

Chapter I

INTRODUCTION

1.1 Tourism in Nepalese Economy

Natural endowment places tourism as an immensely potential sector for the economic development of our country Nepal. With natural and cultural diversity, tourism is one of the prominent potential growth sector of Nepal. Currently, the contribution of tourism sector in GDP is 2.9 percent only which is less than potential contribution (Ministry of Finance (MOF), 2015). It is also true to note that tourism sector is one which is mostly to totally operated by private sector in their own. Government's role is very much nominal comprising of policy formulation, budgeting and regulation in top down basis.

Diverse flora fauna and multiple diversity have made Nepal the country of exceptional beauty. National geographic traveler magazine listed Nepal as the sixth world's best destinations of 2016. Despite her immense beauty and potentialities, its protection and promotion remain lax. The April 25 earthquake and its subsequent aftershocks put international tourists a harsh impression. For the systematic address of the issue policy and plan at the government level is vitally important. Nepalese people are known from long time to apply the principle of "athitidevobhawa" which means guest are treated as gods in its literal meaning. It is evident that tourism is the paramount way of keeping our country alive with concrete efforts to attract internal as well as international tourists (THT, Feb 1, 2016).

In order to mitigate trade deficit from internal measures, tourism is only area which can support without big investment. However, the size and quality aspects of tourists visiting Nepal is still in sub-optimum level. Apart from promoting internal tourism and countrywide diversification in the form of economic diplomacy, tourists attraction from two neighboring giants India and China is another potential area to target in coming days.

1.2 Disaster Vulnerability in Nepal

Disaster, as defined by the United Nation's office for Disaster Risk Reduction, is a serious disruption of the functioning of the community or a society involving widespread human, material, economic or environmental losses and impacts which exceeds the ability of the affected community or society to cope using its own resources (www.unisdr.org).

Nepal is one of the most disaster prone countries in the world. The high level of vulnerability is due to its steep topography, active tectonics, fragile geology and climatic uncertainties. Nepal faces an acute problem of recurrent natural disasters such as flood, landslides, epidemic, cold wave, avalanche and forest fire. Most prominent natural disaster is flood including Glacial Lake Outburst (GLOs), drought, landslides, wildfires and earthquakes. Nepal ranks 11th in the world in terms of earthquake vulnerability and 30th in terms of flood risks as documented by UNDP. More than 400000 hectares of land have been damaged by rivers in Nepal (Kafle, 2017). Nepal is susceptible to various kinds of disasters like earthquake, flood, landslide, fire (including forest fire), avalanche, epidemic, extreme rainfall, windstorm and Glacial Lake Outburst Flood (GLOF). In a year, average of 500 people are killed and many people get injured due to such disasters.

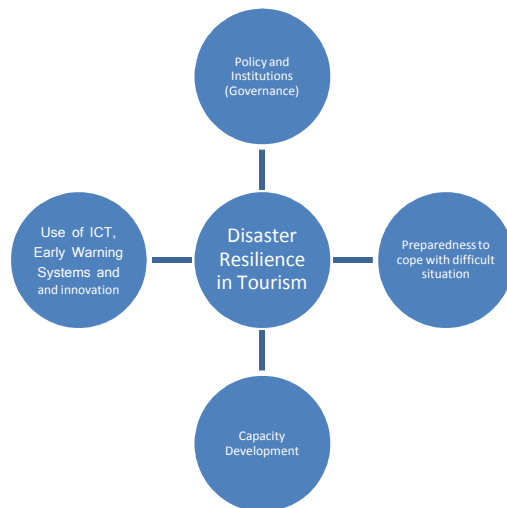
Earthquakes, landslides, floods, fire and thunderbolts are the major causes of disaster events (Rohwerder, 2016). Since Nepal lies on the lines of disaster vulnerability due to its location on the Alpide belt (Alpine Himalayan), there should be appropriate means of intervention (Ghimire, 2015). Major ecological or geographical location specific hazards having adverse effect in the tourism are earthquake, floods, avalanche, landslides and problems related with bad weather and pollution. In this scenario, it is high demanding that resilience capacity has to be developed and applied.

According to International Emergency Disasters Database (EMDAT), the earthquake of April 2015 and its aftershocks caused a total of 8790 human casualties, over 22300 injuries and property damages and loss worth USD 7 billion; it is the biggest natural disaster of the world in 2015.

1.3 Disaster Resilience and Tourism

When we come to the interrelation between disaster and tourism, the situation become dismal. It is yet to mainstream policy and program related to tourism and disaster management. The vulnerability, resilience and adaptive cycle of tourism landscapes are core issues for he sustainable development of community based tourism. Resilience generally means the ability to recover from some shock or disturbance. (Simple English Wikipedia). Dictionary meaning of resilience is the capacity to recover quickly from difficulties; toughness. Tourism resilience or resilience applied to tourism is the ability of social, economic or ecological systems to recover from tourism induced stress (Tyrell and Johnson, 2008). A resilient tourism destination has the capacity to build and achieve resilience, which is necessary to recover/increase inbound tourism flows, to ensure flexibility, transition, innovation and to build a trajectory from a renewed attractiveness or image. Generally, the major interrelated components of tourism resilience can be presented diagrammatically as shown in the following diagram:

Figure 1: Components of Disaster Resilience in Tourism



Source: Miniature form of conceptual framework used in this study

Unless we develop capacity of a system to mitigate or absorb disturbances, tourism sector will be under some kind of negative consequences every year. Such mitigating measures preparedness activities should be tied to locally available materials and skills. There is urgent need of early warning systems linked with tourism information center automatically and in

online/real time basis. Besides, developing adaptive cycles of tourism landscapes and use of integrated framework to develop resilience is the key task to accomplish.

Smooth operation of road and air networks throughout the year is a fundamental need. supply Uninterrupted supply of food items, water supply and internet service are basic essentials for running tourism business. Besides, resilience should cover from uninterrupted supply of basic things to risk minimization and rescue from the difficult situation in case of disaster event.

1.4. Research Problem

Tourism sector of Nepal is facing a number of challenges and setbacks. It is rare to see any policy and programs in connection between tourism development and disaster management. Disaster management has been discussed to be crucial in any sectors of development. It is important to mention that theory of disaster management is transformed from reactive to proactive giving importance to capacity building in principle. In post earthquake scenario of Nepal, policy of disaster management and development has been discussed a lot with few remarkable changes in policy papers. But when one compares what is said and what is done in practice the situation seems very weak. These are few gaps identified for the purpose of this study.

To look into the issue of resilience, an attempt is made to study the situation of a tourism destination which has come through multiple disaster events recently. "How far the tourism units of Bhotekoshi riverside, Sindhupalchok are resilient to disaster events?" And "who are responsible for which disaster management tasks?" has been the major research questions of this study.

1.5 Objective of the Study

The general aim of this study is to explore present condition of resilience capacity building in connection between tourism performance and disaster risk management. Specifically, the objectives can be listed as follows:

1. To examine situation of disaster resilience of tourism in Bhotekoshi riverside.
2. To explore the role of different stakeholders in disaster resilience building in Bhotekoshi riverside.

1.6 Rationale of the Study

Both tourism and disaster are inevitable part of our country. There is possibility of reoccurrence of earthquake and other devastating disasters in each and every year. Each actor from state to community level has to update and upgrade their understanding level as well as capability to deal with the hazard and vulnerability. In this connection, the outcome of the study is supposed to contribute to the area of disaster resilience to the tourism.

1.7 Delimitation of the Study

Topic of tourism and its resilience is widespread and hence it is not easy to narrow down to a particular place. Besides, this study is only concerned with exogenous shocks created by natural and environmental disasters. This study is based on the purposely taken sample unit of tourism industry study area. Likewise the sample size of key informant interview is taken to be 32 based on which logical inferences will be drawn.

1.8 General Outline of the Thesis

The thesis comprises of six chapters. First chapter deals with introduction of the issue under study followed by literature review in the second chapter. Chapter three will deal with the methodology applied in the research. Chapter four descriptive outlook of tourism destination and disaster events covered in the study. Chapter five deals with tourism and resilience building at local level followed by findings and recommendations in the chapter six.

Chapter II

REVIEW OF RELATED LITERATURE

Before entering into the actual study, this chapter explores different aspects of related literature. For coherence and simplicity review part is divided into three headings. In doing so different research studies pertaining to the issue of tourism development and disaster management in connection with the resilience development are covered in deliberate manner.

2.1. Policy Guidelines on Tourism Development and Disaster Management

Constitution of Nepal

Constitution of Nepal includes tourism related policy in directional policies. Provision signifies recognition, protection, promotion and dissemination of historical, cultural, religious, archeological, natural heritages and sites and developing eco-friendly tourism as a basis of national economy. In developing tourism culture, necessary environment and policy formulation is equally important followed by giving priority to local people in sharing the benefits of tourism. In the policy related to protection, promotion and utilization of natural resources, it is mentioned under article 51 of the constitution, it is clearly mentioned that pre-information to reduce the vulnerability due to natural disaster, preparedness, response, relief and rehabilitation will be covered.

Sustainable Development Goals

Among the 17 goals stipulated under Sustainable Development Goals (SDG's), the issue of tourism falls under SDG 8 as one of its targets. There are ten targets set under SDG 8 out of which target 8.9 is "by 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products." In case of Nepal, target of tourist arrivals seems to be 1.2 million by 2017, 2.3 million by 2025 and 3 million by 2030 (NPC, 2015. page 81).

Tourism Policy, 2065

Overall guidelines for tourism sector is provided by this national policy document. Adventure tourism is one of the 13 types of tourism industries covered in the policy. It comprises of

cannoning, rafting, bungee jumping, paragliding, sky diving, heli ski as covered in the document. These activities are based on either of water, land and air. Policy asserts for the utilization of viable and safe rivers, mountains and peaks in adventure tourism activities. In doing so insurance and physical and financial security has to be borne by tourism business unit themselves. After reviewing the contents one can come to the conclusion that this policy is near to totally blind in practice which demands serious consideration in policy implementation process.

Tourism Vision, 2020

With its theme of "Tourism for peace, people and prosperity" this is a vision paper and is prepared by Ministry of Culture, Tourism and Civil Aviation in consultation with its tourism industry partners. This vision document seeks to build on the post planning initiatives and target to increase annual international tourists arrivals to 2 million by 2020 and increase employment in tourism sector by 1 million (MOCTC, 2009).

National Tourism Strategic Plan (2016-2025)

It is the policy document devised after devastating earthquake 2015. Among other provisions, this strategy aimed on shaping vision of 10 years and action plan of 5 years period targeting to revive the tourism sector after the devastating earthquake. It is explicitly regarded as revival strategy and plan of action in post disaster situation. It focus on reconstruction of products and markets and highlight in reestablishing the images of tourism destinations. Moreover, it introduced the ideas of tourism notice board, Geographical Positioning System (GPS) and road network among others (MOCTC, 2016).

Fourteenth Plan (2016-2018) also covers the topic of Tourism and Disaster Management separately but there is no discussion in line with the disaster resilience in tourism sector. This is due to the treatment of the topic of disaster management as the cross disciplinary topic.

Post Disaster Need Assessment (2015) and Post Disaster Recovery Framework

Few policy level documents including Post Disaster Need Assessment (PDNA) Report, 2015, People Centered Development, a report by United Nation's Development Program (UNDP) with theme "Empowered Lives, Resilient Nations" published in 2011 are also reviewed to reach a policy level understanding of disaster management in recent years. For example, National Disaster Recovery Framework (NDRF) is the policy document produced for the effective coordination and implementation of disaster preparedness and response activities by developing a national disaster response plan with clear alignment of roles and responsibilities of the government and non-government agencies involved in disaster risk management of Nepal. The main purpose of this framework is to develop a clear, concise and comprehensive national disaster response framework which can guide a more effective and coordinated national response plan with actions to be taken before, during and after the large scale disaster event (MOH, 2015).

Sendai Framework (2015-2030)

Internationally few documents of disaster management as a common interests are available. Before Sendai conference in 2015, there was an exercise to prepare post Hyogo framework. In framing post Hyogo Action Plan, Nepal devised three areas of concern namely, developing disaster resilient community, integration of sustainable development, climate change and disaster risk reduction related policies and programs and developing risk governance and accountability.

The Sendai Framework for disaster risk reduction (2015-2030) comprises of four priority areas to cover by each of the member countries of UN. They are: understanding disaster risk, strengthening disaster risk governance to manage disaster risk, investing in disaster risk reduction for resilience and enhancing disaster preparedness for effective response and to build back better in recovery, rehabilitation and reconstruction (UN, 2015).

Apart from the policy documents given above, there are also other policy and strategy and program related documents guiding tourism development and disaster management in Nepal. National Reconstruction Authority has already prepared many policies, standards and guidelines to give direction to the post earthquake reconstruction process (www.nra.gov.np).

There are few programs directly related to tourism development. One of them is Tourism for Rural Poverty Alleviation Program (TRAPAP). One of the prominent activity under this program is Tamang Heritage Trail in Rasuwa, success of which can be replicated in similar areas (Kuwar and Pandey, 2012).

