orientations and decision-making mechanisms. However, the interpretations have concrete ends. The practitioner requires embedding sustainability in the concrete goals in the complexity of the societal context in the planning process that may or may not be in line with the professional’s expertise.

### ***Diverse perspectives***

The study of EVs indicates that there are multi-faceted ways of interpreting sustainability depending upon the complexity of interacting factors. For example, the enviroing conditions for EVs and traditional community like Jhong are different for the same actions. In EVs, sustainability is embedded in their values in written rules. In Jhong, sustainability is embedded in the values as social norms in the latent form of stories. However, all the cases indicate the development of holistic thinking that facilitates the embedding of sustainability into their actions in different forms and contents in response to policies and enviroing conditions. The holistic thinking of planning process, on the one hand, allows social actors to choose values-based actions, and on the other hand, allows setting concrete goals based on policy (conditions).

Prescriptive actions are often non-comprehensible to communal values and may result in discontinuity.

On the ground, the local actors hold diverse perceptions and interpretations of sustainability. They are based on their relations to a problem, their roles in the context, and specific social and natural conditions of the concrete situation.

The polyvalence of sustainability as a variable allows post-reflecting on developing scenarios and consequent alternatives. For example, in EV cases, local actors had different perceptions of the same social action, based upon their roles in the actions, and the values derived from their respective communities. The practitioner receives diverse perspectives for a concrete goal in the planning process (See figure 20). In the planning process, although it is time-consuming and demanding, it is necessary to clarify and relate different stakeholders' objectives and views in common frameworks. The framework includes what the problem is, what solutions can be, and how to realise them in concrete goals. The planning process explores the integration of knowledge and different ways of exchanging; reflecting and critically assessing scientific and social views of means and goals concerning sustainability. In EV cases, the planning process at the regional level has explored the possible integration of knowledge at a local level by scaling up such initiatives into policies and plans. For example, Hurdal municipality and Kressberg region the EV concept of Hurdal EV and Schloss Tempelhof in their policies, respectively. The exchange of diverse perspectives is understandable within the context of their shared concrete goals. Different local actors choose different means based upon their roles in a community for the concrete goals and perform in align with communities' norms.

The practitioner needs to facilitate the process of communication in the planning process among diverse actors. The practitioner needs to explicitly use the local examples, avoid scientific terms, and adapt different local terminologies concerning sustainability that could easily be comprehensible by local values. The practitioner needs to help involved stakeholders in understanding the perspectives of others in different roles in different forms of collaboration.

### ***Converging theory and practice***

The planning process with EV concept comprises a comparatively high degree of iteration (the possibility to repeat with improved insights) and includes the feasibility of real-world criteria. There is a necessity to bridge between theory and practice by developing an interactive mutual exchange process. EV, in theory, facilitates knowledge on different sustainable strategies at the local level, and in practice, facilitates the adaptations of those solutions to address different

community problems. The result of the planning process with the EV concept is neither practice nor theory in and of themselves. They mutually depend upon each other in the selection of different measures for different problems in different situations. For example, the patterns of different actions in all cases are not explicitly related to sustainability but were the strategies to build the community and maintain their core values. Different situational methods are applied in a very pragmatic way, meaning that problem-solving in a concrete real world is the primary goal. A theory can be a by-product of the process.

The practitioner bases knowledge transfer on case-specific means based on the values and generalises the actions based on standardised conditions of policies (See Figure 20). The practitioner needs to facilitate the recursive process to find the unexpected impacts and tackle the uncertainties and multiple facades of the problem and diverse perspectives through different possible means for the concrete goals.

The planning-process with EV concept surpasses beyond the pragmatic application of disciplinary knowledge problem-solving in a concrete world situation towards a reflective and iterative process between theory and practice development. The planning-process with EV concept, on the one hand, acknowledges disciplinary boundaries to describe a problem and propose environment-friendly solutions. On the other hand, it validates different types of disciplinary knowledge through its practical relevance for the context. The theory and methods are repeatedly tested by applying them in actions through a selection of means and setting goals for informing value-based practices under policies, and other underlying assumptions. The notions of sustainability are modified and adapted in the EV concept if they are found inadequate in different spatial and temporal situations and policy conditions. For example, in Schloss Tempelhof, environment sustainability measures are adapted into the intergenerational equity context under Cider Road policies. In Hurdal EV, environment sustainability measures are adapted under sustainable valley policies. In Bandipur Bazar, cultural sustainability measures are adapted in MTMP. Finally, in Jhong, cultural sustainability measures are adapted under ACAP's nature conservation.

In the EV concept, combining technical rationality and social values meet the challenge of indeterminacy of real-life sustainability. In the planning process, indeterminacy as a variable for beginning and end allows projecting possible future scenarios based on past and present conditions. It also facilitates the process of continuous interaction among diverse perspectives for concrete goals and selecting the non-prescriptive ways of achieving them.

### *Concrete Goals*

Planning practice tends to achieve well-being by aligning the EV concept-based solutions to ethical values defined by social systems, institutions and environments. The concrete goals for a context enable the local actors to achieve a consensus on concrete goals to maintain their values, despite their diverse perspectives in EV concept. Concrete goals reflect the values and interests in plenum instead of implicit assumption. The concrete goals also reflect the solutions for problems created by the change in policy conditions. The study indicates that the concrete goals are set by openly discussing the nexus of cultural values, interests and overarching regional level policies. For example, in Schloss Tempelhof, the goals are comprehensible as environment friendly in response to the social equity value and regional level cider road policies. Neither the professionals nor researchers nor individual stakeholders pose a specific power of defining the concrete goals or its realisation in a specific condition. Under such circumstances of the planning process, the practitioner facilitates a broad range of means in response to values and policy condition to set the concrete goals (See figure 20). By facilitating a broader range of means, the practitioner explores if the concrete goals through different means met local actors' diverse interests. The concrete goals become a comprehensive entity for exchanging, reflecting and deliberating ideas on choosing appropriate means in the myriad of diverse roles of action execution.

Concrete goals in EV concept bounds to neither any disciplinary boundaries, nor any concrete pathway to achieve them; however, depends upon all involved actors' reflection on roles, stakes, and values and conditions. The concrete goals-setting depends partly on how well descriptive, normative and practice-oriented knowledge is consistent with a comprehensible policy condition. The practitioner needs to interrelate the following aspects to connect the concrete goals and the associated policies:

- value-based different interpretations of the problem (what)
- local value-based normative aspects of clarifying and prioritising after introducing new practices and transforming existing practices
- possible means suggestions for transforming existing practices and introducing desired ones based on policies

The best way to achieve sustainability in a planning process is by facilitating local stakeholders to set their concrete case-specific goals. The practitioner, through policies, needs to facilitate the meaningful ordering of those values-based subjective perspectives. The ordering provides



the general scheme to understand the concrete goals and their role-specific means in the actions to achieve them.

***b) Methodological level***

The planning process requires integrative thinking based on the transition across different empirical references: value-based social actions and objective conditions of policies. The practitioner requires a methodology to deal with the subjective-objective dualities of sustainability of ecovillage in an action-policy dilemma.

***Oscillating role of the practitioner***

The planning process with EV concept highlights the reflective process. In the planning process, different stakeholders (local actors and professionals) interact on identifying and understanding the issues and then manifesting the concrete output by explicitly stating them in the process. Within the dynamic context of interaction, three epistemological challenges appear in the planning process. The planning process corroborates with diverse values and the objective conditions to the goal achievement. Under such a dynamic perspective, the planning process prioritises those values and conditions under common norms. The practitioner reflects-in-actions during a planning process and link theoretical, professional knowledge with practical knowledge in the planning process (Singh & Keitsch, 2019). Figure 26 illustrates some aspects of linkages within the triangulating roles of practitioner, researcher and professional.

The practitioner confronts the challenge of reflecting from three epistemologies in synthesising different means for achieving the goals. The transition across different worldviews is incomprehensible reflective actions or tangible entities in the concrete goals. In the planning process, the transition requires concrete concepts that govern different comprehensible actions and outputs across different world views, for example, the Ecovillage concept.

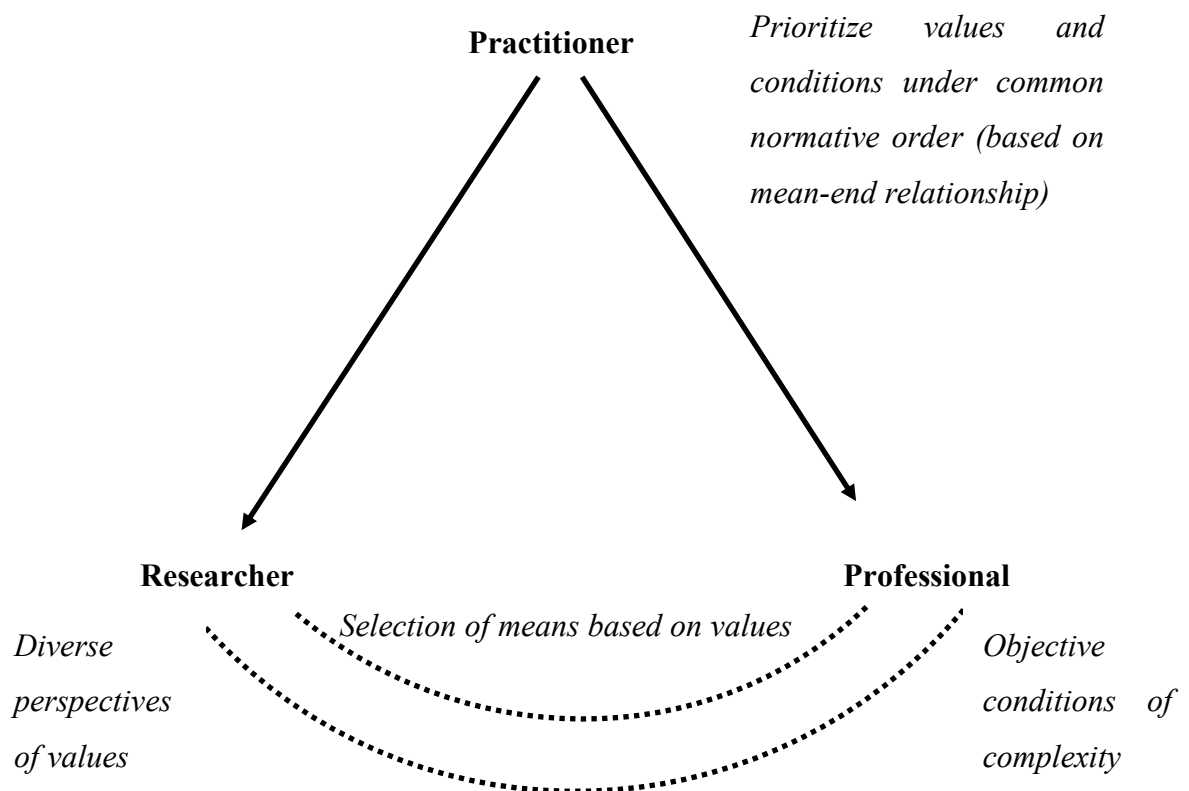


Figure 26 The practitioner’s oscillating roles as a researcher and a professional in the planning process (Adopted from Singh and Keitsch (2019))

The EV concept has tangible outputs and actions that are comprehensible in different worldviews in the planning process. For example, in Schloss Tempelhof, the younger people comprehend sustainability as a mean to organic food, and older people comprehend it as a mean to social equity for food access. The Cider road policy comprehends it as a mean to achieve the regional identity. As a researcher, the practitioner identifies the possible purposes of the actions through communal values, for example, inter-generational equity for resource access in Schloss Tempelhof. As a professional, the practitioner needs to pursue a range of means to manifest goals under the policy. For example, Schloss Tempelhof, Hurdal EV and Jhong have different forms of resource ownership to maintain the value of inter-generational equity under cider road policy in Schloss Tempelhof.

### **Adaptive strategies**

In the planning process, the practitioner applies different adaptive strategies anticipating the evolution of uncertainties in objectives and visions and their consequent implications on different solutions. Due to the dual roles, the practitioner needs to develop competences to

understand strengths and weaknesses of problem-solving strategies while integrating in the normative order for concrete goals.

As a researcher, the practitioner needs to learn on the diverse definitions of problem-solutions depending upon the spatial and temporal positions in the broader context. Then, the researcher's has a task of addressing uncertainties in the problem -solutions interpretations by learning diverse perspectives on problem solutions. As a professional, the practitioner needs to reshape the problem solutions into objective conditions. The professional's role then has a task to deliver different measures according to reshaped definitions and the uncertainties. The planning process holds on to the normative orientation of the diverse perspectives and measures for problem-solutions. A practitioner brings the normative ordering to the problem-solution definitions. A practitioner's role then has a task to accommodate different values and objectives into concrete goals based on that normative ordering.

### **Dynamic collaborations**

In a planning process, different stakeholders determine different ways of collaboration that meet different interests and circumstances. The EV concept presents three organisational forms: cooperative, foundation and company limited (See chapter 5). Each organisational form facilitates different interest groups to express their ideals and values, but at the same time differentiate their roles, interests and goals in performing the actions. Different organisation forms direct the oscillating roles of the practitioner and different forms of collaboration for knowledge generation. There are two aspects of understanding the dynamic nature of interaction in organisation forms. They are the changing number of participating members as the process progresses; the variations in the interests and power of different participants concerning resource management.

In the planning process with the EV concept, the practitioner confronts the challenge of allocating the stakes in the decision-making process that also determines different collaborations as a researcher and a professional. The allocation of stakes is determined based on different stakeholders' roles, knowledge and values in the situations and the desired concrete output based on EV concept. The stakeholders do not necessarily have the same preferences and power, consequently affecting the communication ways. The practitioner has higher stakes because of the responsibility to comprehend different worldviews. In the collaboration, the researcher's role require collaboration for common group learning among diverse stakeholders, for example understanding the concept of *shelter home* in Hurdal EV. The professional's role

require collaboration to deliberate as experts, for example, as an expert in Cider road policies in Schloss Tempelhof. Similarly, the practitioner's role requires the integration of diverse knowledge to manifest in the concrete goals, for example, in developing forest management scheme based on endogenous governance system in Jhong and in developing heritage conservation based Tourism in Bandipur Bazar.