In this way, policy guidelines for tourism development and disaster management are prepared and announced both in national and international level but guiding policy for interrelation between tourism and disaster are not been prepared yet.

2.2. Conceptual Clarity about Resilience

Resilience is the capacity to withstand and adapt successfully in the state of threats and disasters. While resilience is inherent to some extent, people can improve their capacity of resilience by improving their capabilities (Saxena, 2014). This is also the ability of individuals, communities, organizations and states to adapt to and recover from hazards, shocks and stresses without compromising long term prospects for development. In building resilience, three steps are involved in integrating resilience into programming namely, shared risk analysis, ways to make society resilient and apply resilience building elements in the program.

Originating from the Latin word *resiliens*, the idea of resilience is used in many different ways. For example: in natural ecosystems, resilience is the ability of an ecosystem to absorb disturbances and change, while maintaining the same structural functions and providing the same basic services (Dixit et al, 2016).

Organization of Economic Cooperation and Development (OECD) prepared a guidelines for resilience system analysis as practioners tool which is believed to help for multi-stakeholder resilience workshop, design a roadmap to boost the resilience of communities and societies and integrate the result of analysis into development and humanitarian programming. Resilience program actions proposed by OECD (2014) include three types of capacity namely absorptive capacity, adaptive capacity and transformative capacity in three layers ranging from individual, household, community, regional and national. Principle of resilience covers

not only preparedness, responsiveness, connectivity, learning and innovation but also diversity and redundancy, connectivity, self organization, inclusion and social cohesion as important components (OECD, 2014).

World Economic Forum (2015) defined resilience as a social and political issue as much as an economic and development one (WEF, 2015).

Resilience is the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner including through the preservation and restoration of its essential basic structures and functions. It is economically important to be resilient. Those places which are mostly exposed to disaster due to its reliance on interrelated industries and location in many hazard prone areas. The hotel resilient initiative is working in the issues (UNDRR, 2009) is one excellent example.

In simple terms, disaster resilience is the capacity to withstand and adapt successfully in the state of threats and disasters. Resilience capacity is necessary for inbound tourist flow after disaster event. According to Tyrell and Johnson (2008), tourism resilience or resilience applied to tourism is the ability of social, economic or ecological systems to recover from tourism related stress.

Disaster resilience is the ability of individuals, communities, organizations and states to adapt to and recover from hazards, shocks, stresses without compromising long term prospects for development (Combaz, 2014).

Luthe and Wyss (2014) explains the resilience of tourism system as interrelated social-economic ecological systems (SEES) which further describes the capacity of the system to deal with stresses by maintaining the stability of tourism related economy while ensuring the flexibility and identity necessary for innovation and further development.

Hyogo Framework of Action (2005-2015) defined resilience as the capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. In the other hand DFID's Framework depicts the 5 core elements of disaster as context, disturbance, capacity to response and reaction (Combaz, 2014).

Tourism resilience or resilience applied to tourism is the ability of social, economic or ecological systems to recover from tourism induced stress (Tyrell and Johnsen, 2008). Calgaro, Lloyd and Dominey-Howes, (2014) mentioned that the vulnerability, resilience and adaptive cycle of tourism landscapes are core issues for the sustainable development of community based tourism.

Sustainability, disaster risk reduction and resilience are somewhat related terms. Broad development and application of policies, strategies and practices to minimize vulnerabilities and disaster risk throughout society. For this critical task of fulfilling responsibility rests in both development and relief agencies alike. There are 5 thematic areas of resilience and disaster risk reduction namely, governance, risk assessment, knowledge and education, risk management and vulnerability reduction and disaster preparedness and response. These components seems to be similar to the Hyugo Framework of action. Each of the components are subdivided into components of resilience, characteristics of disaster resilience community and characteristics of enabling environment (Twigg 2009).

Fabry and Zeghni, (2016) focused in developing the concept of resilient-based governance of a tourism destination. Similarly, Fabry and Zeghni (2014) discuss about the four kinds of resilience namely engineering, ecological, social and evolutionary. In essence, their paper discuss the link between resilience and tourism and basically based on the theoretical analysis. The result of the paper is to develop the concept of resilience based destination and to introduce an accurate concept of resilience based governance of tourist destination.

Cote and Nightingale (2012) tries to explore the relation between social and ecological aspects and raise the concerns like "Why to protect environment and livelihood?". From the ethical and moral angle the research work helps in creating a window of visibility on the process of change. In essence, resilience thinking brings social and ecological science together.

Acharya and et al. (2016) applied Geographical Positioning System (GPS) and Remote Sensing (RS) for the immediate determination and understanding of the Jure landslide as a disaster event in northern part of Kathmandu valley. It utilized the available and updated data about the event and its possible estimation of potential treat such as estimation of area, volume, affected households, service centers, parcels etc after the catastrophic event.

With vigorous interview and observations Ahmad and et al (2015) conducted a study Malaysia in which findings suggest that the sustainability of tourism development in a rural areas helped to ensure resilience community. In the context of this study, community resilience may be referred as the ability of the community to enhance the sustainable business.

Kunwar and Limbu (2016) conducted the descriptive type of study which presents the scenario of post disaster situation in Turkey and Nepal. In case of Nepal Sunkoshi blockade, earthquake, Everest avalanche blizzards and avalanche in 2015 Annarpurna circuit. Post disaster activities and lesson learnt are covered in the paper.

The term resilience is derived from Latin word "resalire" with meaning "to spring back" but having different explanations and definitions depending on the field of use and context. For example (Abel, 2001) defines it as the ability to persist through future disturbances. Similarly, (Bruneau, 2003) explain it as the ability of social units to mitigate hazards, contain the effects of disasters when they occur and carry out recovery activities in ways that minimize social disruption and mitigate the effects of future earthquakes.

Community resilience is the capability to anticipate risk, limit impact and bounce back rapidly through survival, adaptability, evolution and growth in the face of turbulent change (CARRI REPORT, 2013).

For the purpose of this study resilience is taken as the sum of two fold capability. First is the capability to resist to the disaster events and second is adaptation capability.

Susane (2013) presents an idea of developing a resilience framework for tourism destinations with a particular focus on climate disturbances or stress and their impacts to tourism activity subsystems. Building on the model of a "stability landscape", this research uses primary data from the Quenstown-Wanaka destination in New Zealand to evaluate the concept of resistance and to formulate surrogates that describe the factors that shape resilience. Challenges for future research including the proactive building of resilience are outlined. This research also represents a good example of an interdisciplinary approach that transcends existing epistemologies in tourism.

2.3. Tourism and Disaster : An Interrelation

Hundreds of monuments, buildings, structures, temples, private properties were damaged during earthquake of April 25, 2015 and its aftershocks. Those partially or totally damaged structures are posing risks to the surrounding people and settlements. However, special provision of resources and emergency policy to work on fast track is the most to build back the damaged structures (THT, July 17).

Tourism as a service industry demands quality of human resources. Qualified human resources with appropriate skill, language, behavior, attitude and hospitality is expected for the full swing of tourism related business. In case of Nepal, even if the number of trained human resources is in increasing pace as the data given by Nepal Mountaineering and Hotel Management Academy indicates number of trained professionals is 42101 since its inception which does not seem sufficient (Karoobar Daily, 2016 November 21).

Nepal attracts 0.1 percent of global international visitors and 5.1 percent of the total arrivals in the South Asia region. On the other hand, Nepal's tourism competitiveness rank is 112/140 in 2015. The state of infrastructure (air, ground etc), the quality of product (human resources, health hygiene and safety security) and tourism management also scores low (Sapkota, 2013).

In the aftermath of earthquake 2015, tourist arrival dropped by almost 50 percent and hotels are running in 30 percent capacity (Pyakurel, 2016). Even though the situation has improved across time, the tourism sector hit hard after earthquake in Nepal.

In the post earthquake scenario, all the 7 world heritage sites in Kathmandu valley are hit by earthquake. In Bhaktapur district only 49 out of 67 cultural sites are damaged. (Abhiyan Daily, July 20, 2016). Another issue raised in the reconstruction process is right based reconstruction. Human right based assessment should be taken into consideration at every step of the reconstruction process to make it effective and sustainable. For this victims should be consulted in every phase of reconstruction. Other measures may include the pro-victim policies and programs and use of local resource as far as possible.

In analyzing the relation between tourism and climate change, one another study had focused about Annapurna trekking route. Total of 70 respondents were selected using snowball

sampling from the pool of lodge owners, guides, trekkers and interview schedule was used to collect relevant information. It can be concluded from the study that climate change has mixed results in tourism development (Rayamajhi, 2012).

Relation between tourism performance and disaster resilience has not been explained in the literature available, thus demanding more studies on it.

2.4. Resilience Building in Tourism Sector

Building resilience can be defined as any activity that strengthen the capacity of societies to withstand and minimize the human and financial losses resulting from natural disasters (WEF, 2008).

A panel discussion carried out by Inter Parliamentary Union in Geneva raise few pertinent views like smart investment of scarce resources, advance planning to protect vulnerable populations from high frequency high impact disasters that is becoming norms. "Invest today for safe tomorrow campaign should move forward in holistic manner based on data about the sustainable development programs. Lessons from few events is that disaster risk reduction plans for individual events were inadequate to address multiple issues triggered by complex emergency. Therefore, it is vital to devise counter measures for every imaginable solution by prioritizing effective disaster risk reduction and securing the requisite investment including for capacity building in disaster prone developing countries. Other measures includes dissemination of relevant information such as satellite weather forecasters, trans-boundary cooperation, global climate change agenda, stop illegal construction, technology transfer, risk informed decision, public and informal education and risk governance in local level (WFO, 2013).

Phillipines (2011) conducted a research and prepared a report. The objective of the research is twofold. First is to enhance legal framework and institutional capacity for disaster risk reduction and management and second is to strengthen community capacity and knowledge on disaster risk reduction and management. Indepth data analysis based on events of Phillipines and Japan, national DRR management framework seek to initiate the paradigm shifts like shift from top down and centralized disaster management to bottom up and

participatory DRR, reactive to DRR to proactive to DRR and management. In cooperation with relevant ministries, the cabinet office published the guidelines for evacuation support of people requiring assistance during disaster in 2005. The guidelines implemented at municipal level and cover 4 things namely improving information communication, sharing of information regarding people requiring assistance during disaster, assistance at evacuation centers and collaboration among related organizations.

Gupta (2016) took 14 communities to look through quantitative data sources and also covers 3 communities to have closer examination of resilience policy making. He conducted the research as part of community disaster research program and covers the economic impacts of disasters beyond the loss of life and property combined with community priorities for economic wellbeing. Also, research and development were cited as major motivating factors for resilience and hazard mitigation policy development.

Sudmeier et al (2013) studied landslide risks in four different communities of central and eastern development region of Nepal using case study approach. It seems to use qualitative participatory approaches aimed in developing indicators of resilience. The paper reveals the finding that resilience is an outcome that can be improved over time with right set of interventions. The research seems to focus mainly on outcome indicator demanding more comprehensive process indicators. In essence, the root causes of risk and resilience must be included in its definition and only then can resilience be a useful attribute and a valuable decision making tool for sustainable development and risk reduction interventions.

A scoping study was conducted in Phillipines, Indonesia, Maldives and Thailand jointly by UNISDR, PATA and GIDRM in 2015. It is based on 17 semi-structured interviews targeting senior people within their organizations. Interviewees from independent and chain hotels (10), tourism ministries (3), tourism industries accessories (1), tour operators (2) and insurance (1) are consulted through phone or skype. The scoping study confirmed that internationally recognized standards to improve disaster risk management in hotels that are located in hazard prone destinations should be developed to encourage best practice disaster risk management approaches. Development of acceptable infrastructure followed by certification can be the solution for tourism hotel's sustainable risk reduction (UNISDR et al. 2015).

Luthe et al (2014) describes that tourism needs new strategies to cope with complex and interrelated change impacts. For this resilience has much explanatory power for tourism coping with change on which network governance provides a promising angle to tourism resilience. Adaptation and transformation process to changing environmental, social and economic conditions require initiatives by various tourism actors with different functions in the tourism supply chain and on different scales of governance.

NSET/NBI (2016) proposed a emergency preparedness and response planning for businesses containing 6 steps: establishing a commitment towards preparedness, conducting a vulnerability assessment, reducing vulnerability, developing a emergency response and business continuity plans and implementing them and followed by helping the community in preparing them to respond to the emergency. This document seems to be technical but simple with templates of risk assessment and summary evaluation sheet to locate the position of business unit in post disaster scenario.

Shrestha A.B. (2008) prepared a manual for ICIMOD which provides resource materials for understanding the problem and managing risk. It also supposed to be useful to professional. Objective is to build capacity of district level disaster mitigation and relief works and related professionals. Basically the manual is focused on flash flood risk management.

To improve the responses and to reduce the impacts of disturbances in future, strengthening the partnerships between public and private sectors so that the move is useful for enabling tourism (WEF, 2015).