## **7.6 Future Research on Sustainability**

A key aspect of sustainability research is the involvement of both non-scientific and scientific actors in planning, decision making, and learning processes. Elaborating and expressing normative orientation for different epistemes in terms of selection of means through concrete goals may contribute to increasing consensus among diverse stakeholders; in the study, empirical reality and social values. Methodologically, this implies the dynamic roles of the practitioner that bridges theory and practice. From the practitioner's point of view, the goal of any planning process is to maintain the values of the local stakeholders and solve the problems in the situations of changing resource conditions. They are mutually inclusive despite their different worldviews. As such, sustainability has different forms and contents depending upon the goals and how values and policies comprehend those goals. The necessity to incorporate both sets of knowledge claims in sustainability-related problem-solving concept like ecovillage. The PhD research also revealed some so far unexplored aspects related to questions for future research such as:

- How to utilise hermeneutic interpretation in understanding sustainability with different stakeholders (The research has related hermeneutic interpretation to the PhD researcher only);
- how to commonly develop different means based on the objective conditions and then facilitate local actors to select from them;
- how to commonly develop concrete goals; and how to integrate uncertainties in the planning process and future prognoses.

These questions need further researches in both sustainability theory and practice.

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## GLOSSARY OF TERMS

**Artabana-** Founded in 1987 in Switzerland, is the first solidarity-based community in the health care sector. Since 1999, it has operated in Germany and countries over 2000 members

**Ama Samuha-** Nepali term for Mothers' Group

**Autopoiesis-** It is a Greek word with meaning, auto- self, and poiesis - creation and production)

**Bundsgemeinschaft Selbstverwalteter Garten Bau Betriebe** - Federation of autonomous garden Entrepreneurship.

**Chhortens-** Small Buddhist Stupas

**Chhowa-** Tibetan Local term for messenger

**Community** - It is a group sharing a common understanding and often the same language, manners, tradition, and law.

**Consumerism** – According to Merriam Webster, consumerism is the theory that an increasing consumption of goods is economically desirable

**Dalit-** The marginalized group often referring to lower caste or untouchables according to Hindu caste System

**Dhongba-** *Dhongba* is linked to a land inheritance system, referring both to land allotments and households who hold these allotments. Usually, the eldest son gets *dhongba* and as such, also becomes eligible for *Ghempo*.

**eG-** An eG or eingetragene Genossenschaft (German language) is a registered cooperative society under German Law and may carry out commercial operations.

**Ghempo-** Tibetan or local term for the village head

**Globalization** – Globalization is a process in which the people and countries of the world are being brought closer and closer together, economically, and culturally, through trade, information technology, travel, cultural exchanges, mass media and mass entertainment.

**Guthi-** The Nepali term that indicates an institution that is inherited with land to perform certain function

**Hus bank-** Norwegian term for Housing Bank

**Intentional community-** An intentional community is a group of people who has chosen to live with or near enough to each other to carry out their shared lifestyle or common purpose together.

**Jhopa-** It is a hybrid of male yak and cow or female yak and ox.

**Khamba-** Tibetan Guerilla fighters

**Teleology**- Greek Words: telos (end, goal, purpose) and logos (reason, explanation). Teleology is often termed as finality is a reason of explanation for something in function of its end, purpose or goal brought about through intention. contrast with teleonomy - teleonomy relates to programmatic of computational aspects of purpose brought about by natural laws - purpose law.

**Tundikhel**- in Nepali, it means a large open space with grass covering.

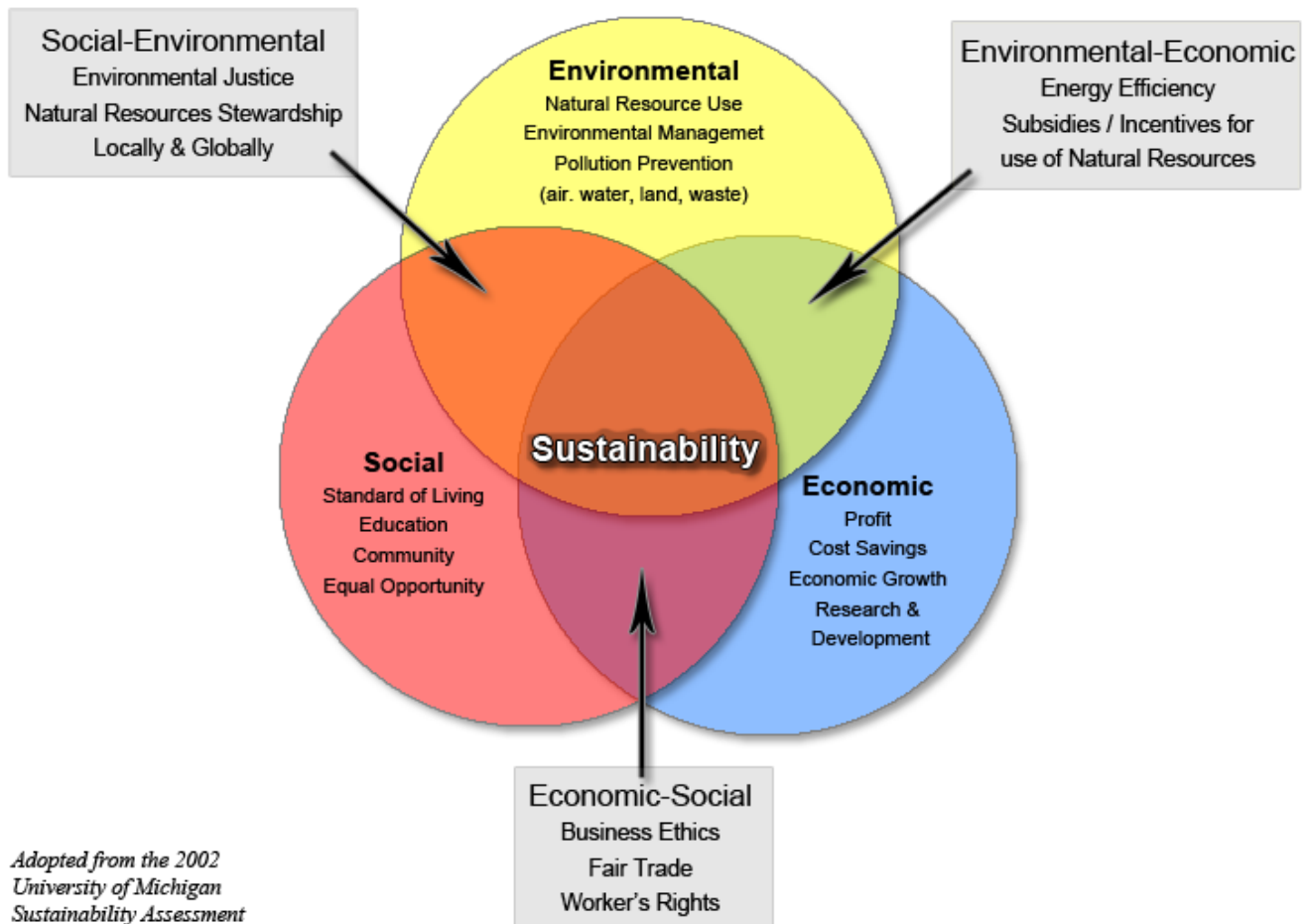
**We Process**- The term ' We Process' (translated from German word - 'Wiz-Prozess') was created by Schloss tempelhof which is based on Scott Peck's process of community building.

## **APPENDIX**

## Appendix 1: - Three Spheres of Sustainability

(Source: - University of Michigan, Sustainability assessment, 2002))

### *The Three Spheres of Sustainability*



## Appendix 2:- Seventeen Sustainable Development Goals

(Source: - <https://www.un.org/development/desa/disabilities/envision2030.html>)



### Appendix 3:- The Sustainability Mandala- Ecovillage Concept

(Source: - <https://ecovillage.org/projects/dimensions-of-sustainability/>)



## **Appendix 4:- Questionnaire Sample to Schloss Tempelhof**



## **Schloss Tempelhof (S.T.)**

1. What is the core idea of S.T. and how is it different from conventional society?
2. How is S.T. managing food demands? Does S.T. have its own source of food production? If yes, what kinds of products are produced here? Is the food produced diverse and fulfill the demand of the community? If not what kinds of food are imported? Does S.T. also supply to the surroundings? Till where, the agricultural products are delivered?
3. Apart from agriculture, what are other areas (like handicrafts, service providers) people are involved with? Is the working opportunity limited to S.T. only or in other surrounding areas? How far do people go to work externally?
4. How is S.T. managing various infrastructures like electricity, water supply, and transportation?
5. What is the source of electricity? What are the major applications of electricity?
6. What is the source of water supply? What are its major applications? How do community manage waste water?
7. How often do the people commute from S.T. and for what purposes? How do they normally commute (like own a car, walking, bicycle, public transport)?
8. One of the biggest issues has always been housing. How is S.T. managing the housing demands? What kind of technology and material are used and what is the important feature of housing in S.T. that makes it different from surrounding houses (if any)? How do they build or maintain houses (like getting developers or doing oneself)?
9. What is the main income source? Within community, how do community manage economic demands? How is maintenance, and security of infrastructure maintained economically? How is payment made for services?
10. What is the most important for community development? How do people participate in carrying out various functions such as decision making and realisation of works (distribution of works)? What kinds of activities do help in building the communal relationship in S.T.? Do you have certain focus areas for building the community?
11. How does S.T. foster the concept of sharing the knowledge to future generations for developing real motivation?
12. In what ways is S.T. cooperating with the surrounding region? Is it only through exchange of resources (economic, agricultural products, job, infrastructure) or also through knowledge generation and sharing? How is it important for S.T. contributing to regional surrounding?
13. In which aspects S.T. can contribute to surrounding region? How do you see the future of S.T. in community and regional development?
14. In what ways do you think that S.T. experience can positively influence future development of other settlements or in the region?

## **Other Stakeholders outside S.T**

1. How do you see the development of S.T. till now?
2. Do you see any difference between conventional settlements and S.T.?
3. What aspects do you like of S.T. and Why?
4. What do you think is problematic with communities such as S.T. and in what ways?
5. Do you think S.T. have contributed to the surrounding region? If yes, in what ways?
6. Do you think that S.T. feel part of this region? Are they isolated from other communities?  
How do they cooperate or work together with surrounding communities?
7. Finally, do you have any suggestions for collaboration, critic or positive points you want to emphasize regarding the S.T. community?

**Appendix 5:- Summary of Interviews, Observations and Reflections on Trip to Schloss  
Tempelhof**

## **Day 1 (1 Feb, 2018)**

At around 11:00 clock in the morning, we met Roland. He asked we should have appointment. however, we were invited for the public meeting at 4: 00.

On the way, Tempelhof is a part of Kressberg region.

### **Public meeting**

It seems that core of the decision-making process in public meeting is that everybody has right to say and also to vote for any issues. From the seating arrangement, they sit on the round on floor, and the moderators put the issues and conflicts one by one. Also, symbolically, the moderators have tools like queues for speaking

This is related to direct democracy. After the issue is put forward for discussion, each member has the right to say for or against it and also vote for and against it. But there are also the chances of discourse and discussion where the participants have to tell their opinions, reasons and even urgings. Even the explanations are voted if people agreed on it or not. Initially, there were 23 people attending the meeting. However, 4-5 people came in and went out. So, there was no clear on how many participants were there actually. There were 4 guests that include two of us. There were almost equal participants gender-wise. The age group consists of from mid 30 till 70.

Before the meeting starts, every member has been handed with the issues to discuss and every participant seems to have some details, information on reflection on that. Each participant was given equal opportunity to put their views, but those views also have to be assured and accepted by other members. All the misunderstandings and issues were cleared in these kinds of public meetings and also the work division.

In the evening we met Michael Strang, who has been working in the community and also looking for new possibility of ecovillage in new area within this region, Kress berg. He is also the member of GEN (Global Ecovillage Network).

need to talk privately about the infrastructure and building organization; What the spiritual seminars bring to them; life death meaning and interpretations.

### **Personal reflection**

There also seems division of work where every personnel are given roles. Each assignment consists of committees and coordinators and responsibilities. So, the core of TH has a kind of structure with division of labour and with that division comes with roles and responsibilities. That role and responsibilities are given with the consent of the community.

The way the meeting has also some reflections on how community members have their roles. The first-hand reflection shows that mostly the young representatives and males are more influential comparing

to old women. May be this has to do also with the responsibilities they have. My personal intuition was also about how these people have been able to act that way. They seem to be bound more by functions and some structures. My personal intuition was it has to do with the way they have been taught or learned from the very beginning through some institutions. The emphasis they were also putting on the school constructions in such a small community also reflect the role of school as an institution to guide the way they will act in the future. So, the model of *gemeinschaft* or the sense of community comes from the way people are educated in their school. It has to do something with the education system how they teach about the community building and the politics for it. So, my first query on the community building is how the education system works in Germany for which this community has so much influence and how they talk about building a community. As for now the school seems to be strong institution for building community sense, and the way of living.

So, learning about the Free School, and their core idea of teaching.

### **Helmut's reaction**

Roman Huber asked about the appointment. it would have been better if we have appointment. We also look if we cannot find some information from Radhuss in Waldheim. but she was not reluctant to tell about TH but need to talk to mayor of regions Kressberg. She was neutral to talk about it. Now we are waiting for their call. Also, it is important to know how often this meeting get organized. but there is certain impression that certain groups are frequent and together than the whole community together. there is definitely an invisible active group. these groups organize the seminar and other activities.

they have the vision for community which is having an alternative way of living together (not individualist conventional type) and probably the reason why they act like this.

Impression on TH for Helmut

### **Day 2 (2 Feb, 2018)**

Today we went to one of the Free Schools in Crailsheim in order to understand the kind of interaction the school of TH with it. As we approach the school the environment was different to the conventional school that I have been. The walls of school are with some revolutionary hand-written things related to politics. Some slogans from French Revolution, Equality and Equity, Democracy.

### **Personal Reflection**

Politics is there from the school in itself. But I am not sure how this politics has been helpful to the members for learning about community building. The concept of direct democracy in TH has some strong linkages to these kinds of education system.

### **Helmut's reaction**

if there is any interaction between schools in Crailsheim and Templehof. there is some contact between them, but she can't answer more because the pedagogical leader would be the right person to answer on these questions.

### **Day 3 (3 Feb, 2018)**

#### **Meeting with Mr. Michael Stang**

The interview started with the general introduction. Mr Stang was originally the biologist. In Ecovillage, he started as handicraft person but now he looks after the farm and agricultural products, apiculture, animal husbandry. there are three different farms around TH where he works and look after them. He is also one of the teachers working in Free school.

1. One of the peculiar and special feature of TH community is that there is plurality and multidisciplinary. There are people of different skills and diverse coming from different parts of Germany. They live together and have equal participation on decision making process. As result one can say that there is horizontal hierarchy. most of the vegetables are grown in the farm. However, some of the food products have to be imported. For e.g. coffee, bananas, cereals like rice. However, the amount of import is very less compared to export. Many of the clients are from CASA system (.....). Some of the clients are not from Kress berg as well.

2. In TH, many of inhabitants are working and get paid for their work in the community. Some employees are not from the community and works in Green Houses.

#### **Genessenschaft.**

3. Another key feature of this community is schooling system. many of the community members are kind of service providers. The students can choose what they want to learn. Later they can take the education system exam like other normal schools (or SLC in case of Nepal) and pursuit higher education. this is often referred as **intentsische** - that refers to motivation. The students are not only from the community but from 40 km around. This has often impacted the normal schooling system and few have actually closed because of this school. The schooling system directly comes under central government unlike other infrastructures. The government provides fund for every student and the growing number of students also illustrate its popularity.

4. Apart from school, the community also has seminar house that organize regular spiritual programmes of Scott peck, from I To WE process, YOGA, physiotherapy. The earnings from these orientation programmes are used as a source of community and used for paying the employees. There is also canteen that provides food to community members.

5. the decision-making process in TH is democratic. It is more about learning social skills and community development.

6. The community has tried to be autonomous in terms of infrastructure. The solar powered photovoltaic electricity is only enough for light, but high energy demand has not been fulfilled like room heating, kitchen cooking energy. The community is working on bio gas plant. But the community is working not on the conventional single tank but the smaller compartments which are more efficient. For water resources, there is water source nearby which is used for farm. However, the community is not allowed to use it for drinking purpose because of regulation in Kressberg. Also, the community cannot recycle the drinking water because of governmental rules. The community thinks that Kressberg has already invested a lot of money on water supply and recycle plant (Ries-Wasser, a company related to water supply). All the infrastructures come under Kressberg gemeinde, but the education and schooling come from higher than gemeinde. The community has some issue with Kressberg region because of school. The free school in TH has attracted children across the region and also the money that central government give to each student.

7. Few people goes to Crailsheim, the town. Most of the residents work here. In a week probably 10 people go to city for shopping while 2-3 people work in town. Remaining one work in the community.

8. Recently, Earthship building was built with passive technology. However, the community has not decided on building new house for new residents. Building house is an expensive process. the decision is still needing to be made on putting the optimal price. The challenge is also to build house of ecological standard, i.e. independency from active heating technologies.

9. The community has combined economic resource from seminar houses, info-cafe, farm, from government on each student in school. However, individual has to pay their bills and taxes on electricity, cars, telephone.

10. the community building process works on the principles of Scott Peck. The process works in the beginning. But now the community has gone deeper than that. the community has the intensive communal feeling. the aim is to build the culture of togetherness.

11. every second week they have the meeting. this is a German community system?

Verein (e.V.)

Gemeinnützig

Since the beginning, the decision-making process has changed three times. Each change is a part of knowledge making. the challenge is still on categorizing the issues.

12. The Free school system in TH is one of the key feature of the settlement. The students learn in the communal way. For e.g., the monopoly is a kind of game where the winner is with highest amount of money. But the students combine the money so that their playmates don't go out for the game. So, it seems that the school is able to teach the students to live in a communal way.

13. the community has its own agriculture system influenced by Permaculture. in this system, human is considered as a part of ecological system and use of heavy machineries are avoided. In permaculture, the input energy is less while the production the comparatively high in comparison to the food produced. The normal business-oriented agriculture yields higher products comparing to permaculture, but the energy intake is also very high in comparison with production. In the world only 17 % food is produced this way.

### **Reflection**

The expression reflects the desire of community to be closer together as far as possible. The best way the community has found is having equal decision-making process where everybody is leader and equal. The way of decision making process seems to be revolutionary within community. one way of making all people equal was making community stronger with greater economic power while the community members work to the community and get paid. The payment doesn't necessarily include cash only but along with money, food, services and others. the more the money the greater the disparity. So, equity is given through equal decision-making process and probably equal distribution of economic merits. The community is building institutions that can keep the order within community especially equity among the members.

### **Meeting with Agnus at Info-cafe.**

The community has around 150 people. The community is attempting to grow further 200-300 people. However, the community doesn't want to grow organic or sporadic, rather incremental. The community is in discussion to bring 10-15 members yearly. So, there shall be screening or the selection criteria for new members. The TH as intentional community started in 2011. In 2010 December, the whole area was bought in conventionally cheaper price than around Munich. The name TH was there from before. It is an old village of history being a home for disabled children.

It is 4th ecovillage in Germany. Three were already existing: Sieben Liben, Zegg, and ..... Sieben Liben core idea is to develop community with ecofriendly building technologies. Zegg has spiritual approach with free love and ..... was based on conflict resolution through communication. Scholss TH has core idea of economic foundation. The main concept was to have communal economic stability, and all are leader concept. So, they have equal decision-making process where there is flat hierarchy in terms of rights to decide and express opinions.

Many people show their interest to come in as a member of community, but the limited infrastructures (housings) and the commitment to be higher degree of transparency to get nearer is challenging and different to the conventional societies.

With respect to the surrounding communities, the closest one is Halden. In terms of getting machineries and other help, there is regular exchange of sharing of resources especially farming equipment. Further



because of various seminar programs related to ecovillage and other spiritual events, more people are coming to the Kressberg region. This has also increased the population of the region and also put Kressberg as one of the talked about region in Germany.

The TH is nearly autonomous in terms of vegetables. Further it supplies vegetables to other villages within region. However, they have to import animal products, cereals, tropical fruits, coffee, and other products that cannot be grown here. Apart from farm, there are also tree gardens. The tree gardens came from the old people within the region, who have tree garden but not enough strength to work. As such, younger people work in garden. there was a mutual benefit.

Currently, it is Gemeinschaft of diversity with people from older to younger people. While there are more women and men but more boys than girls. The community has also attempted to supplement the electricity demand through photovoltaic cells. The energy from photovoltaic cells could be used only for lighting purpose. However, for room heating, conventional heat system and palettes are available. The community is also looking for ways of using passive solar technology, bio gas production for making it more environment friendly and autonomous. The community is also lacking wifi internet services but do have DSSL line connections. The drinking water and warm water is supplied through government water supply. However, community-based water recycle process is not allowed by Gemeinde Kressberg. The water for field is from the nearby spring source.

One of the key element that the community is proud of is the school system. It is getting bigger with 60 students. There is interaction with Free schools in Kressberg region, where the teachers from the school goes to others with their visions and ways of teaching while some teacher from other schools there. One of the key features of teaching methods in Free school in TH is that students from different age groups are kept together. The students can learn whatever they want while the teachers are simply guiding them. This create a learning environment in a communal way. Students learn from each other.

Within the community, there are five working groups that constituents the members of communities and each group has responsibility. They are agriculture, earth-ship building, Info-cafe, School, Seminar house and canteen. Each group constituent members from the community and has responsibility to act or work according to the group they belong to. The emphasis the community build up process is on the ways to increase the members participation in decision making process.

**Appendix 6:- Interview Sample to Bandipur with Manoj Rajopadhyay, Project Manager  
of BECTP**

1. How did the project start? How was the project created?
2. What were the goals of the project when initiated? Are the goals set up by community or planner? Was there any kind of discussion for the goal set up?
3. In order to achieve those goals what were the strategic areas?
4. Were the focus areas proposed by the community? If yes what were the more focus areas?

### ***Community Organization***

1. Did the project focus on forming community organization? What were motives behind the organization formation? Did the community organization takes any concept from traditional community structure?
2. Who were the stakeholders during the project? Why were they important and what have been their roles?
3. What were the modes of participation and decision-making process? What were the community's motives and expectation from the project?
4. What happen to the committee(s) formed after the completion of project?
5. Are people still working under those organizations even after completion of work? Why?

### ***Resource Management***

1. What were the potentials of *Bandipur*? How and why were they identified?
2. Were there any concerns on ecological aspect both from project goal, planners and community?
3. How the financial resources were collected?
4. Was there concern on commodifying various natural and heritage assets?

### ***Knowledge Sharing***

1. What happens to the committees formed during project period? Are they collapsed or still working in some other forms?
2. How were communities trained on what thematic areas?
3. After the project completion, are the community continuing the work of those strategic areas?
4. How were new generations informed about the activities and lessons learned?

### ***Overall question (Post Project)***

1. After the project, what were impacts to the community? How have the livelihood of people changed?
2. Was there any impact to the surrounding context? How does the surrounding environment affect *Bandipur* and their people?

***Manoj Rajopdhyay***

2002 -2003 conflict periods.

There is a reality in how the foreigners conceive the plan and local conceive them. So that's the main reason behind this.

European funded project.

second stage got the approval.

European city partnership.

First identify the potential.

1) locational attribute – it's in the mid way between Pokhara and Kathmandu and on the route to Annapurna trekking route – *Besi-sahar*.

2) architectural heritage

The main objective was to promote the destination through demand creation. Once the tourists come, there is high chances of investment in infrastructure development. The second objective was to train local manpower on local infrastructure repairs and maintenance, like plumbing, electrician.

After that we start promoting. The first promotional tool was billboards at major Kathmandu centres like *Maitighar Mandala*, *Thamel*, etc. Also making participation in various expos and conferences. Next was T- shirts sales in fairs, website, brochure, postcard, and most importantly promotional documentary in participation with Nepal Tourism Board. This was before the stone pavement and at that time tourism information centre was built. Also for the promotion, famous serial like *Tito Satya* and the music video of Raju Lama, *parkhaima bhijyo sirani*. During the making of promotional video, various tourists were brought to show that it was safe even during conflict period.

Then at that time, bus stop was in the market. Then after the construction of hotel and tourism centre, the project proposes the stone pavement in order to make the bazaar area vehicle free. But the planner didn't show up the overall aim of stone pavement. Nobody has ever had realistic though on the success of project. So, what the planner did was they asked the locals to

avoid vehicles for 3 months for the strength of stone pavement. Pavement was done slowly and people realized how the vehicle free access made clean, dust free and noise free area favorable place people's activities. Tourists also start to come more and their positive feedbacks made the people believe in vehicle free area. –an example being promotion in lonely planet saying it as the most favorite place.

Economic activities have not declined even after the shift of centre to Dumre. It is mostly because of the conflict that people started to move out.

It was already a package and only need branding and promotion.

The first step was the workshop comprising of community and expert to make the feel of ownership. The workshop also helps to interprets their reflection. We tried to develop ownership through interpreting their reflection.

All the plans were there. The first step the project did was a part of trust building to stone pave the local temple *Khadgadevi Mai* temple as per local requests.

Each project was handed over to each local for quality maintenance. There were no such cases where people retaliate or opposes for the project.

What we also did was putting *Siddha Gufa* as a promotion, but people don't put part in Bandipur project. Even though the project promote cave but still it didn't flourish as expected at that time. Bazaar pavement is the most visible and railings in Tundikhel where one can see views. In *Ramkot*, round houses.

One of the major things that we have thought when we started the project was that people were very sad and hopeless. Even they can't shift to *Dumre*. The situation was such the case that people have to hire to look after their house. So, people were in a situation let's see. There was no such opportunity.

The goal was to increase tourist flow in this destination so that it creates business opportunity and people starts to invest in conservation of building which is in fact the dual objectives: local benefit as well as building heritage conservation.

Success reasons- steps that can be copied when starting into new place. The biggest things we felt is that lack of local leadership and local government. Also, many other projects when completed don't come back for proper guidance and monitor. In our case we came back voluntarily but we felt local leadership could have been more prolific.

The happiest thing we feel was people's local economy has increased but the dark side of the coin is people started to invest on concrete buildings without taking care of building heritage.

Government – Due to conflict and insurgency period, there were no government agencies but only local NGO partners like *Patan* and *Bhaktapur Tourism*, restaurant and hotel associations and major partner was NTB. Probably due to absence of local government leadership and commitment this process could not have been scaled up or development of local policies.

### **Project's expectation**

Our expectation was to develop Bandipur as UNESCO world Heritage Site.

### **Local Government policy**

After 12 years we have at least able to input in building bye laws on creation of buffer zone as conservation areas. The project coordinators issue with current local government engineer is on emergency transport. There is no way one can have transport access in the heritage center.

People's perception on *Bandipur* has changed.

People used to go far away before the project. Now after it flourishes people started to come back claim the properties. Because of this there is vertical fragmentation of building as well as land which is the biggest challenge now. Another issue is people have money and they don't want to feel proud of their ancestral heritage.

Bandipur is not a planned town.

Ecology, Economy, and Culture. This is a cultural landscape: landscape, culture and human attachment.

### **Challenges**

In many cases, the deterioration is because of absence of local leadership and their knowledge. That's why we need local government can develop into long terms strategies and policies which is still lacking here. The project has to keep coming back to regular monitor and support.

Garbage issues and water issues.

Also, supply of food from surrounding local areas is absent in Bandipur. Surrounding villages should produce food now otherwise Bandipur has to import from other areas highway.

### **Project reasons for selection of Bandipur**

- Warn up hiking

- Architecture beauty
- Paragliding
- Mountain bike
- Rock climbing
- Rafting

This is like a relax place for tourist.

Others attraction: West Ramkot – Magar village, South – Jhar village – Gurung village and this is Newar town. In future, there is good trekking route to Chitwan.

### **Tourism in Nepal**

On arrival visa, and tourist can come without long pre-plan.