Tsao Chiem Yu and Ni Chin Cheng (2015) discuss about the resilience framework to be applied at community level in relation with vulnerability and adaptive cycle. Study is based on a framework with four stages namely growth, conservation, release and reorganization as a more logical way of thinking. Study case study is based on typhoon Morakot of Taiwan in 2009 and methodology used was qualitative research with environmental investigation, observations and in depth interviews. Use of integrated framework and adaptive model is prescribed based on the study for sustainable tourism.

Within hazard's research, resilience is defined as the ability to cope with a disaster with minimum impact and damage showing that resilience is considered as an outcome and

incorporates the capacity to reduce or avoid cases, withstand the hazard and recover with minimum social disruptions. To better understand how communities organized for resilience, emergency management of city governments should be analyzed. Four dimensions are considered while finding complementary relationship namely population, economics, built environment and social development. Natural hazard exposure is treated as an exogenous factor that influences policy and investment decision making in a community (NIST, 2015).

Resilience building is a continuous process, such efforts must be directed towards the human build systems that people depend on, such as drinking water, electricity, telecommunications and transportation. It must be noted that building resilience in human build systems should not be at the cost of natural ecosystems particularly water and forest. Building resilience requires simultaneous focus on improving knowledge about exposure, improving the quality of systems, building the capacity of individuals and households, and implementing appropriate policy measures. The lack of one of these attributes can escalate loss and damages when hazard hits (Dixit A. and et al, 2016).

Since people are the first responders to any disaster event, so improving their capacity is very important. There are many people related factors which contribute in building resilience capacity. Few of them are close relationship with family and friends, a positive view of oneself and confidence in one's strength and abilities, the abilities to manage strong feelings and impulses, seeing self as resilient rather than a victim, coping with stress in healthy ways and avoiding harmful coping strategies such as drug abuse, finding the meaning in one's life despite different or traumatic events, good problem solving and communication skills, seeking help and resources as well as helping others. Apart from these factors there are few traits essential in building the resilience like positive attitude, solidarity, joint responsibility, nondiscrimination and humanity. After all the eight letter mantra PATIENCE is also very helpful (Saxena, 2014). In the same book, two measures of controlling impacts of flood is also covered as : (1) Flood abatement measures which include forecasting and warning and watershed management and (2) Flood diversion measures which basically demands river engineering such as embankment, channel improvement in the flood area.

Design and implementation of resilience initiatives depend upon leadership recognizing the need to influence multiple factors, stakeholder groups to achieve expressed public support, and identification of windows of opportunities to push for implementation (Gupta et al., 2016).

Ahmad Fitri Amir and et al (2015) deals with sustainability planning in rural tourism of Malaysia. Methodology applied are site observation and extensive literature review. Finding suggest that a sustainable tourism development in rural area can contribute to an improved resiliency within local community.

There is also need of tourism management related trainings. Despite the fact that there are numerous training courses being run particularly focused on the tourism development in Nepal, there is still deficiency of community based tourism related training facilities in Nepal (Pandey, 2011).

Building resilience has increasingly growing space in policy and programs. In this connection, a topic guide by DFID suggested few tools and approaches that can be useful for building resilience. They are analyzing and measuring resilience, supplying the enabling environment and government action, supporting adapting capacities as well as to the context and financing resilience (Combaz, 2014).

Different frameworks are in use to address the resilience building task. One framework which uses the five dimensions of resilience identified in Hyogo Framework of Action consists of governance, risk assessment, knowledge and education, risk management and risk reduction and disaster preparedness and response (Twigg, 2009).

WEF (2008) prepared a framework for disaster resilience with private sector engagement. This framework propose new investments aimed at building resilience to natural disasters and it is required to contribute by all actors to help from future losses. According to the estimate provided by US National Institute of Building Sciences it is claimed that if we invest for resilience there will be huge financial savings (four dollars saving if we invest 1 dollar for prevention) which otherwise will be used for relief and reconstruction. This is because approximately 90% of disaster related expenditure goes towards relief and reconstruction. Developing the ability to bounce back from natural disasters is increasingly relevant for local industries among others. Companies should consider including natural disaster resiliency metrics in their corporate social responsibility. Four areas of opportunities which are

mutually reinforcing are disaster preparedness, sharing financial risk, socio-physical strengthening and monitoring hazard with communicating risk.

Seasonal calendar of Nepal shows that disaster events like landslides and flood happen in monsoon season. Since many of the disaster that occur in Nepal are seasonal, preparedness activities could take place in anticipation of seasonal disasters. Studies suggest that preparedness activities to cope with floods should be completed before the middle of June each year (prior to monsoon season), while awareness activities on fire prevention should start in February (Prior to dry season) (Rohwerder, 2016).

Number of tourists visiting means directly helping rebuilt the country since their contribution means a lot to boost up the tourism activities and economy transform the best technology and practices to the needy ones. There is something called social tourism that includes disaster tourism, volunteering tourism, cultural tourism, heritage tourism, responsible tourism, education tourism, medical and relief tourism which is the act of travelling to a disaster hit area as a matter of curiosity and generosity that ultimately gives them a satisfaction. The impact of natural disaster appear bigger than it is because people from outside don't know the geography, they confused over the extent of disaster and the area affected by disaster event (Ghimire, 2015).

People are first responders to any kind of disaster events, so improving their capacity is quite important. For this community capacity building and people's resilience is the important aspect and it include among other activities legal instruments about disaster prevention and preparedness. It is fundamental to note that the vulnerability of the population can be reduced through capacity building (building of coping capacity) and developing resilience by providing support to the community. Such capacity building is a long term continuing process in which all stakeholders participate. Moreover, capacity building is can be done in three level namely individual level (Training and Awareness), Institutional level (Cooperation, Developing Competences, Providing resources) and system level (Creating Enabling Environment) (Saxena, 2014).

United Nation's Organization declared the period 1990-1999 as an International Decade for Natural Disaster Reduction (INNDR) with objective to reduce loss of lives and property and restrict socioeconomic damage through concerned international action, especially in developing countries.

ESCAP organized a dialogue program in Kathmandu in 1-2 October, 2015. The program aimed in providing roadmap for recovery process in post earthquake scenario of Nepal. It remained meaningful in sharing of experiences and lesson learning from best practices throughout the world (ESCAP, 2015).

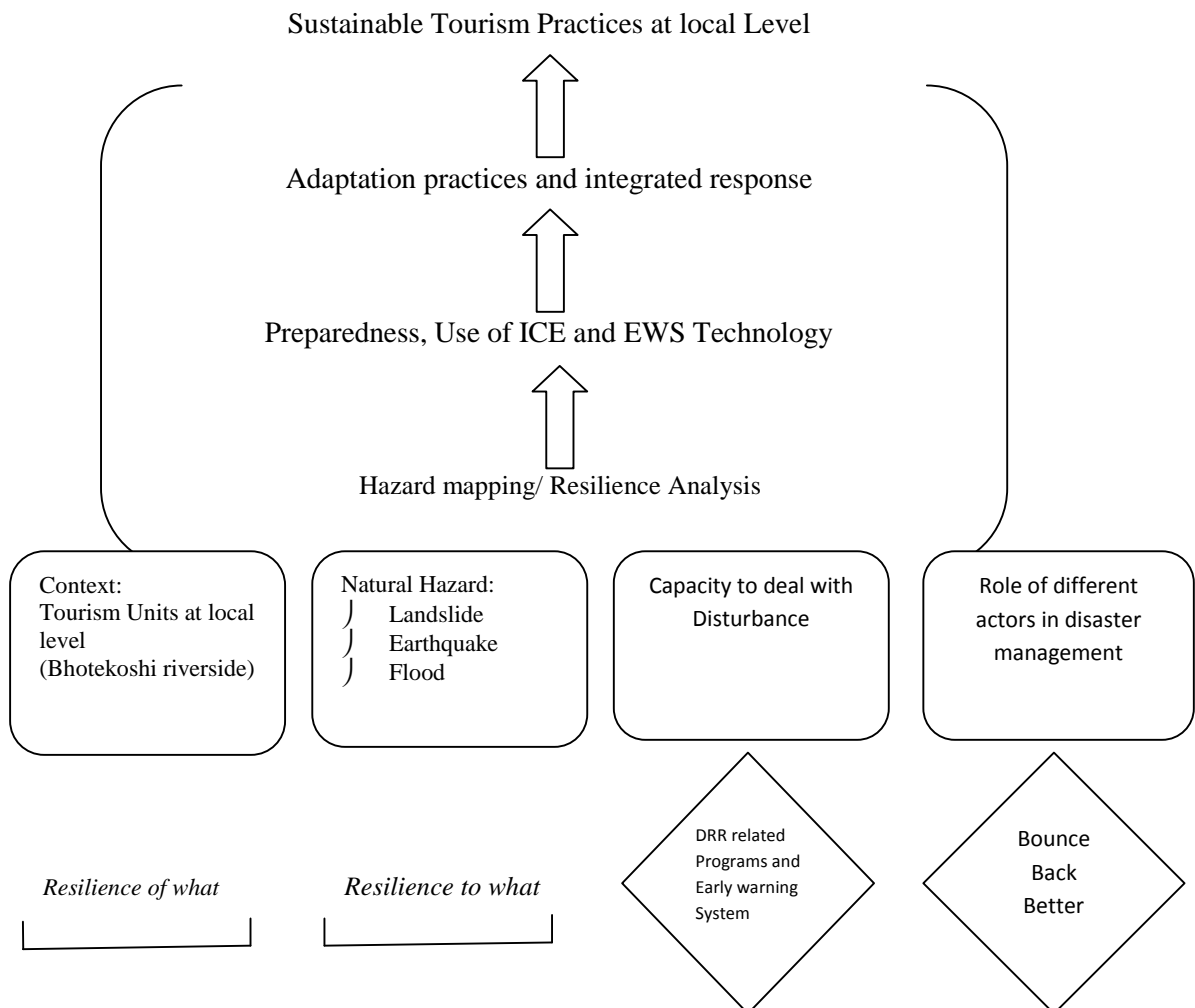
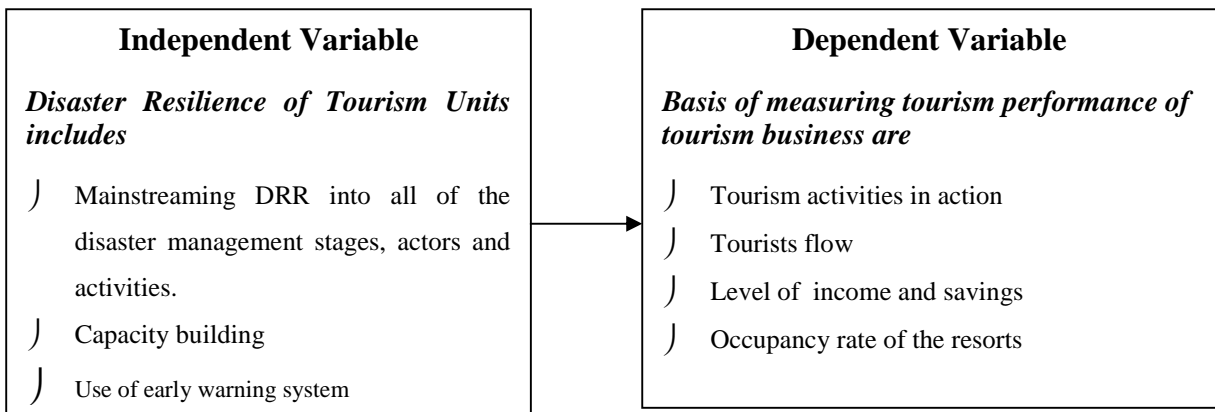
Research Gap Identified

Even though attempts are made in the academic circle to incorporate the resilience capacity so as to protect and let flourish to tourism sector, systematic study of particular area linking both disaster resilience and tourism business is lacking. This study acts as starting point in this area.

2.5 Conceptual Framework

For the purpose of this study, following conceptual framework is applied while developing study tools and analyzing the results. Framework is developed based on the variables under study and flow chart is derived from related literature reviewed and modified in Nepalese context. Framework is shown in figure 3 given below.

Figure 3: Conceptual Framework



Source: Derived and modified from Framework Used by DFID (2011), Mitchel (2013) and Chien-Yu Tsao et al. (2016)

2.6 Short Introduction of Variables

First explained here about the independent variables (factors on which disaster resilience depends on are covered in this set of variables) and then dependent variables as determinants of tourism business.

2.6.1 Independent Variables

Preparedness for disaster management

Preparedness means early to do works so that disaster events are either mitigated or at least the adverse impacts are lowered to manageable level. Such preparedness may be at individual level, family or business level, community level. Activities like selection of suitable land and use of proper construction materials, use of appropriate design while building structures is the best way to integrate disaster risk reduction with the daily business. Besides this, each business unit should prepare business continuity plan for the case of unfavorable situation and post disaster case. This may include stockpiling of regular food and nonfood items, first aid and other medical items.