The economic activities are increasing in Bandipur because of tourism. Due to this there are high chances of development in surrounding villages in terms of supply of agricultural products. Other villages cannot compete in again hotel business. So, it is interdependent, and all can have mutual benefit doing different things. For e.g. *Bandipur* has the potential of tourism. The brand ha to be created in hotel and overall tourism business where local products are promoted. Probably this can be future steps in Bandipur and probably invite more investments in different areas.

Now Bandipur is in second stage: the first stage was promoting and develop economic activities. Now its second stage, and we have to scaled it up to other villages as well. This is the concept of regional aspect.

The issue now is continuing and scaling it up. Scaling it up means grow the boundaries and make more interdependencies between different localities because that's sustainable and do have long term impact.

### **Inferences:**

In any settlement, it is important to have economic activities apart from basic infrastructures. It is quite impossible to imagine any settlement that don't have any potential that can be converted into cash, or it can be case that people have access to economic activities that is accessible. It shall be quite utopia to have settlement not influenced by any kind of economic activities (unless they are influenced by spiritual philosophy). So, one cannot run away from the economic pursuit, but the economic activities have to be sustainable.

The Present scenario of *Bandipur* illustrates that the people have managed their resources properly for the economic pursuit and people are well organized socially through social equity sharing and participation in activities related to those resources. Further, people are well aware of the growing competition in tourism industries. So, they are thinking to handover their knowledge and expertise of hospitality as well trained the next generation on current trends of hospitality business. So, in a way they are developing a lifestyle (culture) based on their hospitality business by managing their resource (ecological and building heritage). They are even encouraging the new generation through their knowledge from experience and education on hospitality business but on the idea that they have to conserve their ecology and building heritage for the continuity and prosperity of their business and their overall settlement.

This brings forward sustainable development issue. Currently, the Ecotourism project has identified tourism as the economic activities based on ecological settings and building heritage. Moreover, the people in *Bandipur* are well organized after getting awareness on the need to conserve their heritage and keeping the balanced ecology because their economic pursuit are based on their cultural and natural resources. So, it reflects the quadruple bottom line of sustainability: Economic, Ecologic, Social and Cultural. Here the cultural sustainability is seen from the tangible heritage idea. Ecocultural tourism has to be seen as a balanced system of Economic, social, ecological and culture that leads to sustainable development of *Bandipur*.

However, the recent development has also made people realized the need to have a broader thinking and interdependencies with surrounding region in the long run. They believe that *Bandipur* as a lonely community cannot keep on conserving the ecological system. Their development is dependent of the surrounding region as well. The increasing number of tourist and large dependence on the imported food from highway decreasing supply of local food. There is a possibility of region in which *Bandipur* can be a centre of economic activities while the surrounding viilages could act producers.

It has a history of failed market center. *Bandipur* was once a market center for the surrounding region. Many people came to sell their products and buy other products from other parts. This brings forward the regional aspect where there is interdependency between *Bandipur* and surrounding viilages. It has tp be seen as a system of producers and market.

But once the interdependencies broke, the whole system will collapse, and this have happened in *Bandipur*. The shift of market to *Dumre and Damauli* after the construction of highway has moved the market there leaving behind *Bandipur* into fiasco because it has created the



imbalance between *Bandipur* and its surroundings. *Bandipur* could not compete with other emerged centers in terms of accessibility of products and thus collapsed. So, the activities can only be sustainable when there are interdependencies between various settlements within the region where one is market. So, the overall sustainable development planning process has to embrace the overall regional concept.

So, the challenge for *Bandipur* from planning perspective it views through regional aspect. The challenge is to scale up those activities that can cover the broader region. From the methodological perspective, it has to be seen as a balanced system of sustainable economic activities. For the further implication, the tourism development of *Bandipur* has to encompass surrounding region.

This has to do with how economic activities are pursued. The economic activities have to be sustainable (sustainable development)

The economic activities can only be sustainable if it is based on proper management of resource through social well being and equity. There has to be community participation and equity and knowledge and experience have to be shared.

The economic activities should encompass the role and interdependency of surrounding region (regional concept). This also has to do with the sustainability. The *Bandipur* case shows that all the activities are interrelated. It starts from individual – community – region- national-global. Quite often we miss out regional aspect because of influence of globalization. Region has to be seen as a holistic system.

In previous case, the market center moves to another place once the highway was created and probably the political decision, there were places better than *Bandipur* in terms of accessibility and market environment better than *Bandipur* within that region. While in the later case it was solely on the potential of *Bandipur*, i.e. building heritage, climatic condition and scenic values which is good for being touristic center. This related to the sustainability in the economic activities and the challenge is to make that environment intact. So, *Bandipur* has to keep preserving their cultural heritage and ecological condition. The difference between previous market center and now is the type of economic activities. The previous is unsustainable based on the competitive market created by globalization while the current center is based on *Bandipur*'s potential. Now it is based on sustainable resources. This brings forward the issues of sustainability in regional aspect in which the region has to be balanced

## **Sustainable Development perspective in Bandipur**

Even before the tourism industry flourished in *Bandipur*, it was the market centre for the region. However, with the shift of the administrative centre to places like Dumre, Damauli and *Bimalnagar* near the highway, there were few opportunities in Bandipur. So, people were leaving the place. The Ecocultural Tourism has identified the tourism industry as an opportunity and developed plans based on that. This has created the opportunity to people.

The interviews with local people and the project coordinator point out that the first major thing required in case of development is economic opportunities and activities. That can be a market, or industries. However, the challenge is to be sustainable. The previous market center was not sustainable because it was based on potential and resource of Bandipur. Bandipur was simply a place of trading. Once there was more accessible place, it became dead. So, it is very important to identify the potential resource. For Bandipur, the project identifies its tourism potential based on architectural heritage and ecological condition. So, it is important to have sustainable economic opportunities based on the potential resource.

Moreover, Bandipur as a society is strong and communal. The community was once based on the strong trading communities but the decline in their business have fragmented the overall situation. However, the flourishing of tourism has brought the community once together and they continue working together for mutual benefit through tourism. The remarks like *'tourism is a kind of activity, where you can not work and earn singly. It needs the communal commitment. You have to share your success with the fellow entrepreneur.'* So, one cannot be individualistic and should think of social well-being where every individual share their success within society.

Finally, those opportunities have to take into consideration

### **From ecovillage concept**

If we go back to Bandipur and its revitalization, the project was able to create its potential based economic activities. Even though people argue that for the sustainable development, globalization is the biggest devil. However, it

### **From regional concept**

The case of Bandipur also shows that economic activities become sustainable if it also addresses and incorporates the regional approach. For eg Bandipur was the market for the overall region with people from different surrounding villages come.

## **Appendix 7:- A Field Visit Report to Bandipur**



Tribhuvan University,  
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(CARD)**  
Pulchowk, Lalitpur

## **A Report of Field Visit to Bandipur (24 July 2017 to 28 July 2017)**

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## **Abstract**

Before developing any kind of policies, strategies or actions in a particular context, it is always important to understand and get acquainted with the local contextual knowledge. In this research, which is based on understanding sustainable development in local level in Jhong, one of the remote areas, as well as with rich cultural heritage, it is of utmost importance to understand the local contextual background where development interventions are often influenced by cultural heritage (both tangible and intangible) and natural landscape, often denoted by cultural landscape. As such, the researcher visited *Bandipur* to understand culture guided development. The research tries to study various strategies and actions based on three categories: resource management, community organization and knowledge sharing which are deduced from ecovillage literature. Being a qualitative research, it is important to understand the people's perception on recent development and also as a practitioner and a researcher, it is of importance to interpret sustainability in their understanding by connecting them through their livelihood strategies and socio-cultural values. Grounded Theory approach is undertaken to collect data through open ended interviews and then interpreted. The interviews were also interpreted. the report emphasizes on the need to triangulate and categorise into three categories: Resource management, community organsiation and knowledge sharing

## Table of Contents

<b>ABSTRACT .....</b>	<b>1</b>
<b>1. INTRODUCTION .....</b>	<b>4</b>
<b>1.1. Background of Bandipur .....</b>	<b>5</b>
<b>2. PURPOSE STATEMENT .....</b>	<b>6</b>
<b>3. METHODOLOGY .....</b>	<b>7</b>
<b>3.1. Basic Beliefs Adopted .....</b>	<b>7</b>
<b>3.2. Applied Methods/Procedures .....</b>	<b>8</b>
<b>3.3. Challenges.....</b>	<b>10</b>
<b>4. INTERPRETING INTERVIEWS .....</b>	<b>11</b>
<b>5. FURTHER STEPS .....</b>	<b>15</b>
<b>5.1. Triangulation .....</b>	<b>15</b>
<b>5.2. Understanding Feasible methodological strategies.....</b>	<b>16</b>
<b>5.3. Recommendations .....</b>	<b>16</b>
<b>6. CONCLUSION .....</b>	<b>16</b>
<b>REFERENCES .....</b>	<b>17</b>

## 1. Introduction

Even if various historic and contemporary concepts on sustainability exist, there is no universal accepted definition or meaning of the term. Sustainability or sustainable development<sup>1</sup> is acknowledged on the highest political level, but the focus tends to be on resolving issues with short-term focus, which often restrains the longevity of sustainable development. From planning perspective, with the top-down approach to define and implement sustainability issues and bottom up strategies and implementations forwarding practical solutions, the sustainability debate illustrates the incoherence in the concept. The key to sustainability is developing the implementable strategies that balance human nature relationship adopting to local environment using locally available resources without overusing them. This often asks for the place-based interpretations of sustainable development by overcoming the influence of institutional and group interest. While top down strategies are written in terms of global activities, transforming them into local actions require the bottom up approach from the local level. Locally, it is important to enable people to connect various strategies that promote conservation and optimal utilization of natural resources with their livelihood strategies and also undertake social and economic activities. While implementing local level actions, it is often said that development interventions that are responsive to the cultural context and the particularities of a place and community, and advance a human-centered approach to development are most effective, and likely to yield sustainable, inclusive and equitable outcomes (UNESCO, 2012) that are practical and contextual (Duxbury, Hosagrahar, & Pascual, 2016).

With that view, this field research is carried out as a preliminary field visit to understand culture guided development in *Bandipur*. This field visit implies the importance of culture as a factor to generate viable sustainability initiatives (eco-cultural tourism) in developing *Bandipur* as a tourist destination. The field visit tries to connect culture with three different categories that are deduced from ecovillage literature: Resource management, community organization and knowledge sharing. The field visit is meant to understand different roles of culture in Eco-Cultural Tourism project in *Bandipur*.

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<sup>1</sup> The term ‘sustainability’ is here understood as a state while ‘sustainable development’ signifies activities, nevertheless both concepts aim at harmonious triple-bottom line initiatives and structures.

## **1.1. Background of Bandipur**

This ancient trading village lies 8 km up the hill from one of the main country's highways connecting two of Nepal's must-see destinations - Kathmandu (about 135 km) and Pokhara (approximately 80 km) (NTB, 2012) located in altitude of about 1000 m above sea level (McConnachie and Reed, 2009). The chronological development of Bandipur could be divided into three general phases (Pia, 2017): Firstly, development as a famous trade route attracting merchants and trader population second decline phase due to relocation of district headquarters and construction of the Prithvi Highway (early 70s) connecting Kathmandu and Pokhara and third Bandipur as tourist destination in the late 90s which is further promoted by Eco-Cultural Tourism Project in 2005. The town is also accessible by a winding scenic road (8 kms. from Dumre) with vistas of mountains and the valley below. There are other smaller settlements at easy hiking distances such as Ramkot and Bahun Bhanjyang that can also be linked to Bandipur and developed together. Its location provides Bandipur with the potential of an alternative place to stay at a convenient distance between Kathmandu, Pokhara, and Chitwan. This town still retains its century's old traditions and built environment even with its proximity to bigger cities, modern transportation, and enterprising population, which is a major attraction for the growing cultural tourism.

Although Magars were the original settlers of Bandipur, at present Newars are the majority with Bahun, Chhettri, Gurung, Damai, Kami, Sarki, etc. making up a significant portion of the community. The different communities settled at different locations forming a close-knit community that gives this town its unique cultural identity. The Newars in Bandipur migrated from Bhaktapur and brought their rich culture, traditions, and architecture to this picturesque hilltop town that is still fairly intact.

### **Bandipur Eco-Cultural Tourism Project (BECTP)**

Bandipur Eco-Cultural Tourism Project was designed as a sustainable approach to new destination promotion and is supported by the Asia Urbs Programme that was launched by the European Commission in 1998 as an initiative in decentralized (city-to-city) co-operation, to bring together local governments from the European Union and Asia. The European partners of this project, Municipality of Hydra, Greece and Comune di Riomaggiore, Italy have proven experience in promoting and developing tourism for sustainable economic benefit that will be shared with Bandipur (Joshi & Rajopadhyay, 2007).



The principal objective of this project is to build on the existing programmes and infrastructure of Bandipur to develop it as a sustainable eco-cultural tourism centre with a network of similar hill towns to revitalize, protect, and promote their cultural and natural resources with programmes that have replication values.



Figure 1 Bird's eye view of Bandipur Bazaar

## **2. Purpose Statement**

The field visit poses three important objectives:

- to understand how people have been using their cultural values in order to maintain the ecology
- to understand how people, connect their cultural and ecological values in their livelihood strategies
- to understand how people, share their values and knowledge to other people.
- to understand how people, organize in order to carry out various culture and ecology related activities

### **3. Methodology**

#### **3.1. Basic Beliefs Adopted**

The basic belief for knowledge is assumed to be relative that knowledge, truth and morality exists in relation to culture, society, or historical context and are not absolute. That, knowledge generated is subjective and realities are constructed on the basis of socio-cultural and other experiences of the researcher and the researched. That, to gain credible insights and knowledge, emic approach should be adopted in order to study or describe a particular language or culture and lay them out in terms of its internal elements and their functioning rather than in terms of any existing external scheme.

The nature of knowledge thus generated would be of individual reconstruction which would coalesce around the consensus on the complete observational data. The inquiry aim is so better understand the context and reconstruct towards a factual construct. The knowledge accumulation becomes more informing and sophisticated as a result of a vicarious experience. Credibility, trust worthiness and authenticity of the researcher and the researched dictate the quality criteria of output. The approach requires intrinsic ethics where the process tilts towards revelations rather than deception through objectivistic study. Passionate participation is needed as a facilitator of multi voice reconstruction. The accommodation is incommensurable at most with limited commensurability in the nearby vicinity.

The purpose of grounded theory is to develop theory about phenomena of interest, unlike abstract theorizing. The theory is grounded or rooted in observation with no pre-set notions, lets theory emerge from data. it is a complex iterative process and in each stage there is raising of generative questions to guide research. Normally, questions not intended to be either static or confining.

There are two key analytic strategies:

- Coding is a process for both categorizing qualitative data and for describing the implications and details of these categories. Initially one does open coding, considering the data in minute detail while developing some initial categories. Later, one moves to more selective coding where one systematically codes with respect to a core concept.
- Memoing is a process for recording the thoughts and ideas of the researcher as they evolve throughout the study. You might think of memoing as extensive marginal notes

and comments. Again, early in the process these memos tend to be very open while later on they tend to increasingly focus in on the core concept.

### **3.2. Applied Methods/Procedures**

3.2.1. **Unstructured Interviews:** They go further in the extent to which emphasis is placed on the interviewee's thoughts (Denscombe, 1998). The researcher's role is to be as unobtrusive as possible, to just start the ball rolling by introducing a theme and topic and then letting the interviewee develop his or her ideas and pursue the train of thought. Interviewing was done with simultaneously taking notes and recording the audio for future transcribing. While conducting interviews it is essential to select the candidates beforehand who have necessary credentials.

The open-ended interviews were carried out with following personnel:

1. Bikram Pia - Campus chief of Bandipur Campus
2. Laxminath Sharma Bhattarai- Former School Teacher
3. Sister Evangelina - Principal in Notre Dame School
4. Dil Kumari Rana- President of Bandipur Community Homestay
5. Madan Shrestha - Hotel Entrepreneur since 2010
6. Manoj Rajopdhyia- Assistant manager of BECTP
7. Patthar Pradhan - Advisors of Central Hotel Association- Bandipur Bazar Unit
8. Pawan Chitrakar- Hotel Entrepreneur since 2017, previously tourism expert in BECTP



9. Focus group interview with Sanak Kumar Shrestha (President - Central Hotel Association, Tanahun, Bandipur Bazaar Unit), Baisya Gurung (President - Bandipur Tourism Development Committee), and Bipin Pradhan (Vice- President - Central Hotel Association- Bandipur Bazar Unit).



Figure 2 With Mr Bikram Pia



Figure 3 With Mr Bipin Pradhan



Figure 4 With Mr Patthar Pradhan



Figure 5 With Dil Kumari Rana



Figure 6 With Madan Shrestha



Figure 7 With Mr Pawan Chitrakar

3.2.2. **Observations:** It offers the social researcher a distinct way of collecting data that does not rely on “what people say they do, or they say they think” (Denscombe, Observation, 1998, p. 139). It draws upon the direct evidence of the experience of the witness events firsthand. During observation, the researcher moves around area daily and start with general greets and notice what they ae doing. the researcher also makes observations on various



Figure 8 with local boys in tour to Siddha Cave

interventions like road pavement, new construction going on and people's activities around the bazaar area. They were pictured and noted down for further interpretation.

3.2.3. **Interactions:** During the casual interactions with the villagers it was imperative for us to know the context and background of the village and the villagers and also for them to know us. Familiarization with their religious inclination, social dynamics, the physical terrain, the geological formations and others that influence their daily life would provide deeper insights into their live. The researcher has a tour to Siddha Cave with local boys. during the tour, there were some important discussions and their future plan in Bandipur.



Figure 9 Building Trust

### 3.3. Challenges

#### 1. Expectation:

There were some instances that there will be high expectations from the locals (especially villages) or groups on me. This is mainly because coming from the Kathmandu and doing research, they expect me to have money and will implement some sorts of development projects or donate certain fund there.

## **2. Information:**

The information came with all sorts of sought and unsought within the social, cultural and economic nexus and keeping with the interrupted flow of information is not possible and difficult.

While being an outsider is privileged, it was also a demerit in the sense that you are not included in some of the observant activities and there were few instances that the information came filtered or they didn't want to share. this was mainly due to lack of trust

## **3. Environment:**

Another difficulty was a lack of privacy where there were cases that I lost his/her privacy because of the cultural difference. In some cases, anonymity of the informants and key stakeholders had to be maintained. The challenge was also to conduct observations understanding their level of privacy at the particular situation and the gender difference that might limit the number of female respondents mainly due to cultural difference and incompatibility.

## **4. Interpreting Interviews**

In any settlement, it is important to have any kind of livelihood activities such as agriculture, tourism, trading or industries apart from basic infrastructure. Many of those activities are based on the available resources that could be both natural or artificial. Such settlements generate knowledge on those activities, share with fellow settlers and hand over to future generations as well. Those activities require the community's participation and commitment. The community is organized or institutionalized to administer participation and commitment in using, managing and conserving those resources (social, knowledge, organization based). It is impossible to imagine any settlements that don't have any potential or resource based activities and can be designated as the livelihood activities. In today's context, those livelihood activities have to be interpreted in terms of economic pursuit in order to develop

community organization and knowledge generation. It shall be ideal to have settlement not influenced by economic activities (unless they are influenced by spiritual philosophy). However, the challenge is to make those livelihood strategies sustainable from economic, social as well as ecological context.

The historic development of Bandipur illustrates livelihood activities-based development. It was once a market centre for surrounding region, but it lost its glory once the highway was made. The market centre moved to highway-nearby centres like Dumre, Damauli and Bimalnagar because they were closer to highway and is more accessible than Bandipur. The easy accessibility of new emerging centres dwarfed Bandipur bazaar and thus diminished its livelihood strategies based on market and trading. There was situation when local people have to hire people to look after their houses while they move to Kathmandu or Chitwan to do business. Many people in Bandipur Bazaar have lifestyle and livelihood strategies that are based on business and trading. They were entrepreneurs and so they move out to places where they could do business. This brings forward the issue of sustainability. The collapse of settlement had to do with the limited opportunities in economic pursuit, one of the three pillars of sustainable development. From the methodological perspective, the system of three pillars was not balanced because of limited economic opportunities. So, people started to move out because of unsustainable scenario.

This also arose the question why there was such an unsustainable scenario. Unlike many present sustainable issues, there was no ecological disaster or exploitation of natural resources but national level planning. This is mostly due to national level planning interventions. The administrative restructuring that shifted administrative centre and market to another place has brought that imbalance<sup>2</sup> in terms of infrastructure development planning. Additionally, to the highway construction, it seems the planning restructuring and physical interventions didn't consider regional scenario and consequences of such decisions. They probably hadn't considered the existing scenario and relationships (socially, ecologically, and economically) and the impact of those interventions or even if they did, they hadn't thought of the decline of Bandipur. This doesn't however necessarily mean that highway should not have been made or restructuring should not be made. Those were probably wiser planning decisions with respect to the national interest of easy transportation. But what probably could

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<sup>2</sup> Probably when these decisions were made, the planners were not aware of sustainability or sustainable development.

have been done is that the planning policies could have consider the impact it could have at the local level. This has always been characteristics of top down planning process in which national level planning practices often bypass local level impact.

Locally, people realized that tourism, medical and education could be potentials that could revive their settlement (they called it THE - Tourism, Hospital, Education- Bandipur). The Notre Dame High School was established in 1987. Children from surrounding villages come and studied as resident's students. Also, hospital was established. However, that could not bring proper livelihood opportunities. There were few instances of tourism industry. However, lack of proper strategies, proper promotion and political willingness could not uplift the worsening situation. The Ecocultural tourism project 2005-2006 identified tourism potential. There were basically two aspects: one being the ecological setting and another traditional building heritage. The combination of natural landscape with cultural setting was a good package for tourism which the project identified and promoted. In a way, the project made the people believe in tourism industry. It is local based intervention where people are one of the partners and collaborators. The local based actions involved locals in implementation, capacity building and management of various activities. The aim was to bring the communal ownership and sense of belonging. The project understands the existing community organization and implement various actions on the basis of such community organizations during their design and implementation years, 2005-2006.

Community participation and collaboration was one of the key features comparing to the previous initiative. Further, the new livelihood opportunity was based on the potential of Bandipur that is architectural heritage in the backdrop of natural landscape. Quoting to Manoj Rajopadhyaya, it was already a package of great tourism potential and the project only did marketing and presented to local entrepreneurs as well as global tourism market. Further being entrepreneurs, knowledge creation among the locals knew the importance of tourism industry for the future of Bandipur and their livelihood strategies. Their concern and knowledge is shared by next generation who are also involved in this hospitality business. Assumedly coming generations are learning the hotel entrepreneurship and even following the footsteps based on their predecessor's experience. Bandipur is heading to the future where new generations are exploring the new trends in hospitality business while acknowledging the experience and knowledge of the previous generation. This is slowly building culture whose values are based on heritage (both tangible and intangible) and ecological conservation and



the next generation seem to be following footsteps, which is one of the key characteristics of sustainable development, a balanced development (contrast to economic pursuit based development). It seems that locals of Bandipur are managing their resources (natural and artificial) for their future livelihood strategies through community participation, commitment and equity in well-being. So, it can be inferred that Bandipur is heading to sustainable development through developing livelihood strategies managing their resources, community organization and knowledge sharing.

Further, after 12 years of project completion people have realized that development cannot be constrained around the market square only. The growth of tourists demands better and more infrastructures as well as maintenance of the ambience in the existing environment (social, ecological and economic). Pathhar Shrestha, one of hotel entrepreneurs who have been running hotel for the past 25 years share his experience by saying, 'Tourism is a kind of entrepreneurship which cannot be successful by single person effort. It is the combination effort and various individuals have to share knowledge and success. Further in a long run even the single community alone cannot continue the success and development, but other surrounding communities also have to collaborate in the overall process.' This statement shows the concern for longevity of the development. So, the locals from their experience believes that the overall region could be developed if the local government could develop long term policies based on recent initiatives. From planning perspective, this can often be referred as scaling up local actions into long term strategies for sustainable development. In order to do so, the people have realized that the initiatives have to broaden to surrounding regions as well and are lobbying for local government interventions who can develop the long-term strategies so that all surrounding regions can coordinate and collaborate for the regional development. From the sustainability perspective, the development becomes sustainable if the actions and strategies cover the broader regions.

So, the case of Bandipur illustrates the sustainable development from planning and methodological strategic. Like many sustainable debates, from planning perspectives, it is important to have coherence in both policies and actions. Here, eco cultural tourism project can be seen as local level actions that connect livelihood strategies to their resource/potentials (architectural building heritage and ecological setting). By doing so, project is solving livelihood issues and was successful. This is scenario of many sustainable development projects, a short term, solution oriented and target oriented, often connecting livelihood

strategies to resource management, community building and knowledge generation. This is in a way narrow understanding of sustainability because sustainability is a process through time (next generations) and many of sustainable development projects limit themselves to achievable visible targets. In case of Bandipur, even though project was completed, the process is going still as the project team continue to follow up the process of promoting tourism through cultural landscape (quoting to Manoj Rajopadhya) and there is a strong support from local entrepreneur as well. There was a development of culture in which people consciously discusses on how any of the activities or decisions will impact their cultural landscape, which they think should be sustained for future generations as well rather than only thinking how their problems could be solved. So, here sustainable development is understood by locals of Bandipur not only by linking their livelihood strategies to their resources but also linking to future generations on how they can continue on resource management and community organization, i.e. knowledge generation and exchange, one of the key features sustainable development. Sustainable development has to be understood contextually in a broader sense from future generation perspectives.

For sustainable development, it is also important to integrate surrounding regions. Managing resources (especially natural) is not one settlement job. While different settlements are involved, it is also important to develop strategies that could also address the potentials of other settlements in an integrated manner. So, these actions have to be developed into strategies that can even cover surrounding regions for sustainable development. The case illustrates that sustainable development cannot be constrained into local level spatially for short period of time. So methodologically, sustainable development has to see region as a system of relationship and interdependencies expressed through broader spatial dimensions through time.

## **5. Further Steps**

### **5.1. Triangulation**

The information compared with the reality, applying insights drawn from that comparison, and ideas for the desired improvements. The PhD is exploring various types of triangulation strategies. Triangulation is the combination of various theoretical perspectives, methodological approaches, data sources, and investigators and data analysis methods (Thurmond, 2001). The intent of using triangulation is to decrease, negate or counterbalance

flaws in the study and increase the ability and authenticity of the findings. However, the focus would be on methodologic triangulation by combining various qualitative and quantitative approaches, theoretical stances and methods within the study.

## **5.2. Understanding Feasible methodological strategies**

After triangulation, PhD will explore the possible interventions and their feasibility. Comparing the models on the basis of the 4 perspectives with the 'reality' may start to reveal areas of contradiction and synergy that suggest possible strategies (Williams, 2005). The identification of potential stakeholders and understanding their role within the social structures are the key aspects for the inclusive decision making process (Singh & Keitsch, 2014). While comparison of the models creates a large range of possibilities (Williams, 2005), the analyses the stakeholders, their role and creating the context for their inclusion test the feasibility of the activities (Singh & Keitsch, 2014).

## **5.3. Recommendations**

This is where the PhD comes full cycle with recommendations for expansive learning and future action. The PhD shall develop recommendations based on insights that result from broad theoretical and empirical studies for the overall EnPe project, as well as for stakeholders in academia and practice. The research's various dimensions provide a deeper understanding of situations that occur between the different levels of sustainable/ eco-village/region analyses and design. The recommendations also aim at setting new point of departure for further research and development. This concerns activities of policy-makers, local entrepreneurs and academia, who hopefully and in concert will get new inspiration for local and regional and national sustainable development.

## **6. Conclusion**

The field visit has been successful in the context that as a researcher, I have been able to introduce myself. It was generally getting acquainted with the scenario, understanding their socio-cultural values and trying to observe and listen some sustainability issues. Another field visit is scheduled in December 2017 for making more detail analysis and more focuses interviews based on literature on ecovillage and linking with culture. The previous visit shall help in next visit to be familiar with the context and develop multi criteria for more focused interviews.

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## **Appendix 8:- Questionnaire Sample to Hurdal EV**

How did the ecovillage develop?