Integrating DRR in policies and programs

Development and disaster go side by side. Therefore, the disaster management tasks right from the phase of designing the programs. Whatever be the activities and efforts made by public, private and other actors in the field of tourism, there should be minimum consideration to make the activities hazard free and at least with minimum scale. For this consultation with disaster management expert, auditing the design and structure with the eye of disaster risk reduction.

Awareness and Capacity Development

Knowing about the probable risks, hazards and disaster events is basic for managing the disaster itself. For this different kinds of educating, training, skill development, drilling, practical learning are essential depending on the types of disaster vulnerabilities. Apart from common understanding about the causes, consequences and mitigating actions, development

and deployment of skilled human resources is quite essential to manage disaster in the countries like Nepal.

Early Warning System

Knowing about the disaster events in advance so that one can escape from the human and property loss is increasingly been important. Detecting with the help of advance technological devices and making available the information to all those probable victims of the catastrophic event is nothing other than early warning system. Use of ICT, weather forecasting, geological and environmental hazard level if made known to those concern citizens and business units there would be every chance to remain save from the disaster events.

2.6.2 Dependent Variables

Number of tourism activities

Since the study area is potential area for adventure tourism and is customary to offer package of adventure activities from the tourism business unit i.e. tourism resort in case of this study. If the activities are offered in coordinated and continuous way, the tourism business gets its smooth operation. Apart from number of activities the right operation and innovation is regarded as the precondition for tourism business to be successful.

Tourists flow

Attracting tourists, serving them and influencing them for repeated visit is one of the important output level aspects of tourism performance. Immediate data regarding the number of visitors, period they spend in one visit and chance of their next arrival also has relevant to consider while calculating the number of tourists. The number of tourists can be calculated and presented on daily, weekly, monthly and annual basis. Related tourism data is average span (period) of stay.

Income and Saving per Month

Income from tourism activities when summated comes to be income of tourism units. Two aspects are notable. First, it depends on the per tourist expenditure per day and another is operation cost which is deducted to get the saving amount which in turn can be used for

extension of tourism activities. The saving amount is calculated and aggregated to find the contribution of tourism in Gross Domestic Product (GDP).

Occupation Rate of Resorts

Occupation rate of resorts simply means total reservation and their actual payments. It is calculated out of total rooms for daily accommodation. In aggregate, occupation rate can be calculated for the tourism area or national level for temporal comparison. The data is used as average value.

Time taken to come into operation after the disaster event

Tourism performance is seen to be good if original condition of the resort is restored within short period of time. This gives confidence to the visitors. It is worthy to note that the resumption capability depends on capacity to deal with the disturbance caused due to disaster events.

Level of disaster impacts in tourism activities

Disaster events can have varying level of impacts. Sometimes basic infrastructure facilities have service cut whereas in some cases the activity level or business level activities as well. Few activities get closed for long time thus making the tourism performance very weak and uncertain.

Chapter III

METHODOLOGY

3.1 Assumptions of the Study

1. Business units and other stakeholders have some kind of preparedness/mitigation measures.
2. Knowledge about the adventure tourism potential in the study area is not as per the need in the locals and stakeholders. Similarly, there is lack of know how about the causes, consequences and impact of disaster events.
3. Paradigm shift from reactive to proactive approach and response and rescue focus to preparedness, mitigation and risk reduction focus has not been realized in the area under study.
4. Resilience capacity depends on the integrated effort at community level both during preparation as well as response phase.

3.2 Methodology in Use

This research is based on the key informant interviews, case studies and consultations. Literature available on the issue of tourism linked with disaster resilience are reviewed and analyzed. Analysis includes both quantitative data as well as qualitative information gathered during field study.

To make the study elaborative and thought provoking both quantitative and qualitative techniques are applied in the study. Basically analysis are based on the primary data collected from the consciously selected from multiple disaster hit Sindhupalcholk, Bhotekoshi riverside. Supplements are made from relevant policy documents, research articles, newspapers, reports and books.

3.3 How the Resilience in Tourism Conceptualized?

Disaster resilience is the capacity of tourism unit or community to cope and recover from some unexpected disaster events. In this study, disaster resilience capacity has been taken as independent variable.

This study has covered resilience, both capacity to response and recover from disturbances as well as the adaptation capacity for business continuity. In order to come out of the disaster situation tourism unit(s) has undergone series of initiations and programs which are often overlapping in nature and conducted through co-governance approach. Basically, the efforts from government institutions, local government initiative for balancing development task with the disaster management cycle is the key idea. Preparedness for risk reduction and business continuity plan for difficult situation demands clear understanding and active role of business units themselves. Considering these facts, representatives from all of these elements has been taken as key informants.

3.4 Data Collection Methods

Both primary and secondary data has been used to analyze the issue under consideration. Relevant documents, books, research articles, reports and magazines has been source of secondary data whereas field survey using key informant interview and observation has been used as a tool of primary data in this study.

While collecting primary data two types of interview schedule had been prepared tailored to the respondent's background and profession keeping all possible questions as common for making the analysis comparable. More importantly, a kind of field study and observation is also conducted side by side.

Case Study

A case study is an in depth comprehensive study of a person, a social group, an episode, a process, a situation, a program, a community, an institution or any other social unit. It is one of the most popular types of research methods. Its purpose may be to understand the life cycle of the unit under study. Case study method describes a case in terms of its peculiarities.

It gives us an insight into the typical or extreme cases whose unique features are not reflected by the statistical method. Basically, it is intensive analysis of many specific details. A case study aims at study of everything about something. In case study method, one can apply more than one techniques like interview, questionnaire, historical method, in descriptive method etc. It is useful in developing new concept or test existing concepts (Krishnaswami and Ranganathan, 2006).

Case study of a tourism unit is done taking two resorts namely "The Last Resort" and "Boarderlands" on the bank of Bhotekosi river. These two reports are deliberately selected in the ground that running in normal condition with their focus in adventure tourism.

Interview and Interview Schedule

Interview is prominent method of data collection widely used. It may be defined as two way systematic conversation between an investigator and an informant, initiated for obtaining information relevant to a special study. Interview is suitable method for gathering information from illiterate or less educated respondents.

Interview schedule is a tool to conduct structured interview. Two sets of interview schedule are used in this study, one for tourism business units and other to seek information from relevant stakeholders (Kothari, 2000). Interview schedule used are given in Annex I.

Data Analysis and Interpretation

Analysis of perception scale data is made based on SPSS tool. Besides, comparison, explanations, cause and effect analysis are other subsequent methods applied during analysis.

Appropriate relation and sequencing is made between primary as well as secondary data collected during the study. Its clear to note that study applies qualitative cum quantitative type of study as well as analysis method. Since the issue under study is not simple and uni-disciplinary, complicated phases of analysis is required to establish relationship between causes and consequences taking core aspects as necessary and sufficient condition to apply in the issue under study. It is mandatory to include government stakeholders, private sector institutions and media persons to discuss the issue under study in detail. Study is definitely focused on the tourism business persons or firms.

Unit of Analysis

Unit of analysis ranges from individual tourism unit and their professional organizations at different level focusing the performance at local level.

Methods to be used in gathering data

Since the issue under study cannot be addressed solely from rational analysis, few social science approaches are also used. Methodological pluralism is the issue which should be dealt with careful arrangement of qualitative and quantitative data collection techniques.

Indepth interview based on tailored questionnaires are conducted to find out the policy and program approaches as well as co-production and co-governance.

Statistical Methods to be Used in data analysis

Different units, variables and observations will be applied while dealing with the tourism related data in the target area. In doing so, number of tourists, recovery time will be taken as the proxy of the dependent variable i.e. tourism performance of tourism unit. Similarly, policy, program, local initiatives and capacity will be taken as the proxy to the independent variables affecting directly to the resilience capacity of the tourism sector.

Sample size

For the purpose of key informant interview, total of 32 persons from different organizations, business units and households are consulted and conducted in the one to one basis.

Methods and tools to be used to analyze the data

Basic statistical tools has been used to analyze the dependent and independent variables chosen in the study. SPSS is also used in analyzing the data.

Social Perspective of Explanation

One way to find analyze the causes and consequences relationship is to find the necessary and sufficient condition of a phenomenon. Also possible is the recognition of contributing causes therein in explaining the event. It is believed that few social constructs and value system can act as causation factor in developing the disaster resilient in community level. Apart from analysis of social value system and causation linkages it would be better if we can analyze the policy perspectives in tourism and disaster management which directly affect the actions and inactions of government authority at local as well as centre. Analytical discussion may include the priorities given by central as well as local government units, and other nongovernmental actors supposed to involve in the disaster management cycle. Case in point for elaboration has been included institutional arrangement, provision of enough resources and sense of urgency and timely action from government side in dealing with the preparation and response related activities related to the tourism units which are supposed to be in victim from the disaster events.

Issue of Validity and Reliability

Since the study comprises of empirical and analytical part, empirical part is validated through the proper standardizing of questionnaire. For the qualitative part sequencing, coherence and proper records of response that is obtained with the help of survey instruments. Besides, pilot test of the interview schedule and pre-survey visit to the study area are supposed to help to maintain the validity and reliability of the study.

Ethical Considerations

Apart from validation of the tools, in giving final shape to the structure to the dissertation, special attention has been given for proper citation, bibliography and acknowledgements.

3.6 Basic Attributes of the Respondents

During the research total of 32 tourism professionals, resort staffs, local residents and central level officials are consulted and interviewed.

Table 1: Gender Distribution

S N	Gender of participant	Percent
1	Male	87.5
2	Female	12.5
Total		100

Source: Field Survey, 2017 (N=32)

Out of 32 respondents 28 are male with percentage of 87.5 and remaining 4 are female with percentage of 12.5. This shows that respondents are gender inclusive in nature even if the ratio is unequal.

Background information of the respondents also contain the professional/work background ranging from community level to central level stakeholders. The composition of them is clear from the table given below.

Table 2: Category of Respondents

S N	Origin of the respondents	Percent
1	Resort staff	6.3
2	Bhotekoshi area people	3.1
3	District level stakeholder	15.6
4	Stakeholders in the Kathmandu valley	68.8
5	Destination journalists	6.3
Total		100

Source: Field Survey, 2017 (N=32)

Table 3 displays occupational structure of respondents is observed, most of them 68.8 percent are stakeholder based on Kathmandu valley followed by district level stakeholders (15.6 percent) and resort staff and journalists both with 6.3 percent value. Least representation is of Bhotekoshi area common people with 3.1 percent participation.

Table 3 : Role of Respondent's Organizations

S N	Role	Percentage
1	Tourism development	43.8

2	Disaster management	53.1
3	Both tourism development and disaster management	3.1
Total		100

Source: Field Survey, 2017 (N=32)

Another area of background analysis of the respondents is their occupational involvement. As shown in the table above, 43.8 percent of the respondents are involved in tourism development activities whereas 53.1 percent of them are one way or other involved in disaster management tasks in their respective organizations. Only 3.1 percent of the respondents are involved both in tourism development and disaster management field.

The role of participants on behalf of their organization or professional group is also listed and summarized in order to have inference as to what role they play in connection with disaster risk management (Independent variable) and tourism development (Dependent variable).

Major roles in disaster risk management consist of mitigation plan at local level, design and supervision of reconstruction, training for skilled human resources, policy and framework/action plan, framing of comprehensive DM act, organize national/international seminar workshop, study about the disaster, record keeping of success stories, DM plan at all levels, awareness raising, DRR policy, conducting mock/drill program, technical advice to DM, contribute as a member of emergency operation committee, assuring that recovery is possible, provision of relief materials based on recurring disasters, information gathering of disaster events, coordination with different actors working in DRR, protect from water induced disasters protection of soil, adequate power and authority to the concerned organization, manuals/ syllabus development, risk governance measures, structural and nonstructural safety.

Similarly, views about the major roles regarding tourism development are skill development training, development of trekking routes, operation of welfare fund (compensation and scholarship), make Nepal known to abroad, honorary representation while abroad, infrastructure development and maintenance, suitable adventure tourism activities, initiative

to run home stay, focus in cleanliness/sanitation of settlements, registration, certification and renewal, policy formulation and review, program design and implementation/explore new tourism destinations, construction and maintenance of trekking trails. Moreover, protection and development of cultural heritage, provision of financial resources, publication for tourism promotion, raising the issues related to transit trade, regular advocacy with policymakers, proper marketing of Nepal's tourism potentials as well as priority to tourism related transport and communication services.

In this way, it is clear to note that the respondents selected and consulted are quite relevant for the study.

Chapter IV

DESCRIPTIVE OUTLOOK OF TOURISM DESTINATION AN DISASTER EVENTS

4.1 Bhotekoshi Riverside Area

Field study of a tourism unit is done taking few resorts including "The Last Resort" on the bank of Bhotekoshi river, Sindhupalkchok hit by multiple disasters within two years. Few other tourism business units lying in Listi, Barabise, Marming and Mankha VDC lying across Jure Landslide are also studied during field visit.

Figure 3: Location Map of Bhotekoshi Riverside Area



Key informants are from tourism business owners/staffs of affected area as well as directly associated government as well as private sector institutions.

Bhotekoshi river originated at Tibet (China) and has amazing power from high up in Bhot (Tibet). It tumbles into Nepal through breathtaking gorges. Also, it is well know road corridor

running through North -South of eastern part of Sindhupalchok district reaching to Chinese border. This area is well known for ecotourism, adventure tourism and all tourism activities ranging from water to mountain.

Two Tourism Resorts at Bhotekoshi Riverside, Sindhupalchok are taken as unit for comparative case study to look into the resilience building practices. Brief description of the geographical location is given below:

4.2 Tourism Resorts

Two tourism resorts are closely studied for the purpose of study. Brief description of them is presented as follows:

The Last Resort

The Last Resort is located at Nayapul, 100 km away from Kathmandu and 14 Km from the Chinese boarder on the Kodari road and 14 Km from Nepal-China border. It is claimed to be "Perfect place for exciting adventures and complete relaxation"(www.thelastresort.com.np)

Tourism business unit with track record of first bungy jumping operation in Nepal starting since 1999 at Nayapul, Sidhupalchok located exactly 100 km away from Kathmandu on Kodari road. The resort across the Bhotekoshi river built a suspension bridge on which bungy jumping is conducted as an adventure tourism. Same owner and management team is also running a well equipped and unique resort named "The Last Resort" across the privately built bridge on which the Bungy Jumping is in operation. It is learnt that the Last Resort founded in 1999 jointly by one Nepalese and three foreigners seem to survive even after afore mentioned large scale disaster events.

Wide range of amazing adventures like canyoning through hidden passes and beautiful waterfalls, jumping off the 160 m high bungy jumping from the bridge, mountain biking, hiking in pristine nature with great views and rafting on the wild Bhote Kosi river. All these are great ways to gain the inner spirit.

Resort also provides platform to organize custom-designed team building programs. In this context, resort also used to conduct the high rope adventure that challenges personal boundaries, encourage teamwork and build confidence.

Founder of the resort is Nepalese in partnership with three foreigners from the countries New Zealand, Australia and Poland. And Nepalese founder is initially from Hetauda, Makawanpur and currently reside in Sundarijal, Kathmandu.

Professional training courses are also run in the resort in request. Sometime on the spot training are also given. Such training courses are up to 8-9 per month.

Operation of the resort get disturbed for 3 months due to Jure landslide. In earthquake resort faced damages. Only 18 out of 26 small tent houses are repaired till now.

The resort also operates rafting jointly with Ultimate River Private Limited in the downstream area of Barhabise.

As a corporate social responsibility of the tourism business, resort provides Rs 400000 to each of two neighboring VDC's. Also, those VDC's get Rs 20000 as an additional amount each year. This amount likely to be reduced after earthquake.

Adventure tourism activities run by the resort are bungee jumping, high ropes, rafting and canyoning. Main attraction of this resort is to conduct bungee jumping over the Bhotekoshi river. For this purpose suspension bridge over the river 160 m high from the river is used. One can see spectacular scenery in the location.

This resort is located at Listi where major tribes are from Newar, Tamang, Chhetri and Dalits. Resort also provides training to cultivate organic production in the catchment area. Resort has total of 42 staffs in field office and 12 in Thamel Corporate office. The resort distributed food grains within 7 days of the earthquake.

Average of 40 persons enjoy Bungy Jumping daily in the location. The last resort provide perfect environment, hospitality and cooperation to guests. Added roles are protecting the hilly slopes, falls and greeneries so as to maintain the attraction of Bhotekoshi riverline, Sindhupalchok.

Borderlands: Eco Adventure Resort

Full name of the resort is "Borderlands Eco-adventure resort". This resort also provide leadership development program. Course themes includes building self confidence,

energizing individuals, developing problem solving skills, cross cultural interaction, improving communication and listening skills, addressing behavioral issues, camp craft, abseiling and climbing, rafting and kayaking, hiking expeditions, wilderness experience, community service.

Borderlands is an exclusive riverside resort. This resort is regarded as adventure centre where one can pass time engaging in adventure activities, reading, listening to the sounds. It is built on beautifully sculpted, sprawling terraces alongside the river, with traditional thatched safari style tents. It can be reached by two and half hour drive from Kathmandu and it is just 16 Km south of Tibetan border.

Borderlands is also the founding member of "Namaste Nepal" a nonprofit/non government organization working towards the theme of "sustainable education for better living". Himalayan adventure travel mart is also conducted in leadership of borderland management.

Borderlands in conjunction with Nepal River Conservation Trust (NRCT) organized annual river festival on the Bhotekoshi and lobbies for its preservation. It has declared its area as plastic free zone. Major CSR activities of the resort are employment opportunity for local people (almost 90 percent), supporting 3 schools in the nearby villages. Professional development programs are also run by the resort. For example it has Kyake learning school in collaboration with other organizations.

The resort has corporate office in Nayabazar and marketing office in Thamel. Namaste Nepal raised funds and spent constructing eleven schools in the earthquake damaged area and two schools have already been handedover to the respective management committee.

4.3 Brief Description of Disaster Events

Brief description of major disaster events in Bhotekoshi Riverside area covered in this study is shown in the table 4 given below:

Table 4: About Three Major Disaster Events

SN	Major Disaster event and the year	Description
1	Jure Landslide, 2014	<p>Landslide occurred on the early morning of second August 2014 across the Bhoteskoshi river village, 70 Km north east of Kathmandu. Due to blocked water of Bhotekoshi a village plunged into water thus taking the lives of 156 people. Two kilometer road structure get damaged and highway get blocked thus cutting off the tourist flow towards Tatopani side.</p> <p>Based on the conversations with the locals at Barhabise it is learnt that due to Jure landsides shops at Barhabise are closed for more than a month. Road connection was cut throughout a month after the landslide.</p> <p>Due to this landslide, 5 village development committees are affected directly or indirectly. Many public and social organizations get involved in rescue, relief and other supporting role to the landslide victims. However, it took almost a month to come out of the road blockade.</p>
2	Earthquake, 2015	<p>Even though support inflow was well enough, victims didn't get valuable support in time due to poor management. Quick mission is needed in such tasks.</p> <p>According to the locals, After the earthquake event nearly 5 months passed in extreme difficulty. Even electricity was not in supply.</p>
3	Bhotekoshi Flood, 2016	<p>Floods in the Bhotekoshi River, a trans-boundary river originating on the southern slopes of the Himalayas in Tibet Autonomous Region and flowing through Sindhupalchowk, swept away more than 50 houses with 200 more at high risk. It created widespread destruction, an anticipated hazard waiting to happen after the Gorkha earthquake. Fortunately, timely evacuation of human settlements along the river bank ensured that no human lives were lost. However, the floods eroded</p>

		<p>stretches of road from Kodari to Jure landslide area and affected hydro projects such as the Upper Bhotekoshi and Sun Koshi causing disruption in the movement of people, goods, and services, and supply of energy (Shrestha & Shrestha, 2016).</p> <p>In case of Bhotekoshi flood, (June, 2014) people living in the riverside rushed to safe area after getting information from upstream settlements. Residents of the Bhotekoshi riverside had to leave their respective home for four days.</p>
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Source: Field Survey, 2017

Chapter Five

TOURISM AND RESILIENCE BUILDING AT LOCAL LEVEL

Important thematic discussions are made in the various subtopics given below with major focus in local level resilience building. Discussions are based on information obtained either of any or all from the literature review, field observation, interview and case study conducted during the field study of the Bhotekoshi area and consultations with the relevant stakeholders thereafter.

5.1 Adventure Tourism Potential in Nepal

There are many aspects for attraction in mountain tourism in Nepal. First and foremost means of tourism is not other than natural beauty of Nepal. And mostly due to this reason, there are a number of tourist attractions related to adventure tourism in hills and mountains of Nepal.

As one has cursory look into what foreigners mention about Nepal, it is clear to see many aspiring comments like "Nepal among 50 places to see before one dies" (BBC), Everest in the 20th journeys of a lifetime (Observer, UK), Everest base camp is one of Asia's 11th tourist destinations (Venture Magazine), Annapurna circuit as No 1 in hiking and trekking trip, Nepal as best ecotourism destination in the world (Tourism Market, WTO). These comments indicate huge potentials of tourism destinations in Nepal.

Major adventure tourism activities in Nepal are mountaineering, mountain biking, pony trekking, bungee jumping, swinging, rafting, kayaking, rope climbing, paragliding, canyoning, ultra light aircraft ride, marathon, skiing, rock climbing etc. Records like marrying in Everest peak has already been set. There are so many virgin Himalayan regions waiting for ecotourism activities in Nepal. Tourism activities influences other components of GDP and get influenced by all other sectors of policy and actions (MOCTC, 2016).

Several articles and media coverage mention that Bhotekoshi area is well known for ecotourism thus giving way to adventure tourism activities. In this assumption, resort staffs, owners, locals and other stakeholders are asked about their knowhow about the potentials of adventure tourism in the Bhotekoshi riverside area. In their response the resort owners mentioned that more than ten activities are viable in the area. Those adventure activities include resort for accommodation, bungee jumping, rafting, trekking, swinging, canyoning, high ropes, hiking, rock climbing and professional field courses.

To find the acquaintances on the activities of adventure tourism, question was asked as to know what the respondents know about potential adventure activities in Bhotekoshi area. Based on the response, number of activities are listed and analyzed as shown in the table below.

Table 5 : Adventure Tourism Potentials of Bhotekoshi Area

Number of potential adventure tourism activities	Up to 3 activities	3-5 activities	More than 5 activities
Percentage	31.3 %	40.6%	28.1%

Source: Field Survey, 2017 (N=32)

As the table 5 above indicates the participants of the field survey during interview show their knowhow about the adventure tourism potentials of Bhotekoshi area clearly. As the responses are analyzed in number, 40.6 percent of the respondents go for activities group of three to five, 31.5 percent of them mentioned only up to 3 major activities whereas 28.1 percent of them opine for more than 5 adventure tourism activities possible in the region.

Overall, it is clearly seen that there is plenty of possibilities in the area to run adventure tourism packages. For this infrastructure development and their timely maintenance is very important. Besides, effective implementation of policy documents is prerequisite to get the desired results.

5.2 Disaster Events, their Reasons and Impacts in the Area

Both groups of respondents namely those taken for case study (people involved in tourism business including owner) and stakeholder (Tourism development and disaster management) consultation (from local to central level) are asked whether they are informed about the disaster events occurred in recent years. Interestingly all of them are familiar to disaster events in the area. Business entrepreneurs and staffs are well informed about the event and whatever happen after the events whereas stakeholders show a range of know how about the events.

Table 6: Major Disaster Events as per Knowledge

S N	Adventure tourism activities in the study area	Percentage of response	Order of response
1	Jure landslide	9.4	IV
2	Earthquake 2015	3.1	V
3	Bhotekoshi flood	31.3	I
4	All 3 of above	9.4	IV
5	Additional explanations about 3 major disaster events (Jure landslide earthquake, Bhotekoshi flood)	21.9	III
Total		100	

Source: Field Survey, 2017 (N=32)

While asked individually to mention the major disaster events in the Bhotekoshi riverside area, stakeholders replied in their different version. As shown in the table 6 above, 31.3 percent of the respondents not only expressed about three major disaster events but also explained the further consequences of those events in the area. One fourth of the respondents expressed about only 2 disaster events whereas 43.8 of the respondents show their familiarity in any one of the major disaster events. In this way, some or all or additional explanation of three disaster events are covered in the responses of interview. Interestingly, all of the respondents show their minimum knowhow about the multiple disaster events occurred in the Bhotekoshi riverside area.

Same question is asked to the tourism business unit owner/staff. In their reply which is tabulated in Annex II, both of the respondent on behalf of the resorts explained more about the consequences and additional events in connection with the three major disaster events. One of the owner described about the closure of Nepal-China transit at Tatopani for the long time whereas second respondent of the case study elaborated about the destruction of tented hut of Borderland resort by a big stone. It slid down to the resort premises from the Bhotekoshi hydropower construction site in 2015.

When question is asked about the reason behind the recurring disaster events in the area most of them mention that people are helpless, they have no alternative, they don't know how to be safe and most importantly the area is very difficult and fragile. When they are asked to categorize among three heads namely natural, human induced and both natural and human induced, the responses obtained seems to be as given in the table below.

Table 7: Reasons Behind the Three Major Disaster Events (in Percentage)

S. N.	Causes behind the disaster	Disaster Events		
		Jure Landslide	Earthquake 2015	Bhotekoshi flood
1	Natural	28.1	96.9	59.3
2	Human induced	15.6	0	9.4
3	Mixed	56.3	3.1	31.3
Total		100	100	100

Source: Field Survey, 2017 (N=32)

The table above clearly indicates that for earthquake 2015 and Bhotekoshi flood, major reason is natural whereas in case of Jure landslide mixed reason outnumbered the other two categories of reasons. In case of flood, second reason is mixed one thus demanding human sensitivity in settlements and preparedness.