**Resource (energy, infrastructure, transportation, money)**

1. Is this the traditional community using traditional practices or it's an intentional community with new ways of using resources?
2. What are the main sources of income for the people in this ecovillage? Do they have local economies sustaining within the village? Do they produce surplus to another region as well?
3. What different innovation technologies are used at the start and how is it developing?

**Knowledge (practices, understanding)**

1. How do they develop the knowledge on ecovillage lifestyle?
2. Apart from traditional practices, do they use any new practice to develop ecovillage?
3. How do they introduce new practices within the community, and do they improvise them for community practices?

**Community Organization (cooperatives, gatherings)**

1. How they define their community? What was their goal?
2. Has their goal changed?
3. When the ecovillage was started, were there diverse people? If yes, how this diversity is addressed?
4. Has the community goal had changed since its beginning?
5. Do you have co-ops, if yes what kind of was it and how has they developed?
6. How do the communities organize during conflict and consensus development?

What was their motivation?

**Resource (energy, food, money, infrastructure)**

1. Now continuing as a community, how do they see their motivation to continue? Are they happy with the resources they have?
2. Do they want any improvement with the current resources and use of their resources in order to continue life in ecovillage?

**Knowledge**

1. How is their knowledge of sustainable living helping to continue life in ecovillage?
2. Is their knowledge enough or rudimentary in terms of their motivation? Are they satisfied?

**Community Organization**

1. How do people organize for consensus building in case of decision making?
2. Is the current social organization motivating to stay in ecovillage? If yes, what are good aspects? If no, what things have to be changed?
3. Are there any conflicts, if yes how are they solved and what are the topics of conflicts?

What cultural activities take place in community?

**Resource**

1. What are the traditional practices that they are continuing in terms of using resources? What is good about it and what is not?
2. What cultural practices do they have in order to reduce the higher consumption of resources?
3. What are some of the cultural practices which the community thinks exploit the natural resources?

**Knowledge**

1. How the knowledge is transferred to various people through cultural activities? For e.g. like agricultural practices? Do they have certain traditions to do so?
2. What are the traditional practices of lifestyle they are following? If yes how they were transferring this knowledge within community and intergeneration?

### **Community Organisation**

1. Are there any cultural practices or traditions to do community organization? Is it still happening? If yes what is the good thing about it?
2. How the new community member is addressed in the community? Are there any cultural acts to introduce the diversity?
3. How do you see your relationship with other communities in the region?

### **Resource**

1. How people share their resources in terms of houses, materials, energy, jobs and other things within the community as well as among communities in the region?

### **Knowledge**

2. Is there any mechanisms or practices in which they communicate with other communities in sharing their sustainable practices to each other?

### **Community Organization**

3. How do different communities gather? What are the basic topics during their organization?
4. If different communities have to work together, how do they do that?
5. In those kinds of organizations, is there any discussion or activities around sustainable practices like energy, land, organic farm stuff?

How do you see the future of Ecovillage?

### **Resource**

1. How the people will be using the resources? What shall be motivation for that?
2. What kind of innovation practices that the ecovillage shall be using and Why do you think these innovation practices are necessary?

### **Knowledge**

1. What is the knowledge that is important to share and gain in terms for future? How should be share and inform to future generations?
2. What practices on resources should the future generations look in for future? What shall be about mechanisms to share that knowledge within regional context?

### **Community Organization**

1. How the future communities should be?
2. Is there any room for the traditional practices in those communities? Will they have binding effect?
3. Can the communities be interconnected within certain region? If yes what could be the binding factor?
4. Can ecovillage concept be realized into bigger regional context through collaboration of various communities?



**Appendix 9:- Interview Sample with one of the Respondents in Jhong**

Date 22/11/2018

Interview with woman in Jhong who has been living for past 25 years after getting married

*What are the differences in Jhong when you first came to Jhong and now?*

There has been lot of difference especially in infrastructure development. There was no electricity, telephone services, roads, problems in firewood, and schools. Now, there are facilities. Also, the main livelihood source used to be agriculture. Now, people have gone either to cities or abroad for earning. Remittance become a major source of income. There are less agricultural fields now.

*Apart from all these development changes, how the forest management has been carried out in Jhong?*

When I came, there used to be thin forest. Also, the forest that the people of Jhong can use is far from settlement. So, it was difficult for women to go to forest and pick firewood. Also, there is local system on when to cut trees and what kind of trees. However, there was no restriction on the schedule to pick the dry twigs. But one cannot cut or pick the fresh trees or branches. Otherwise you are penalized.

*Could you elaborate on development of forest management in Jhong?*

If I am correct, First came CARE Nepal before ACAP. It was actually, CARE Nepal that initiated forest management committee for Jhong. The forest of Jhong is called Chherathang. So, the committee's name is Chherthang conservation committee (Chhethang samrachyan samite, in Nepali). Later, Jhong became a part of ACA, ACAP gave the committee various materials for afforestation and maintenance of the forest, like water pipes, and seedlings.

*How many members are there in the committee and what is the term period of each committee?*

I exactly do not know, but I think it is 5- 6 personnel. The term period is around 3 years. Now I am also the members of it. The members are selected from the mass meeting in the village. The Mukhiya calls for the mass meeting for selection of new members in the committee.

*Apart from Forest Conservation Committee, are there any other committees related to various development or entrepreneurship aspects?*

I exactly do not remember, but there used to be Hotel entrepreneurship Committee. But there are only two families involved in hotel entrepreneurship. One of them is me. There is also

small irrigation and agriculture entrepreneurship committee. Through agriculture entrepreneurship committee, the farmers get seedlings for apple farms. Till now, the apple farms harvest small number that are limited to household purpose. Locally, the sheep owners have group.

*Do you see any potentials in Jhong that can be enlarged to bigger entrepreneurship?*

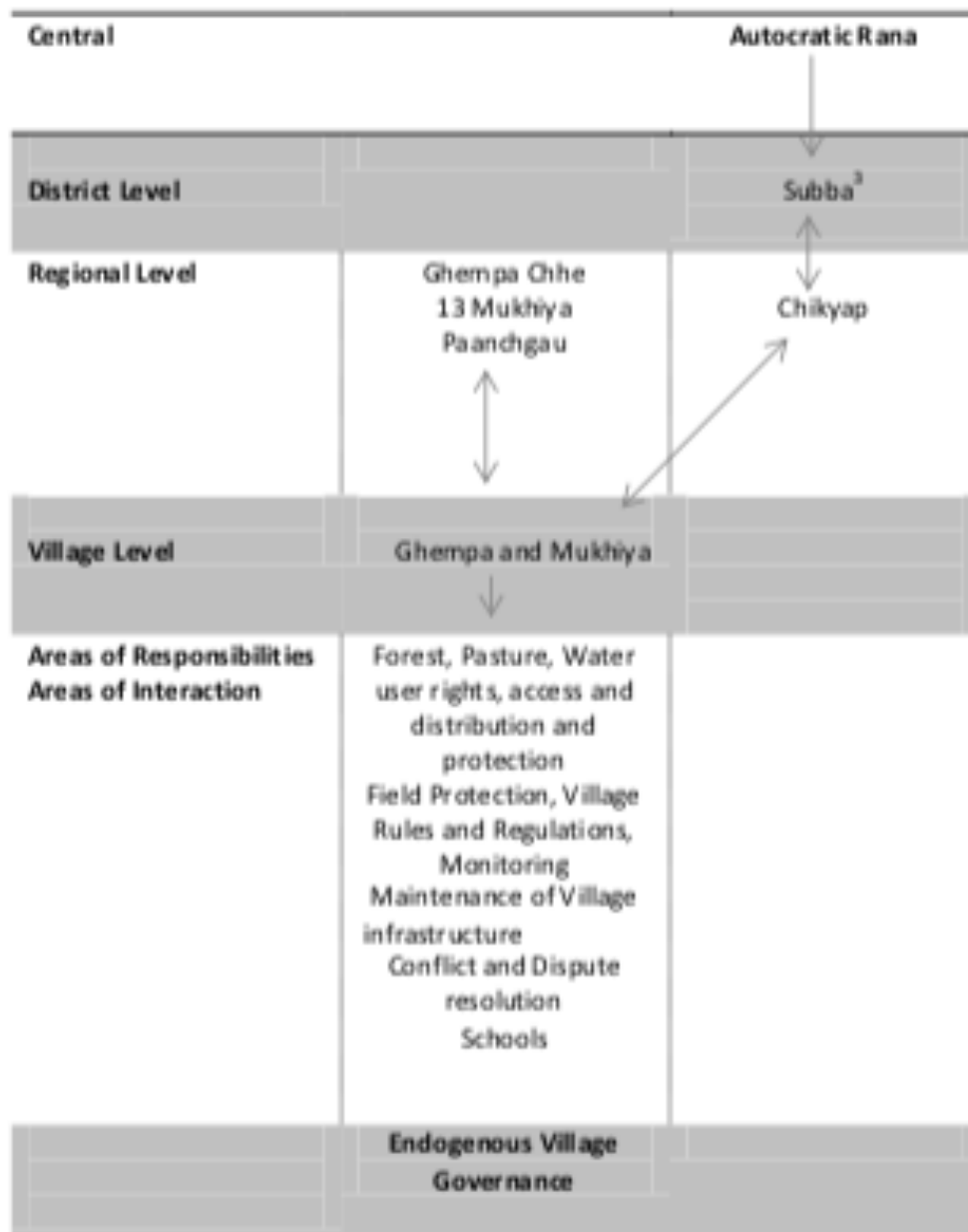
I think agriculture is the one. We do not have tourism potentials like Muktinath or Kagbeni. In agriculture, one can generate income through potato, and now apple.

*What do you think should be done in order to broaden up the entrepreneurship of apple or potato?*

It is clear from the existing scenario that it cannot be done alone. The biggest problem for our village is the declining population. Younger generations are moving out of the village and living in cities like Pokhara and Kathmandu or abroad. In cases, they don't want to work in farm. As such most of the farm is barren. Now for us also, we don't have enough people to work in farm. In older days, we used to share our labour with other families. Now we have to hire people to do farm work from other villages. For example, in apple farm, lot of people are needed for maintenance and take care of plants. I don't think we have bigger apple farms that can export apples outside village. We simply don't have enough manpower even if we work in a communal way. Same is the case for tourism. So, I am very pessimist about the development of our village through them even though we have good opportunities in terms of agriculture. We don't have enough people to work as a community.

## Appendix 10:- Endogenous Environmental Governance Structure of Jhong

(Source:- adapted from Thakali (2012))



**Appendix 11:-A Field Visit Report to Mustang**



Tribhuvan University,  
Institute of Engineering,  
Pulchowk, Lalitpur

## Field Visit Report

**Supervisors:**

**Prof Dr. Mahesh Shrestha**

**Prof Martina M. Keitsch**

Submitted to:

Centre of Academic Research and Development  
(CARD)

Department Research Committee (DRC)

Submitted by:

Bijay Singh  
CRN: 072/PhAE/202

Date: Dec 10, 2018

## **Executive Summary**

Before developing any kind of policies, strategies or actions in a particular context, it is always important to understand and get acquainted with the local contextual knowledge. In my PhD research, which is based on understanding sustainable development in local level in case of one of the remote areas, as well as with rich cultural heritage, it is of utmost importance to develop the contextualized strategies in bottom up approach. Being a qualitative research, it is important to understand the people's perception on recent development and also as a practitioner and a researcher, it is of importance for me to interpret sustainability in their understanding by connecting them through their livelihood strategies and socio-cultural values. So, the main objective of this field research aims to understand the local contexts in terms of sustainability. However, the field research also aims to verify and triangulate the results based on the previous field researches. The current research also aims to understand the context so that various sustainability issues and interventions could be connected to their livelihood strategies and socio-cultural values and most importantly governance structure.

Various narratives from the local stakeholders and ACAP staff were undertaken to collect data and be familiar with the context of Jhong and to uncover the socio-cultural aspects of the village in order to understand the existing context of village in the prevailing governance structure.

## Table of Contents

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>GLOSSARY .....</b>	<b>4</b>
<b>LIST OF ABBREVIATIONS.....</b>	<b>5</b>
<b>1. INTRODUCTION.....</b>	<b>6</b>
1.1. BACKGROUND OF JHONG.....	7
<b>2. METHODOLOGY .....</b>	<b>8</b>
2.1. BASIC BELIEFS ADOPTED .....	8
2.2. APPLIED METHODS/PROCEDURES .....	8
2.3. CHALLENGES .....	9
<b>3. FINDINGS- INTERPRETATION OF INTERVIEWS .....</b>	<b>10</b>
A. SYSTEM THEORY .....	10
B. DESCRIPTION OF ACAP .....	10
C. DESCRIPTION OF JHONG FROM INTERVIEWS.....	12
D. LIVELIHOOD ISSUES AND CULTURAL VALUES.....	12
E. SYSTEM ANALYSIS OF JHONG WITH RESPECT TO BROADER REGION ACA.....	13
<b>4. FURTHER STEPS .....</b>	<b>15</b>
4.1. TRIANGULATION.....	15
4.2. UNDERSTANDING FEASIBLE METHODOLOGICAL STRATEGIES .....	15
4.3. RECOMMENDATIONS.....	15
<b>5. CONCLUSION.....</b>	<b>16</b>
<b>REFERENCES .....</b>	<b>17</b>



## Glossary

Ama Samuha (आमा समूह) - Literally means a group of mothers, is a group of women representing each household of the village to co-ordinate and conduct various activities pertaining to the welfare of the village like cleanliness and sanitation. The women when reach an age of 60 they have a choice to retire and replace them by the other junior women like her daughter-in-law.

Youth Club – Like *Ama Samuha* is a group of mothers, youth from every house hold in the village is a member of the Youth Club and work on sustaining the culture and other aspects of the village with conducting and participating in *Yartung* Festival (archery and others).

Village Development Committee (VDC) – This is a governmental committee formed by a general election in the village with its constituent wards.

Gaun Mukhia (गाउँ मुखिया) – This is a post signifying the chief or the head of the village. In Jhong village the *gaun mukhia* is selected annually through lucky draw among the men from each house hold of the village.

Gumba (गुम्बा) – monastery

Annapurna Conservation Area Project (ACAP) - Launched in 1986, the Annapurna Conservation Area Project (ACAP) is the largest undertaking of National Trust for Nature Conservation (NTNC), Nepal and also the first Conservation Area and largest protected area in Nepal. It covers an area of 7,629 sq. km. and is home to over 100,000 residents of different cultural and linguistic groups. ACAP is rich in biodiversity and is a treasure house for 1,226 species of flowering plants, 102 mammals, 474 birds, 39 reptiles and 22 amphibians. (Annapurna Conservation Area Project, 2016)

Yarsagumba - *Yarsagumba* with its Latin name *cordyceps sinensis* literally means summer plant and winter insect in Tibetan. Before the rainy season begins, spores of the *cordyceps* mushroom settle on the heads of caterpillars' that lives underground. The fungus gets so much into the body of the caterpillars' that it grows out through its head and drains all the energy from the insect and ultimately it dies. (Yarsagumba - The Gold Rush, 2016)

B.S. – *Bikram Samvat*

## **List of Abbreviations**

AC – Alternating Current

ACAP – Annapurna Conservation Area Project

AEPC – Alternative Energy Promotion Centre

CAMC – Conservation Area Management Committee

CBS – Central Bureau of Statistics

DDC – District Development Committee

HID – High Intensity Discharge

HPS – High Pressure Sodium

NTNC – Nepal Trust for Nature Conservation

UNDP – United Nation Development Project

VDC – Village Development Committee

WCED – World Commission on Environment and Development

WWF – World Wide Fund

## 1. Introduction

Even if various historic and contemporary concepts on sustainability exist, there is no universal accepted definition or meaning of the term. Sustainability or sustainable development<sup>1</sup> is acknowledged on the highest political level, but the focus tends to be on resolving issues with short-term focus, which often restrains the longevity of sustainable development. From planning perspective, with the top-down approach to define and implement sustainability issues and bottom up strategies and implementations forwarding practical solutions, the sustainability debate illustrates the incoherence in the concept. This has to do with narrower sustainability researches that theorized mainly focusing on describing the concept, rather than understanding it. Most of the effort of interpreting the concept is to a large extent influenced by the fundamental beliefs of the specific group of organization. They are aimed at measuring the sustainability in terms of goals or achievements that groups want to achieve rather than capturing and interpreting them into a holistic picture. This has direct impact on the planning process. So, from planning perspective, the keys to the sustainability is developing the implementable strategies that balance human nature relationship adopting to local environment using locally available resources without overusing them. This often asks for the place-based interpretations of sustainable development by overcoming the influence of institutional and group interest. Some authors claim that sustainability has different levels: personal, communal and global (Waerther, 2014). While top down strategies are written in terms of global activities, transforming them into local actions require the bottom up approach from the local level. At global level, the overarching goal of these concepts is to improve the quality of life while promoting conservation and optimal utilization of natural resources. Locally, it is important to enable people to connect various strategies that promote conservation and optimal utilization of natural resources with their livelihood strategies and also undertake social and economic activities.

Many sustainability interpretations are too generic and semantics, which express the harmonious relationship among three dimensions: social, economic and ecological. Contextually, there is always conflicts and competes among these three dimensions in implementing activities. So, sustainability has to be understood as the holistic system that balances competes and conflicts among three dimensions: social, economic and ecological). In reality, there is a need of development of comprehensive understanding and tools on how these dimensions (social, economic and ecology) interact and work with each other in a holistic system framework of sustainability (Vann, Pacheco, & Motloch, 2006) that can address the sustainability issues.

With that view, this field research is carried out as a triangulation and verification of results of previous field visits and various literature reviews related to sustainability at local level. The study also attempts to unveil the existing different governance structures (traditional, ACA and DDC) and at the same time overlapping issues for different structures

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<sup>1</sup> The term 'sustainability' is here understood as a state while 'sustainable development' signifies activities, nevertheless both concepts aim at harmonious triple-bottom line initiatives and structures.

## 1.1. Background of Jhong

Mustang lies on the Himalayan region in between Tibet (China) and Manang district. Mustang district is divided into the two parts i.e. Mustang and Upper Mustang. Mustang is situated as a political border East-Manang, West-Dolpa, North-Tibet and South-Mygdi district. Lower Mustang is situated north in the Dhaulagiri Zone and has the total population of 13,000. Mustang is a popular tourist destination for trekkers. More than Twenty-three thousand tourists visited Mustang in 2007. In addition, thousands of Nepali and Indian pilgrims visit Muktinath, a must-visit holy shrine of Hindus as well as Buddhists. Total number of visitors has reached



*Figure 1 Overview of Jhong*

over 37,000 in 2010 (CEPAD, 2011)

Jhong is a historical village that currently lies in Lower Mustang region of Annapurna Conservation Area (ACA). The overall Mustang region is known for its old trade and pilgrimage routes. The village is a part of high Himalayan regions with scarce resources like fuelwood and harsh climatic conditions for agriculture farming. However, it is important to note that these settlements at such high altitudes have survived all the changes and still continuing its existence, a case of sustainability in resource scarce area. Jhong is also a part of high Himalayas settlement still continuing their existence. A number of things favoured the choice of Jhong as the case area to explore sustainability and EV- in particular its extreme living conditions for humans. It is important for the study that the relationship between nature (resources) and human being is particularly important. Further, from the cultural point of view still, the primary livelihood activities are still agriculture and livestock and is isolated from the tourist-pilgrimage route even though being a part of conservation area and near to a famous

pilgrimage site-Muktinath. The traditional cultural landscape is still maintained in terms of land uses for farming and grazing. Following that many youths are abroad or in cities like Pokhara and Kathmandu for employment and education opportunities. With varying external exigencies and changing scenario especially in case of declining population, the village in itself have same agro-based lifestyle.

A preliminary glance study reveals its ancient history and traditional community organization system. This has been one of the major reasons for selecting Jhong as a representation of typical village where grass root initiations in terms of sustainable development is implemented.

Preliminary studies and literature reviews witness several thousand years of settlement through narratives. Archaeological studies carried out in caves around Khinga, Jarkot and Jhong also reveals its historic existence. However, this study is not focus on such historical archaeology and settlement geography but rather interests on the various practices and traditions in terms of community organisation that is still prevailing in the village. These aspects are derived from the previous studies on EV. With such a historic longevity, it is important here to mention that the settlement processes and development should not be viewed in isolation from the likewise constantly changing natural environment, the dependencies and reciprocal relations between man and nature. Looking from a system perspective, therefore the concern for the current study is to analyse numerous relations between the man and its landscape in managing the resources. The study aims to look at various practices on resource management and the knowledge associated with that and various community organization systems prevailing in village in terms of making decisions, authority and responsibility for resource management.

## **2. Methodology**

### **2.1. Basic Beliefs Adopted**

The basic belief for knowledge is assumed to be relative that knowledge, truth and morality exists in relation to culture, society, or historical context and are not absolute. That, knowledge generated is subjective and realities are constructed on the basis of socio-cultural and other experiences of the researcher and the researched. That, to gain credible insights and knowledge, emic approach should be adopted in order to study or describe a particular language or culture and lay them out in terms of its internal elements and their functioning rather than in terms of any existing external scheme.

The nature of knowledge thus generated would be of individual reconstruction which would coalesce around the consensus on the complete observational data. The inquiry aim is so better understanding the context and reconstruct towards a factual construct. The knowledge accumulation becomes more informing and sophisticated as a result of a vicarious experience. Credibility, trust worthiness and authenticity of the researcher and the researched dictate the quality criteria of output. The approach requires intrinsic ethics where the process tilts towards revelations rather than deception through objectivistic study.

### **2.2. Applied Methods/Procedures**

Method wise the case study of Jhong embraces two-fold approach. The intention on one hand is to understand the local perceptions in understanding practices and strategies in using the

natural resources and sharing with other communities in the region by evaluating as broad their narratives through three categories, resource management, community organisation and knowledge sharing which are derived from the EV studies in previous section. Secondly, starting from the perspective of sustainability, how the local level development initiations could be embraced in the global perspective of sustainable development through regional cooperation like the concept of ACA. The first findings are based on continuous observation and interviews with the local people for the past 3 years. The researcher visited the case area, Jhong as a student and have observed various practices of local people that are associated with management of natural resources like firewood collection and forestations, water irrigation system, agriculture and grazing areas. Further, the researcher has collected narratives from various local people in terms of their traditional practices on management of those resources and also collected their perceptions on today's practices implemented by government officials and NGO. Being a very exclusive ethnic group, it was very difficult to have participant observation. However, the researcher has made the good relationship with a local family, which is also the entry point for the researcher to get into the lifestyle of a household in Jhong. The observations were also made on their community organisational structures and various organisations prevailing in the community. The open-ended interviews with the local people are conducted for gaining more knowledge from the local perspectives, which also used for verifying findings derived from researcher's observation. The information gathered are organised and then analysed which are further triangulated with the interview from various external stakeholders like government officials,



Figure 2 Building Trust

### 2.3. Challenges

#### 1. Expectation:

There were some instances that there will be high expectations from the locals (especially villages) or groups on me. This is mainly because coming from the Kathmandu and doing research, they expect me to have money and will implement some sorts of development projects or donate certain fund there.

#### 2. Information:

The information came with all sorts of sought and unsought within the social, cultural and economic nexus and keeping with the interrupted flow of information is not possible and difficult.

While being an outsider is privileged, it was also a demerit in the sense that you are not included in some of the observant's activities and there were few instances that the information came filtered or they didn't want to share. this was mainly due to lack of trust

### 3. Environment:

Another difficulty was a lack of privacy where there were cases that I lost his/her privacy because of the cultural difference. In some cases, anonymity of the informants and key stakeholders had to be maintained. The challenge was also to conduct observations understanding their level of privacy at the particular situation and the gender difference that might limit the number of female respondents mainly due to cultural difference and incompatibility. All the interviewees do not want their names to be stated in the report.

## **3. Findings- Interpretation of Interviews**

### **A. System Theory**

Many times, locals are blamed for all the environmental woes. As such, in order to protect forest and wildlife, affected areas were designated as national parks and reserves, prohibiting the local people from the use of natural resources without providing any alternatives this often has led to a continuous conflict between park and people since the first national park was established in Nepal in 1973.

From the system's perspective, the approach relates to GST since it considers mainly the ecological relationships. It often ignores how the local people value the resources and the way they manage them. Mostly nature conservation is a top down approach as in case of National parks and conservation areas. Jhong as a social system do have definite roles of people in terms of conservation and development initiative, but their roles are often ignored.

From the interviews, this approach limits the responsibility solely to local people only that ignores broader impact, environmentally, economically, socially and locally. Both local respondents and several authors mentioned that it is important to acknowledge the fact that conservation cannot only be for the sake of the rich and elite.

### **B. Description of ACAP**

ACAP is considered as an alternative model of the protected area management that will strike a balance between conservation and development. Unlike the conventional model of conservation where a fence and fencing approach is used to protect the forest and wildlife, the alternative model seeks to integrate local people in the management of conservation.

The aim of ACAP is to integrate conservation for sustainable rural development and empower local people to protect, conserve and utilise their natural resources.

What ACAP and other projects are lacking now is a value inclusive approach. This means that ACAP is widely limited in its implementation approach in terms of laws, rules and policies. While participation has been well acknowledged by ACAP, most of the local

values have been ignored or misinterpreted. As one interviewee (male 28) stated, *'for them (ACAP) nature protection means conservation for us its part of our daily livelihood.'*

ACA at the initiation calls for the participation of the local people as a partner in conservation, giving them the responsibility in conserving diversity while empowering them to utilize the resources in a sustainable manner.

Protected area management is moving towards participatory management as a progressive shift in both concept and approach (Bajracharya, Gurung, & Basnet, 2007; Lama, 2016). However, the agenda setting process of conservation still continues to be dominated by government and international agencies, keeping the local people aside and undermining their role (Bajracharya et al., 2007). Bajracharya et al. (2007) pointed out that ACA acknowledges local knowledge systems and experience of local environment, socio-economy and culture, and technological innovations for sustainable conservation of biodiversity in the area.

Further, biodiversity conservation and protected area (PA) are both dynamic processes that change over time and space (Bajracharya et al., 2007). Nepal's conservation policies have been evolving from a single species- protection to landscape management, and from strict protection by armed forces to community participation (KMTNC, 2006 cited in Bajracharya et al., 2007, p. 56). This shows the integrative approach of conservation policies looking at the whole area from systemic perspective rather than individual species. Also focusing on landscape management also illustrates the acknowledgement of human relations to the resources and the development aspect of it.

ACAP (now ACA) is considered as the Community based conservation (CBC) involves local communities in planning, decision making, implementation and monitoring of conservation efforts (Bajracharya et al., 2007).

Many times, involvement of local communities is reduced to efforts to minimise the cost of management, for example relocating the people after displacement. This illustrates that the development aspect is considered as subordinated to the conservation goals. However, in the interviews it was also mentioned may be used as a bait for local people to motivate them doing conservation.

Various programmes on natural resource conservation, alternative energy, agriculture and livestock development, tourism development, gender development, community development and capacity building are being implemented through local conservation area management committees (CAMCs) (Bajracharya et al., 2007).

ACA adopted the integrated Conservation and Development Programme (ICDP) approach to address the problem of conserving the fragile environment while improving the socio-economic conditions of local people. The interviews with local people give, however several hints of the defacto unequal status of conservation and development. The objectives that includes socio-cultural practices, community development, promotion of indigenous knowledge, development of ownership feeling and responsibility at individual and community and government levels often miss out the communal values and their relationships with the natural resource and the landscape.



In some cases, however, local skills and management have been considered. For example, in forest management. Here, additional knowledge provided by ACAP could contribute to add to existing local expertise, such as fuelwood allocation mechanism, plantation and even conservation.

Overall, development and conservation institutions even so governmental initiatives do not seem to be acting in coherence. Locally, in some cases, it would have been beneficial if the Mukhiya system had more power considering the fact that the local people will review, accept and model according to their values and act accordingly. But the traditional system seems to be still lacking that authority and role of the governance system.