As we see other literatures, we see basically topographical, lack of awareness and preparedness and mitigation related causes for the happening of disaster cases which resemble with the responses listed above.

Immediate effect and impact analysis from three major disaster events is analyzed both in individual business basis and broadly as the study area basis. Between two resorts only few matter is different and most of the consequences and severity level resembles. All the three disaster events had adverse effect to both the resorts. For example: both the resorts under study remained closed for 3-12 months except the Borderlands didn't shut down in case of Bhotekoshi floods and level of severity is quite high in all the events. Number of tourists decreased and also the pattern of tourist arrival changes from abroad centric to internal tourism oriented.

During field observation of the study area, many signs, sayings, damaged structures demonstrate proof about the far reaching impact of Jure landslide, earthquake 2015 and Bhotekoshi flood. As the question about level of impact was raised during interview with stakeholders the responses obtained are numerically analyzed and tabulated as below.

Table 8: Scale of Impact from Three Major Disaster Events (in Percentage)

S. N.	Level of Impacts	Disaster Events		
		Jure Landslide	Earthquake 2015	Bhotekoshi flood
1	No impact	0	0	9.4
2	Negligible impact	12.5	0	50
3	Substantial impact	50	12.5	28.1
4	Critical impact	37.5	87.5	12.5
Total		100	100	100

Source: Field Survey, 2017 (N=32)

As shown in the table 8 above, most serious impact was from earthquake 2015 followed by Jure landslide on the basis of severity level. All the respondents opined that Jure landslide and earthquake 2015 leave no one unaffected whereas 9.4 percent told that Bhotekoshi flood didn't cast any impact, 12.5 percent with critical impact, 28.1 substantial impact and 50 percent with negligible amount. In sum, impact seems to be omnipresent with varying level.

5.3 Leading Actors in Components of Disaster Management

Disaster management is increasingly known to be an important crosscutting issue which demands integrated model of intervention. Three major phases of disaster management cycle are simply put pre-during and post disaster taking the point of disaster event as its reference point. Based on these components respondents are asked to mention the leading actor for the particular disaster management works.

During in depth information seeking with the resort owner or staffs issues about major tasks to accomplish and responsible actors for that tasks are discussed. In preparedness and mitigation stage both of them assign government as the lead actor and urge for sustainable infrastructure to provide facilities like road, electricity and their maintenance. Secondly, they go for compliance of business and citizen awareness about the basic essentials of preparedness. Thirdly, both of them opted for advocacy, awareness and other possible supports from the third sector NGOs, CBOs and clubs. In the stage of rescue and relief activities, again they go for government security forces and administration. Then after, another important task is stockpiling of essential items and medicinal supports as well as proper management of supports obtained and mobilization of professional teams. Again government agencies play important role to keep the transportation service uninterrupted and smooth functioning of custom and transit facilities with application of necessary diplomatic efforts. In the post disaster phase of disaster risk management, government, business and other supporters have to co work for the common objectives. In this phase also smooth functioning of road transport, confidence building to the locals and provision of enough fund for response activities are highlighted.

During stakeholders interview information sought as to which actor is made responsible among government, business, local community and other joint efforts and the responses are analyzed in the basis of their choice. The result of the analysis is given in the table 9 below.

Table 9: Leading Actors in Disaster Risk Management

S.N.	Stages of Disaster Management	Lead Actors of Disaster Management	Perception in Percentage	Order of importance
1	Mitigation and preparedness (Before disaster)	Government	68.8	I
		Business	6.3	III
		Local community	3.1	IV
		Other combinations	21.9	II
2	Relief and Rescue (During and immediate afterwards of disaster)	Government	56.3	I
		Business	9.4	IV
		Local community	18.8	II
		Other combinations	15.6	III
3	Response and Recovery- "Build Back Better" stage (After disaster event)	Government	65.6	I
		Business	3.1	IV
		Local community	12.5	III
		Other combinations	18.8	II

Source: Field Survey, 2017 (N=32)

As it is clear from table 9 above that all the three stages has to be driven by government leadership whether it is from central or local level followed by other combinations in case of preparedness and response whereas local community in case of relief and rescue. This indicates that locals are first rescuers in many cases.

Kafle, 2017 mentioned four components of disaster preparedness namely planning, training and education, rescues related management, exercising/drilling of disaster preparedness. Other elements of disaster preparedness range from organization and leadership, personnel, equipments and systems, evaluations and corrective actions in a coordinated and sequential manner.

The responses about the probable role of main actors involved in disaster management are listed during the interview. Those categorized information are summarized for the purpose of subjective analysis. As per their views and concerns they believe in government in carrying

out tasks like disaster vulnerability assessment, land use plan and its enforcement, hazard study/survey and reconstruction planning, provision of rescue team and materials, keeping road in condition, supervise and facilitate for the construction of structure or retrofitting in accordance with the standards, earning and capacity development programs. Moreover, government is further entrusted for integrated information and communication, early warning system eg. siren use, safe and environment friendly settlements, watchdog groups for the best use of funds, relocation of settlements in suitable place, well equipped rescue operation, manage to conduct awareness, preparedness and reconstruction in the integrated way, integrated efforts in tourism related activities, timely mobilization of resources, hosting international gathering of media people for the actual tourism marketing and so on. Government should be always active in policy reform, standards review, employment preference to the victim's family, proper relation between and among lead and co-lead agencies for response actions, use of mechanism lead by impartial and reputed person will work in authorized and legally powerful institution and developing alternative service delivery options like road/electricity/drinking water/transportation.

Business sector should also be willing to support to the government's policy and program, maintain compliance with government standards/codes, remain alert to the possible unfavorable events and fulfill the basic requirements like emergency or business continuity plan and apply insurance scheme for the business activities. Besides, they should be prepared for possible relief materials to the needy households of the surrounding area in the form of corporate social responsibility.

Community and other supporting organizations including local stakeholders should have mechanism for information dissemination through media, mobilizing financial supports by countries and aid agencies in prudent and transparent manner, run awareness activities, skill development programs and make use of local resources and technology. Sometime their involvement in building small structure and their maintenance, preparing local level disaster management plan, stock keeping of basic relief items at local level, mobilization of trained rescue team/management team at local level. Also they can assist in keeping record of DRR and response activities, run campaign for plantation, develop themselves as first rescuers, empower community for disaster management, formation of reconstruction facilitation committee at local level, promoting volunteerism, use of civil defense force against disaster

vulnerabilities, provision of training from professional groups like red cross and develop and advocacy for developing and demonstrating designs fit to local context for sustainability.

Nepal's current disaster management practice gives low priority to preparedness and mitigation. Poor application of policy like enforcement of building code, and implementation of land use policy is one of the dark area whereas condition of scattered responsibilities in case of relief and rescue is another fault line of Nepalese disaster management policy (Acharya, 1996). In the recent year drafts of act is prepared and few frameworks are applied in line with disaster risk reduction.

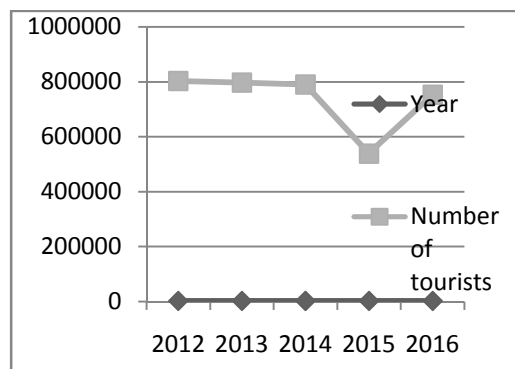
5.4 Tourism Development and Disaster Events

Tourism is a sensitive sector which has direct influence from any kind of disaster events. While question is asked about the possibility of relation between tourism and disaster events, all of the respondents (100%) clearly mention that there is relation between the two phenomenon and the nature of relation is negative i.e. if the disaster hit a business unit then there is every chance for the decline of tourism performance.

Tourism Business Performance

Data about tourism inflow to Nepal is taken from secondary source and changing pattern is analyzed. The scenario of the changes or fluctuations simply seen to be fluctuated after the disaster events occurred in Nepal as shown in the following diagram.

Figure 4: Rise and fall in number of tourists



Source: MOCTC, 2017

When similar question is asked to the business owners and staffs of Bhotekoshi area, they put their views in such a way that each and every big disaster events resulted in partial or full closure of the business for certain period of time. For example, The Last Resort had to be closed for 3, 6 and 4 months and Borderlands had to shut down for 3, 12 and 1 months after the disaster events of Jure landslide, earthquake 2015 and Bhotekoshi flood respectively. Moreover, the owner also mentioned that the pattern of tourists also changed from 70:30 to 30:70 after those giant disaster events.

As the impact of disaster events is explored during field observation and consultation it is learnt that few other tourism business units like Iku Resort had been closed after the earthquake. Home stay program in Helambu area and Bhotekoshi couldn't run after the catastrophe. This argument matches with Post Disaster Need Assessment (PDNA) Report published by National Planning Commission (NPC) claiming that there is damage and loss of 16295 hotels, 2215 home stays, 415 eco lodge and 6137 of trekking trails.

Recent literatures describe disaster tourism as new approach to tourism development. But it is almost impossible in case of Nepal in early future to utilize devastating events for the sake of tourism attractions. Only few respondents explain that even though the effect is negative, it can be turned into positive in the long run thus showing the possibility being a distant matter.

5.5 Existing Level of Resilience and Role in Resilience Building

Level of resilience in the community level is outcome of many efforts to make the community self sustained and strong enough to bounce back to at least to the original position. During field visit, many confusions, partial or full closure of business, displacement from village to town area are noticed. None of the business units nor other households or communities seem to be well aware and prepared to face calamities at that time.

While conducting interview with the varied stakeholders from centre, district as well as local level question is asked as to know about the level of resilience at community level and result obtained is tabulated as below.

Table 10: Level of resilience in the disaster hit community

Level of resilience	Strong	Medium	Weak
Percentage of	0	34.4	65.6

Source: Field Survey, 2017 (N=32)

From the table 10 above it is clear to note that the community level disaster resilience is either weak (65.6 percent) or up to medium level (34.4 percent) but no single percentage to attain strong level of resilience. This shows that none of the stakeholder have confidence enough to describe the local community to be disaster resilient.

Combaz (2014) give 3 levels of impacts in resilience namely positive (+), Neutral (o)and negative (-). This classification seems different from the category taken for the purpose of analysis in the study. Anyway positive type of resilience is needed in order to address the capability gap in community level disaster resilience.

5.7 Functions of Disaster Management in Order of Importance

In recent time, disaster management has been transformed from reactive to proactive giving priority to mitigation measures and preparedness works in course of development.

There should be 3 fundamental aspects/functions of tourism policy namely satisfaction of the tourists, environment friendly (sustainability through intergenerational equity) and facilities and special provisions (eg. visa process, fee). Tourism policy as a crosscutting policy is devised based on the macroeconomic policy framework. Basically, two aspects come under this. First is economic growth rate which focus in urban based tourism and the other is modernization which emphasize for recreation and adventure.

5.8 Institutional Mechanism for Disaster Risk Management

District Disaster Risk Reduction Strategy and District Level Disaster Preparedness and Response Planning is prepared by Sindhupalchok District Disaster Relief Committee

(DDRC) in post earthquake days. The strategy is based on the best practices and lesson learnt in past disaster events. Apart from vision, objectives and expected outcomes the strategic paper highlights on strategy implementation part covering the development of institutional basis, capability development at local level in order to assess the hazards, adaptation and enforcement of norms and codes prepared and also information communication and reporting system. Actually it is a good start to move ahead with coordinated and well defined mechanism at district level.

General process of community based DRM as mentioned in Kafle, (2017) include rapport building with community, community profiling, community risk assessment works, formulation of initial disaster risk reduction plan, formulation of community disaster response plan, implementation of reduction measures, monitoring and evaluation. Institutionalization of CBDRM requires strong policy support, existence of formal organizations/institutional support, institutionalized budget, presence of dedicated, trained and competent personnel and political will.

Nepal Red Cross Society, National Society for Earthquake Technology- Nepal (NSET) and American Red Cross jointly published a handbook for disaster preparedness and drill in Schools. This covers as its main content as school disaster preparedness plan in relation with community and its timely updates, do's and don't do's activities during different kinds of disaster events by drill practice for the preparation. The handbook seems to be systematic and standard.

Few model program are being run by National Society for Earthquake Technology- Nepal (NSET) in cooperation with USAID like promoting public private partnership for earthquake risk management (3PERM), Building Code Implementation Program for Municipalities of Nepal, Program for enhancement of emergency response (PEER) are few of them. NSET also published several educational materials regarding disaster management. For example, a booklet with name of Earthquakes is published covering 30 frequently asked questions and answers by NSET Nepal. Thus dynamic presence of professional organization like NSET counts a lot to create a common understanding and creating conducive environment to address the vivid issues of disaster management at local level.

Tourism safety and rescue tasks are better managed with the help of professional group of police. Considering this demand a separate group of police is formed in the name of Tourism Police and until now total of 16 units are in the operation in overall management of Ministry of Culture, Tourism and Civil Aviation. This professional group of police looks into tourism related crimes and support in the disaster relief works.

The level of intervention through programs ranges from weak to strong. In this concern, question is asked as to which level are their intervention in the disaster management cycle. The responses when gathered and analyzed it came to know that mostly their works are in the form of strong intervention (71.9%) followed by medium level intervention (25 %) and weak level of intervention (3.1%) as shown in the table 11 below.

Table 11: Level of intervention as claimed by concern actors

S N	Level of intervention	Percentage
1	Mostly strong level	71.9
2	Mostly medium level	25
3	Mostly weak level	3.1
Total		100

Source: Field Survey, 2017 (N=32)

Resilience building is an important concept requiring support and participation from multiple fronts. There is no any unanimous norms of model as to where a particular organization should involved. In this background, participants are asked about the role of their organization based on previous practices and possibilities. It is seen that most of the participants (40.6 Percent) get involved in the form of either of the vision, mission, strategy and programs. Preparedness and capacity development related tasks are of equal value (15.6 percent) followed by awareness and innovation as shown in the table 12 below.

Table 12: Lead role in resilience works

S N	Options	Percentage
1	Lead role of government	31.3
2	Leading role of business	6.3
3	Leading role of local community and organizations	6.3
4	Other combinations	56.3
Total		100

Source: Field Survey, 2017 (N=32)

NSET and NBI, 2016 proposed 6 steps of emergency preparedness and response planning for business (a guide for self assessment) . The steps are to establish commitment, conduct a vulnerability assessment, reduce your vulnerability, develop an emergency response and business continuity plan, implement your plan and help your community preparedness for and response to emergency.

Changed context of disaster risk management paradigm demands different work style and creativity. Views towards developing resilience has been changed across pass of time. Participants are asked about the past role of their organizations in post disaster days and responses are categorized. Similarly, they are asked to mention what would be better ways so that resilience building becomes possible and responses obtained are also classified under same headings for comparison.

Table 13 : Actual vs. Expected Role for Resilience Building

Involvement	Policy and program focus	Structure focus	Capability focus	Awareness focus	Preparedness focus	Rescue and relief focus
What was?	31.3	21.9	9.4	18.8	6.3	12.5
What ought to be?	40.6	3.1	15.6	12.5	12.5	15.6

Source: Field Survey, 2017 (N=32)

As the question is asked about activities of the corresponding organization, different kinds of responses are listed. As shown in the table 13 above, 31.1 percent of the participants responded that their organizations are involved in vision, mission, strategy, programs designing functions whereas 21.9 percent are involved in structure related works, 18.8 percent are involved in awareness and information kind of tasks followed by rescue and relief, preparedness and capacity development.

Regarding the expected role of various stakeholders in the field of disaster risk management, Table 13 given above clearly indicates that aspects like policy, preparedness efforts, capability building should be aligned with the resilience building instead of focusing only in structure and awareness.

Similarly, information gathered during case study also has few assertive suggestions. For example: major "to do" tasks are development of quality infrastructure, awareness raising at all levels, use of alternative service delivery mechanisms like use of solar power for energy source, provisions for early warning system and effective coordination mechanism.

As we go through few research articles during literature review few insights about resilience are notable. For example: characteristics of resilience framework of Twigg (2009) uses 5 elements of resilience namely, governance, risk assessment, knowledge and education, risk management and vulnerability reduction and disaster preparedness and response. These resemble with the indicators identified in Hyugo Framework for Action. Disaster resilience has multiple benefits like reduction in human casualties, protection of infrastructure and livelihood, protection of social systems, protection of environment and international collaboration.

OECD, 2013 give comprehensive list of components of resilience in an individual, community and state level. It is relevant to mention the list of community level resilience components. They are risk awareness, leadership and organization, social capital: cultural cohesion and trust, common identity, participation, collective action, appropriate infrastructure and services, economic opportunities and livelihood diversity, natural resource management, conflict prevention and resolution mechanisms, connections with local

authorities and external actors, equitable land usage systems and also development of spare capacity.

Flagship 4 Handbook, 2013 applied pragmatic approach and listed Nepal's 9 minimum characteristics for disaster resilient community as organizational base at local level (Community/ward level), access to disaster risk reduction information, multi-hazard risk and capacity assessment, DRR/DRM plan at local level, access to community managed DRR responses, DRR funds, local level risk/vulnerability reduction measures, community preparedness/response teams and community based early warning systems. Each of the characteristics given above has to be dealt with suitable breakdown into several indicators based on the local needs and vulnerability level.

A focus on resilience means putting greater emphasis on what communities can do for themselves and how to strengthen their capacities rather than concentrating about the needs in an emergency.

Community when prepared for disaster management, they can absorb or transfer risk thus making the disaster management less costly and sustainable. One of the means for risk partnership and risk transfer is to take part in the insurance scheme appropriate for human life and structural safety.

5.9 Lessons Learnt from the Recent Disaster Events

After the series of disaster events in the same location, level of sensitization and realization has been scaled up. In this concern, question was asked with business runners as well as other tourism/disaster stakeholders. To mention in a summarized form, back up plan should be there to tackle post disaster situation. There should be spirit of collectivism as a driving force. In the community level simple but resistant shed is good to be as an emergency support purpose. Besides, construction works in safe places is basic requirement to comply. In the post earthquake scenario, commitment to support was quite large but realization became very small. In the long run, getting money as relief does not work enough rather inflow of tourists and promoting internal tourism help in sustaining the business.

The responses about lesson learning were classified under 3 groups and analyzed as given in table 14 below.

Table 14 : Lesson Learning from Recent Disaster Events

S N	Kinds of Lesson learning	Percent
1	Lesson learnt and applied	37.5
2	Lesson learnt but not applied	40.6
3	No lesson learning	21.9
Total		100

Source: Field Survey, 2017 (N=32)

Above table 14 clearly indicates that lesson learning is made in large scale but application of those learning is weak.

As the literature about lessons learnt from Asia Pacific for Nepal's Earthquake recovery few finding became clear to note from ESCAP report. As the report highlighted, recovery is a time consuming process, sustainability is a fundamental for build back better, institutional arrangements need to be collaborative and increasingly evolved. Besides, keeping people at the centre and focusing on the process is important. If we use technical approaches they should be detailed and context specific. Capability building is a must for long term self reliance. At last it is mentioned that quality and accountability are the key to successful reconstruction programs.

As we see the views of the business entrepreneurs about recovery process they opined that it is hard to recover well and it is basically due to lack of visioning. Since natural state of the river and the mountain is disturbed coping is becoming hard in Bhotekoshi corridor. Politicians, policy makers and people (3p) have to understand the importance of Bhotekoshi area tourism. It should be well understood that Bhotekoshi is world class (7th best) river tourism. Sunkoshi beach camp work with village/communities for few good works like river restoration project, livelihood (income) generation etc.

Efforts on increasing preparedness, and putting mitigation measures into place, will help minimize the adverse impacts of possible landslides and floods. For example, the Department

of Hydrology and Meteorology (DHM) has, for the second year, put a 24/7 flood watch with a telephone hotline for providing timely warning of imminent flood situations.

Actions such as preventing people from living in flood plains, hazard zoning land use planning, and improving preparedness of communities, could help reduce the losses. Early warning systems play an important role in alerting the communities. Warnings that are understood and accepted by communities and prompt communities to take informed actions lead to saving lives and properties. Assessment of risk and vulnerability reduces the exposure of people to these multi hazards and minimizes the adverse impacts.

The Bhotekoshi flood has also reemphasized the need for trans-boundary cooperation. The floods in the Bhotekoshi River originated in Tibet, China, but caused destruction downstream in Nepal. An early warning system in the upstream can provide adequate lead time and save lives and infrastructure from flashfloods such as glacial lake outburst floods and landslide dam outburst floods. A real-time data sharing mechanism and an early warning system are essential.

International Centre for Integrated Mountain Development (ICIMOD) has established a regional flood information system for sharing real-time data and information and promoting trans-boundary cooperation. The results of the regional flood outlook piloted in 2014 indicate that it is a promising tool that may support effective flood forecasting in the Himalayan region.

Interview and discussion with Megh Ale, one of the pioneer of Nepalese adventure tourism in Bhotekoshi area revealed few more facts related to the area. Few years back Nepal Association of Rafting Agents (NARA) advocated for shifting Bhotekoshi dam to the upstream and preserve the world class river basin. Campaign also run for a period. It is advocated that haphazard construction works are man made threat to the ecotourism. Also, the permission to run crusher industry further loses its beauty.

Lastly, additional suggestions are sought both from local business persons as well as relevant stakeholders. Among other things trust building among all stakeholders is suggested. Innovations, awareness at community level, institutional strengthening and policy dynamics are few of other suggestions to mention. Most importantly, mainstreaming development tasks with disaster management cycle is the prime task to do.

Chapter VI

FINDINGS AND CONCLUSION

6.1 Findings

Adventure tourism potentials of Nepal is in waiting for proper response from all the stakeholders from local to central level. This is true in case of Bhotekoshi area too. Bhotekoshi area is tourist destination of several adventure related activities.

Business owners, various stakeholders of disaster risk management are well informed about the disaster events and their bad consequences. The perception about the reasons of the events ranges from natural reasons, human induced and mixed. This findings about the knowledge about adventure tourism potential as well as frequent shock from disaster events is different from the assumption made regarding the area.

It is evident to note that the difficulties encountered by tourism units of Bhotekoshi riverside, Sindhupalchok amidst multiple disaster events at least one big catastrophic one in a year in all three consecutive summer of 2014, 2015 and 2016. Consequences of these disaster events ranges from blockage of Kodari road linking Chinese market to Kathamandu via different small roadside settlements of Kavre and Sindhupalchok. Results with deeper effects include destruction of buildings, loss of lives and property, severe damage to the road alignments, non-operation of cross boarder trade with China via Tatopani thus directly influencing the economic activities like employments and income to locals from the trade as well as earning of tourism related business like resorts, rafting, bungee jumping along with other spill over effects from number of tourists inflow to the Bhotekoshi area.

Level of impact due to three major disaster events are mostly severe and with many bad consequences ranging from closure of transit route to China, shutting down of earlier existing resorts, set back to newly started home stays in Helambu area and adventure tourism activities like high ropes and trekking in the area.

Gradual shift is seen regarding disaster risk management from rescue and relief orientation to pre-disaster activities at government, community and other stakeholder level. Similarly,

practice of integrated measures to cope with disaster related impacts has begun. Both of these findings are as per the assumptions made in course of this study.

To sum up, the resilience level of the tourism business units of Bhotekoshi riverside is very weak. Disaster risk management is not spelled out in the annual calendar of the tourism resorts. Neither of the policy documents and programs seem to address the interrelation between tourism performance and disaster events.

6.2 Conclusion

There is tremendous potential of adventure tourism in the Bhotekoshi area of Sindhupalchok district.

Since the main reasons behind the disaster events are found to be low level of awareness, weak status of preparedness and mitigation tasks thus justifying the independent variable as the immediate causes behind the resilience level. All of the three disaster events result in substantial to critical level of impact in the locality. The events also show that capacity resist with such events is mostly important so as to reduce the loss and facilitate early recovery.

Disaster resilience level at local level in case of tourism business units seems to ranges from weak (two thirds) to medium (one third) with no symbol of strong condition.

Even though "resilience" is new jargon yet to be known and practised at each level of disaster management, it is positive terminology used in disaster risk management. It is aggregate of capacity building, focus to preparedness tasks, integrated and coordinated efforts to build back better in post disaster management stage as few of the essential ingredients for disaster resilience building. It is also reflected in development of social, economic and technological capital to be used in exploring both problems and their solutions. In essence, disaster resilient community is needed for sustainability of tourism especially in rural area.

Based on the responses on expected role of the actors for different stages of disaster risk management, it is concluded that government is foremost choice and integrated effort of

different stakeholders is second choice in case of mitigation and preparation phase and recovery phase whereas it is third choice in case of relief and rescue phase. Similarly, role of local community stood fourth out of four actors for mitigation and preparation, second in case of relief and rescue and third in recovery. Business sector stood third in preparedness and mitigation and fourth in both rescue phase and recovery phase. Combined role of different actors which is termed as integrated model in the study seems to be second in case of preparedness and recovery and third in case of rescue.

Unbundling the role of different actors so as to have specialized intervention is important. In this scoping exercise, government is trusted for vulnerability assessment, land use plan and its enforcement, planning for reconstruction, keeping basic infrastructure in condition and facilitating early warning systems, rescue-recovery and reform actions. Similarly, business sector is better to support to the government's policy and programs, codes and standards standards, remain alert to any unfavorable events, use of business continuity plan, application of available insurance schemes, keeping emergency relief materials in the business unit and make community level projection for necessary support in post disaster scenario. Community based and other supporting organizations are entrusted for information dissemination, awareness activities, participate actively for preparing local level disaster management plan, capacity building for enabling as first rescuers and promoting volunteerism in resilience building and post disaster support.