### **C. Description of Jhong from interviews**

As per Jhong, there are three institutions: conservation institutions, development institutions and local Mukhiya Governance system. Both conservation and development institutions, if we look from social system perspective is goal system, that means they set goals for the locals. While the mukhiya system, in a way can be seen as integrative system that have their communal values and in a way transfer norm to the local people. In case of forest management, it seems that Mukhiya system have actually managed the environmental conservation aspect as well as development aspect related to forest management.

As a system, Jhong as a community has both formal and informal institutions. Formal institutions basically include government representatives and are the external organisations with certain goals. Informal institutions include Community based organisations (CBO) which have certain tasks. From a sustainability perspective, it is important that sustainability practices are continued. These community organisations are formed based on the local resource governance structure with certain tasks and are continued for the proper management of the resource. Various researches and interviews supported the need for continuing traditional or indigenous resource management practices and suggested that without adopting the traditional systems, sustainable development efforts could compromise existing traditional approaches leading to a breakdown of indigenous systems (H. B. Gurung, 2008; R. Gurung, 2018; Lama, 2016). From SST perspective, this also means to emphasise the existence of traditional governance and resource management through community leadership. In case of Jhong, every household has the chance to become Mukhiya once a year turn wise and, in a way, democratic process. However, only the eldest male in the household of ethnic Gurung family is eligible for this position. In case there is no male, the eldest female can become *Mukhiya*.

### **D. Livelihood Issues and Cultural Values**

One of the most advocated part of ACAP has been inclusion of cultural values and at the same time solving the livelihood issues. For local and isolated communities like in Mustang, they had a greater number of development priorities than the conservation interests. One of the reasons for this is that because of lesser resources, especially firewood, local communities like Jhong, manage their forest resources through their traditional and

indigenous forest management systems. In many cases, forest means life and they already have good conservation practices (H. B. Gurung, 2008).

From the system perspective, this means that the concept of ecological relations and proper natural resource management is already integrated in the cultural values of the community. The community acts as social system. As such their priority is development like schools, trails construction, drinking water schemes and repair of monasteries. As such from SST perspective, it is important to set up the goals aiming at supporting their livelihoods needs through already existing values of conservation of natural resource. The same goes for wildlife conservation. An argument from local people is why they should protect wildlife which do not provide any other livelihood opportunities. However, it is also important to note here that local people do not kill wildlife due to religious and cultural values it holds. However, one interviewee reveals that when the wild animals attack their domestic cattle, then they reward people who kill that wild animal. This also shows that when the cultural values encroach their livelihood opportunities, then they are killed.

ACAP has recognised the traditional roles of forest management in the conservation process but is unsuccessful in retaining the larger population through development efforts. Also, it is important to integrate the sustainable development efforts by integrating internal community organisations governance and development efforts. The traditional Mukhiya system is considered as semi-feudal system that marginalises *dalits*, women and other immigrants because of their origin. This shows that the Mukhiya system is effective for homogenous society but has to be supplemented when this society becomes more diverse expand so that it can incorporate marginalised groups. One enlargement of the traditional system is represented through Mother's group. (*Write something with mothers' group*). New organisations have to be aligned and harmonised with the traditional system and its decision-making process.

## **E. System Analysis of Jhong with respect to broader region ACA**

Looking from an SST perspective, it is important to note that various sustainable ideologies and practices are already embedded in such resource scarce local communities as cultural and religious values. Sustainability here is present in social space and as a way of living which is transferred as values from one generation to another. In community, various social and cultural institutions and the way they organise always bear the values in terms of norms that not only govern the access and discourage unsustainable behaviour but also provide the process of community organisation in order to address various unsustainable scenarios. For example H. B. Gurung (2008) pointed out that conservation agencies need not put in much effort to conserve such precious, endangered and elusive species like snow leopards. Looking from SST perspective, integrating cultural values in sustainability (here in case of ACAP, conservation) was not only accepted by the local communities, but is also an affordable and practical strategy requiring little intervention from external agencies (here conservation partners). If we look at intentional communities, i.e. EV, we also see the attempts to build such sustainable values that can transcend across space and time as in case of traditional communities in resource scarce village like Jhong. This can also be analysed from the interview of local residents of Jhong.

It is often referred that the development of local institutions like CAMC was fused from existing traditional systems where they sensitised and trained in conservation and sustainable management of resources by the ACAP (H. B. Gurung, 2008). However, like H. B. Gurung (2008), during the research, the empirical evidences (interviews) reveal that CAMC are operated according to the customary process and rules despite existence of CAMR (Conservation Area Management Regulations) by communities. CAMC organisation structure must be improved.

There is the evolution of the committees for the grassroot institutions with names such as *Ban samiti*, *Samrachan Tatha Bikas Samiti*, which was later named *Samrachan Chetra Byabasthapan Samiti*, despite various changes the committee was embedded with their traditional forest management systems. From the SST perspective, this can be seen as acknowledging the traditional values on participation and decision-making process. Further system wise CAMC can be seen as communication space where different development and conservation topics are discussed.

Despite several informal and formal institutions, it has become difficult to find people to voluntarily serve in the local institutions throughout the year and in many cases the same individuals are represented in various local committees which has created a burden to them particularly in Manang and Mustang districts of the ACA (H. B. Gurung, 2008). This was also illustrated in interviews where some people have too many burdens while some are unknown character.

An experience in *Janasahabhagita*, participation, is the participation in terms of labour. Many of the decision making process involves 15 or 20 people, committee members discussing with ACAP staff (H. B. Gurung, 2008). It is often argued from the conceptual level that ACAP focuses on facilitation or catalytic or *lamhi* role (Bajracharya et al., 2007; H. B. Gurung, 2008). Further, for intertwining traditional system of communication with the modern governance system, it is important to look for the communication, information sharing and capacity building, they allow participation from local communities as well as external agencies which encourage dynamic societies to ignite sustainable actions among different stakeholders (H. B. Gurung, 2008). Many researches acknowledge that indigenous communities are often confined to specific locations providing little opportunity to learn new life skills. From system perspective, this is the tendency to be autopoietic in nature. The only way to get in or intervene a social system is to find the nodes where the communal values and external agencies' goals overlap.

The existence of regulations and rules pointed out the presence of government legal power while people are only exercising their customary powers and have no legal authority to enforce their decisions they make. The customary power has no authority if legal power does not forbid certain actions. For example, one interviewee pointed out that especially in case of disobedient community members acting against the will of community, construction of bigger hotels.

The interviews with the people revealed the presence of different parallel management regimes in case of Jhong. In certain cases, it was confusing for local people if there is difference between ACAP (a project run by NGO NTNC) and government agencies like

DDC. The committees and CBOs existing in the village often act as the informants providing space for communication. But its decision-making authority in terms of use and management of resources is quite limited. It is a coincidence for forest management that the traditional values and regulations are overlapping with the legal ones. But for other developmental aspects, it is not. A clear example of is the distribution of solar water heater that are distributed by both ACAP and AEPC at different time period or the construction of two different tourist foot trails by two agencies. the dichotomy and confusion is also mentioned by H. B. Gurung (2008).

This dichotomy mainly manifest itself in responsibility, authority and resource sharing. The government has the ultimate power and legal authority (H. B. Gurung, 2008). The community has more responsibility and less authority while the government has more authority and less responsibility in this constellation.

H. B. Gurung (2008) also mentioned that CAMR contradicts with the already practised social systems and the Local Self Governance Act 2055 (1999) like DDCs and VDCs. In reality the CAMC seems cosmetic particularly in Mustang and Manang where the Mukhiyas' decisions have influenced the local resource management system. This sentiment is also mentioned by interviewees during the course of this research.

## **4. Further Steps**

### **4.1. Triangulation**

The information compared with the reality, applying insights drawn from that comparison, and ideas for the desired improvements. The PhD is exploring various types of triangulation strategies. Triangulation is the combination of various theoretical perspectives, methodological approaches, data sources, and investigators and data analysis methods (Thurmond, 2001). The intent of using triangulation is to decrease, negate or counterbalance flaws in the study and increase the ability and authenticity of the findings.

### **4.2. Understanding Feasible methodological strategies**

After triangulation, PhD will explore the possible interventions and their feasibility. Comparing the models on the basis of the 4 perspectives with the 'reality' may start to reveal areas of contradiction and synergy that suggest possible strategies (Williams, 2005). The identification of potential stakeholders and understanding their role within the social structures are the key aspects for the inclusive decision making process (Singh & Keitsch, 2014). While comparison of the models creates a large range of possibilities (Williams, 2005), the analyses the stakeholders, their role and creating the context for their inclusion test the feasibility of the activities (Singh & Keitsch, 2014).

### **4.3. Recommendations**

This is where the PhD comes full cycle with recommendations for expansive learning and future action. The PhD shall develop recommendations based on insights that result from broad theoretical and empirical studies for the overall EnPe project, as well as for stakeholders in academia and practice. The research's various dimensions provide a deeper understanding of situations that occur between the different levels of sustainable/ eco-village/region analyses

and design. The recommendations also aim at setting new point of departure for further research and development. This concerns activities of policy-makers, local entrepreneurs and academia, who hopefully and in concert will get new inspiration for local and regional and national sustainable development.

## **5. Conclusion**

The field visit has been successful in the context that as a researcher, I have been able to introduce myself. It was generally getting acquainted with the scenario, understanding their socio-cultural values and trying to observe and listen some sustainability issues. The field visit unveil some more information about Jhong with respect to ACA and also helps to illustrates the prevailing overlapping governance structure that needs to be addressed for sustainable interventions

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## **Appendix 12:- Reflection of the Workshop in Kagbeni**

The two-day workshop on 15-16 October 2017 - *Doing business in Mustang at Yak Donalds, Mustang* - focused on the existing livelihood and business potentials of *Barhagaun Muktikshetra* rural municipality and future development strategies.

On the first day, the opening sessions were designed to share background information about the participants. The opening sessions were conducted with welcome speech by Prof Dr Martina M Keitsch (Co ordinator of ENPE program and Prof at NTNU). Dr. Niranjan Sharma (Asst. Dean of IOE) focusses the role of IOE as an academic partner in various development projects. Prof. Dr Shailendra Kumar Mishra (Director of CARD, IOE) presented the role of CARD and possibility of contribution for future development when the students shall come for their research work. Introductory session from participants followed by The participants include experts as well as local people. The experts were from various organization that are working this region and on entrepreneurship. The locals are mainly from different villages who are involved in different business: Apple farm, homestay, knitting local garments, carpet, hotels, organic farming, yak husbandry, and yak cheese production.

After introductory sessions, the experts addressed various possible potentials within this region based on the experience and knowledge of experts. The following experts presented on the potentials and possibilities for future development of this region.

Kushal Gurung (CEO of Windpower Nepal and Expert member of Environment Conservation Council, Government of Nepal) presented on how to think outside the box to develop their potential and business into entrepreneurship focusing mainly on minimum viable product and being innovative.

Tulsi Prasad Dhakal (Conservation officer, Unit Conservation Office, Jomsom and lomanthang, NTNC-ACAP) presented on community business that NTNC has carried out in other parts of Nepal. Dhakal presented that locals are experts on local resources and sustained economic activities and that attributes have to be capitalized for doing community business like community homestay or community based organic farming.

Purna Bahadur Kunwar (Field Coordinator, *Hariyo- Ban* Program, WWF-Nepal) presented on how WWF Nepal can cooperate with ACAP on Ecotourism in this region for future development. He also focused on community development and nature conservation through Eco- tourism.



Prof Martina and I presented the potentials of eco-cultural based tourism development in the regions with illustrations from Norway (Røros and Inherred) and Nepal (Nepal). The presentation also focusses on the need to include overall region-based development strategies.

Ner Bahadur Thakali (Micro Finance Officer from NMB Finance, Jomsom) presented on various micro finance schemes available and procedures to get those facilities.

In the third part of the day, the locals presented the background information on their livelihood strategies and businesses and issues and challenges related with those activities.

Nyima Gurung from Jhong presented his experience in producing compressed stabilized soil block as a construction material. He presented advantages of these blocks and asked to representatives from IOE to have them tested and further research and development from IOE.

Gam Bahadur Gurung presented his idea and progress in organic farming. He emphasized in the need to promote local organic agricultural products within the region.

Chewang Gurung from Khinga presented on the loss of Mustang's identity because of migration of people. His idea was to have a good school so that students do not have to move down to Pokhara and Kathmandu for good education.

The ladies from Tiri presented their idea on developing homestay in Tiri. But their challenge is to market Tiri as a homestay destination. Bijaya Thakali from Thini also forwarded the idea of home stay but addresses the challenge in developing the infrastructure need for that business and marketing it.

Karsang from Putak addressed on the knitting and weaving skills of ladies of Putak and inquires on possibility of getting equipment, and materials for developing that skill as community business. A lady from Kagbeni also queried on possibility of carpet weaving as a business.

Buta Gurung from Jharkot queried about the potential of developing cream, dye, *chuk* (a sour element put in pickles) from sea buck thorn berries in addition to juice.

Laxmi Gurung from Kagbeni presented the potentials of various local agricultural and handicraft products and her plan to develop the market center for such local products. The products included apricot jam, various wild leaf tea samples, medicinal herbs and handicrafts.

On the second day, participants participated in workshop conducted by Ravi Bhandari (Program Manager, NITEC, Pokhara University) and David Sharma (Project/Business Development Manager, NITC-Pokhara University) based on business canvas. The session begins with the presentation by Ravi on business canvas followed by David's illustration on

how steps to use that canvas. The activity was for professional growths of the local entrepreneurs. The idea was to scale up their business activities into enterprises through identification of customers, adding values to their products, distribution channels, revenue generations, key activities and key partners. After discussion, the participants presented the result which are supplemented by remarks from experts.

The overall workshop activities represented as clear difference in approach to business activities from the experts and local participants. While the experts were mainly focusing on potentials of scaling up those activities into bigger scale, locals appear less visionary on the potentials of those activities. In a way, this program has able to create a bridge between experts from organization and locals. The concerning organization got background information on what they can do while the locals also got information on what they could expect from those organizations and the procedures to ask for those facilities.

Further, the locals lack skills to develop those livelihood activities into business or enterprises. The locals seem to be following the trends of business, focusing on tourism often lacking innovation and knowledge. The locals also seem to be lacking knowledge or enthusiasm on detail understanding of the profession that they choose. The workshop on using Business canvas may have helped them to be more innovative and visionary on their existing business activities.