Regarding the expected responsibility for resilience building works, top priority is seen to the combined role of the actors for activities related to capacity building as 56.3 percent followed by lead role of government (central to local) in policy and program cycle and then that of business and local community for their active participation in disaster management cycle. This also indicates that the issue of resilience building as an important component of disaster management is increasingly taken as cross cutting issue to be tackled in an integrated way.

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Annex I

A. Interview Schedule for Tourism Business Owners/Staffs

(Note: Information collected with the help of this interview schedule is used for academic purpose and outcome of the study will be used only for collective analysis)

1. Name of the respondent:

On behalf of the tourism business unit:

Owner

Staff

2. Type of adventure tourism activities run by the tourism unit and related information.

S N	Tourism Activities in Operation	Year of commencement	Services offered
1			
2			
3			
4			
5			

3. Information regarding tourism related transactions and income

) Tourists arrival per month....

) Income per month.....

) Major 3 areas in which income amount is being spent....

4. Do you have any idea about multiple disaster events occurred in Bhotekoshi riverside tourism area?

(a) Yes I know (b) No, I don't know

(c) If yes, tell me about major disaster events....

5. Who should be responsible for different stages of disaster management tasks?

S N	Function	Responsibility (in the order of importance 1-3)
1	Mitigation and preparedness	1..... 2..... 3.....
2	Rescue and relief works	1..... 2..... 3.....
3	Post disaster works like build back better	1..... 2..... 3.....

6. In your view, what are the possible activities related to adventure tourism in the Bhotekoshi riverside area of Sindhupalchok?

- 1.
- 2.
- 3.
- 4.
- 5.

7. Do you see any interrelation between disaster event and tourism activity? If so what kind of relationship is there in case of Nepal?

(a) Yes (b) No if yes then positive/Negative

8. What are the preparedness and mitigation related activities to deal with the probable disaster events in the Bhotekoshi riverside area?

- 1.
- 2.
- 3.
- 4.
- 5.

9. Impact analysis of the disaster to the tourism business and related descriptions

Disaster events	Effect (Y=Yes/N=No)	Type of loss (Access related, closure, partial closure)	If Y what is the level impact? (1-5)
a. Jure Landslide			
b. Earthquake 2015			
c. Bhotekoshi Flood 2016			

10. Further analysis of impacts to the tourism units and tourism activities

Disaster type	Number of Tourists				Number of employee and their salary		Total Loss
	Internal		Foreign		Before	After	
	Before	After	Before	After			
Jure landslide							
Earthquake							
Bhotekoshi floods							

Note: Data presented in monthly basis

11. Analysis of Post Disaster Support/ Response Activities

Disaster	Supporting Actor (s)	Description about the efforts	Gap between expectation and supply
Jure landslide			
Earthquake			
Bhotekoshi floods			

12. Time taken for recovery of your business

-) Restart of business:Days
-) Return to the full swing
-) Is there any activities which are partially or fully closed till now?.....

13. What kinds of resilience activities can be run by the tourism business owner themselves?

Mention based on the resilience capacity level.

S N	Resilience activities	Level of resilience capacity (Strong, Medium, Weak)
1		
2		
3		
4		
5		

14. Who support your business unit in time of difficulty?

- (a) Government agency
- (b) Local community
- (c) Non government organizations
- (d) Type of combinations.....

15. What in your opinion are the three major lesson learnt from the events?

- a.
- b.
- c.

16. For the purpose of early warning system and preparedness what kind of activities can be useful so as to build up resilience capability at the local/community level and who should be responsible to carry out those functions?

S N	Resilience building related activities	Responsible
1.		
2.		
3.		
4.		
5.		

17. Additional suggestions about building resilience in tourism sector.

- 1.
- 2.
- 3.
- 4.
- 5.

Thank You.

B. Interview Schedule to the relevant tourism stakeholders (Officials, Professionals and journalists)

(Note: Information collected with the help of this interview schedule is used for academic purpose and outcome of the study will be used only for collective analysis)

1. Name of the respondent:

2. Office/Organization:

Post:

3. What kind of activities are run by your office/organization for tourism development/disaster management?

- a.
- b.
- c.

4. Do you have any idea about multiple disaster events occurred in Bhotekoshi riverside tourism area?

(a) Yes I know

(b) No, I don't know

(c) If yes, tell me about major disaster events.....

5. What do you think are the reasons behind the 3 main disaster events?

1. Jure Landslide	1. Natural 2. Human induced
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	3. Mix of natural and human induced
2. Earthquake 2015	1. Natural 2. Human induced 3. Mix of natural and human induced
3. Bhotekoshi flood	1. Natural 2. Human induced 3. Mix of natural and human induced

6. What is the level of impact of 3 major disaster events?

1. Jure Landslide	1. No impact 2. Negligible impact 3. Limited impact 4. Substantial impact 5. Critical impact
2. Earthquake 2015	1. No impact 2. Negligible impact 3. Limited impact 4. Substantial impact 5. Critical impact
3. Bhotekoshi flood	1. No impact 2. Negligible impact 3. Limited impact 4. Substantial impact 5. Critical impact

7. Who should be responsible for different stages of disaster management tasks?

S N	Function	Responsibility (in the order of importance 1-3)
1	Mitigation and preparedness	1..... 2..... 3.....
2	Rescue and relief works	1.....

		2..... 3.....
3	Post disaster works like build back better	1..... 2..... 3.....

8. In your view, what are the possible activities related to adventure tourism in the Bhotekoshi riverside area of Sindhupalchok?

- 1.
- 2.
- 3.
- 4.
- 5.

9. Do you see any interrelation between disaster event and tourism activity? If so what kind of relationship is there in case of Nepal?

(a) Yes (b) No if yes then positive/Negative

10. What kinds of resilience activities can be run by the tourism business owner themselves? Mention based on the resilience capacity level.

Resilience activities	Level of resilience capacity	Level of contribution of community in resilience building.
	1. Strong 2. Medium 3. Weak	1. Strong 2. Medium 3. Weak 4. Miscellaneous 5. Not applicable

11. For the purpose of early warning system and preparedness what kind of activities can be useful so as to build up resilience capability at the local/community level and who should be responsible to carry out those functions?

S N	Resilience building related activities	Responsible
6.		
7.		
8.		
9.		
10.		

12. Do the business community and local residents learn important lessons for disaster management for the future?

- (a) Yes and applied
- (b) Yes but not applied
- (c) No learning

13. Additional suggestions about building resilience in tourism sector.

- 1.
- 2.
- 3.
- 4.
- 5.

Thank you.

Annex II

Comparative Outlook of Two Tourism Resorts

S N	Subject of comparison	The Last Resort	The Borderland
1	Year of establishment	1999 AD	1997 AD
2	Venue	Sindhupalchok, Nayapul	Sindhupalchok,
3	Type of establishment	Tourist resort	Tourist resort
4	Major tourism activities run by the resort	<ul style="list-style-type: none">) Resort for accommodation, entertainment) Bungy jumping) Swinging) Canyoning) High rope (now not in operation)) Rafting (jointly operated with ultimate river in down section of Bhotekoshi) 	<ul style="list-style-type: none">) Resort for accommodation and entertainment) Rock climbing) Canyoning) Trekking) Rafting (it is shifted downstream after Bhotekoshi flood)) Hiking) Professional courses of hospitality management
5	Tourism performance in normal time	<ul style="list-style-type: none">) number of tourists per month 600) 2100000 	<ul style="list-style-type: none">) number of tourists per month 500) Income 1750000
6	Other additional activities	Joint collaboration for tourism activities Professional courses Community supports	Joint collaboration for tourism activities Professional courses Community supports
7	Type of problems related to natural disaster	<ul style="list-style-type: none">) Negative effects from the events like Jure landslide, earthquake and Bhotekoshi 	<ul style="list-style-type: none">) Except 3 major natural disasters one big rock slid down from Bhotekoshi

		flood	Hydropower construction site and 4 tent houses of the resort.
9	Time taken to come back to the business	After Jure Landslide=3 months After earthquake=6 months After Bhotekoshi flood=4 months	After Jure Landslide=3 months After earthquake=12 months After Bhotekoshi flood=1 months
10	To do activities and responsible for Preparedness	1. Sustainable infrastructure (Government) 2. Compliance with the code/standards (Business owner) 3. Awareness raising (NGO's, CBO's and clubs)	1. Facilities like road, electricity and its maintenance (Government) 2. Awareness (Citizen) 3. Advocacy (NGO/CBO)
11	To do activities and responsible for rescue and relief	1. Rescue Team (Government security forces) 2. Stockpiling of essentials and medical support (Local responsible offices) 3. Keeping transportation running (Government)	1. Rescue Team (Local Administration with police) 2. Support taking and mobilization (Joint Team) 3. Opening of custom points and transit facilities (Government diplomacy)
12	To do activities and responsible for building back better	Have to co-work (government, business and supporters)	1. Smooth functioning of road transport (Government) 2. Confidence building to local residents (All stakeholders) 3. Enough fund for reconstruction works (Government with supporters)
13	What is actually initiated for the preparedness and mitigation of impact	<ul style="list-style-type: none">) Plantation) Insurance schemes) Support to neighboring VDCs 	<ul style="list-style-type: none">) River training) Support in School building construction (10 building are constructed in

		<ul style="list-style-type: none">) Good relation with communities 	<p>support from Namaste Nepal)</p> <ul style="list-style-type: none">) Employment opportunities to locals (80%)) Collaboration with "All Hands" for supports (35 countries are member on it)
14	Immediate effect and impact analysis from 3 major disaster events	<ul style="list-style-type: none">) All the 3 events have negative effects) Complete closure of the business from 3-6 months) During Jure landslide Resort had to call upon helicopter and rescue 20 tourists up to Kathmandu) Level of severity is 5 in all 3 events 	<ul style="list-style-type: none">) All the 3 events have negative effects) Complete closure of the business from 3-12 months. Afterwards of Bhotekoshi flood the resort didn't closed.) Level of severity is 5 for Jure and earthquake and 4 in case of Bhotekoshi flood
15	Temporary reduction of Tourists after disaster events even after operation	<ul style="list-style-type: none">) Jure: 15 percent) Earthquake: 30 percent) Bhotekoshi flood: 50 percent 	<ul style="list-style-type: none">) Reduction up to 50 percent even after the resort come into operation
16	Change in tourist arrival pattern	<ul style="list-style-type: none">) 70:30 changed into 30:70 	<ul style="list-style-type: none">) 70:30 changed into 30:70
17	Who supported for coming into operation and in what aspects?	<ul style="list-style-type: none">) Food item supports to the locals by resort groups) Bhotekoshi hydropower also did well in clearing the road) Operation of transit route at Tatopani not been possible) Road improvement is also not in priority 	<ul style="list-style-type: none">) Nepal army and other security forces release blocked water and made road access) Namaste Nepal distributed medicine, food grains and solar to the locals) Chinese team in the hydropower did well in

			<p>opening up the road</p> <p>) Smooth and quality road is not been made yet</p>
18	Which tourism event is not been recovered yet?	<p>) High ropes (60-70 m)</p>	<p>) Adventure activities are running partial</p>
19	Lessons learnt from 3 disaster events	<p>) Back up plan should be there to tackle post disaster situation</p> <p>) Spirit of collectivism</p> <p>) Simple but resistant shed is good</p>	<p>) Construction works at safe places</p> <p>) Only money is not enough</p> <p>) Internal tourism help in sustaining the business</p>
20	Activities for resilience building in order of their importance	<p>) Construction of suspension bridge in appropriate location</p> <p>) Economic supports to the communities</p> <p>) Remuneration to the teachers</p> <p>) Local enterprises in the roadside</p>	<p>) Use of solar system</p> <p>) Appropriate physical structures in use</p>
21	Who should be responsible for resilience building?	<p>) Infrastructure: Government</p> <p>) Awareness: Community/Government</p> <p>) Early warning: Local government/institutions</p> <p>) Coordination: All stakeholders</p>	<p>) Sirens: Supporting organizations</p> <p>) Instruments/tools in ready positions: Local offices</p> <p>) Youth force for rescue: Security forces</p> <p>) Awareness/knowledge: All citizens and NGO's and CBO's</p>
22	Post disaster support institutions in order of importance	<p>1. Local communities and CBO's</p> <p>2. Government agencies</p> <p>3. Other institutions</p>	<p>1. Local communities and CBO's</p> <p>2. Government agencies</p> <p>3. Other institutions</p>

			4. Aid agencies
23	Additional suggestions on resilience building	<ul style="list-style-type: none">) Citizen awareness for quality structure) Strong public sector management) Trust among stakeholders) Fund building 	<ul style="list-style-type: none">) Exact calculation/assessment of loss in the disaster events and provision of compensation.) Priority to building/maintaining infrastructure