

# **A STUDY ON HUMAN DEVELOPMENT IN SAARC**

(With reference to trend and pattern analysis of HDI of Nepal:1990-2013 AD.)

## **A Thesis**

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*By*

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## LETTER OF RECOMMENDATION

This thesis entitled **A STUDY ON HUMAN DEVELOPMENT IN SAARC (With reference to trend and pattern analysis of HDI of Nepal: 1990-2013)** is prepared by **Mr. Keshab Sharma** under my supervision and guidance for the partial fulfillment of the requirements for the degree of Master of Arts in Economics. Thus, I hereby recommend this thesis for final approval and acceptance.

.....  
Resham Bahadur Thapa  
Supervisor

## LETTER OF APPROVAL

This thesis entitled, **A STUDY ON HUMAN DEVELOPMENT IN SAARC (With reference to trend and pattern analysis of HDI of Nepal: 1990-2013)** submitted by **Mr. Keshab Sharma** has been examined. It has been declared successful for fulfillment of the academic requirements toward the completion of Master of Arts in Economics.

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## LIST OF ACRONYMS / ABBREVIATIONS

ALR	- Adult Literacy Rate
APP	- Agricultural Perspective Plan
CBS	- Central Bureau of Statistics
DRD	- Declaration on the Right to Development
EAP	- Economically Active Population
EINDEX	- Education Index
EFA	- Education for All
FDI	- Foreign Direct Investment
FLE	- Female Life Expectancy
GAD	- Gender and Development
GDPs	- Gross Domestic Products
GDPI	- Gross Domestic Product Index
GER	- Gross Enrollment Ratio
GIA	- Grants-in-Aid
GNP	- Gross National Product
HDI	- Human Development Index
HDRs	- Human Development Reports
HRD	- Human Resource Development
HMGN	- His Majesty's Government of Nepal
HNP	- Health, Nutrition and Population
HSEB	- Higher Secondary Board
ILO	- International Labor Organization
IMF	- International Monetary Fund
INGOs	- International Non-governmental Organizations
LSGA	- Local Self-governance Act

LEINDEX	- Life Expectancy Index
MDGs	- Millennium Development Goals
MOPE	- Ministry of Population and Environment
MOE	- Ministry of Education
MOES	- Ministry of Education and Sports
MOH	- Ministry of Health
MTEF	- Medium-Term Expenditure Framework
NGOs	- Non-governmental Organizations
NLSS	- Nepal Living Standards Survey
NER	- Net Enrollment Ratio
NPC	- National Planning Commission
PAF	- Poverty Alleviation Fund
PPP	- Purchasing Power Parity
PRSPs	- Poverty Reduction Strategy Papers
RHD	- Reading in Human Development
SAARC	- South Asian Association for Regional Cooperation
SAPs	- Structural Adjustment Policies
TU	- Tribhuvan University
UN	- United Nations
UNDP	- United Nations Development Program
UNESCO	- United Nations Educational, Scientific and Cultural Organization
VDC	Village Development Committee
WB	- World Bank
WHO	- World Health Organization

# CHAPTER 1

## INTRODUCTION

### 1.1 Background

People are the real wealth of Nation. The basic objective of development is to create an enabling environment for people to live long, healthy and creative lives which is only possible by raising Human Development. Thus Human Development is a challenging and exciting field of study in 21st century. Globally, human development has become a burning issue.

Human development concerns widening the range of choices for people to pursue-economic, social, cultural and political- by enhancing their capabilities to shape their lives as they wish and enabling them to live in dignity. Human development is reflected in a person's ability to lead a long and healthy life to obtain education and further knowledge to have control over key resources, to engage in productive employment of his or her choice and to participate effectively in the activities of community and the state. The first 'Human Development Report' was published by UNDP in 1990 with a view to judging human progress with respect to human capabilities. Human development index has been used to measure average achievement in basic human capabilities. It has mainly three components: life expectancy, literacy and per capita income. Some of common features of human development are as follows:

First, people are moved to center stage. Development is analyzed and understood in terms of people.

Second, human development is assumed to have two sides. One is formation of human capabilities- such as improved health, knowledge and skills. The other is the use people make of their acquired capabilities for productive purpose

Third, a careful distinction is maintained between ends and means. Economic growth is a means to an end, and the end is human development.

Fourth, the human development paradigm embraces all of society- not just the economy- political, social and cultural factors;

Fifth, it is recognized that people are both the means and the ends of development.

Equity, sustainability, productivity and empowerment are basic pillars of human development, which focuses not on deprivation, but on achievements enhancing human capabilities and enlarging their choices.

It is fair to say that the human development paradigm is the most holistic development model that exists today. It embraces every development issue, including economic growth, social investment, people's empowerment, provision of basic needs and social safety nets, political and cultural freedoms and all other aspects of people's lives. It is neither narrowly technocratic nor overly philosophical. It is a practical reflection of life itself.

The Human Resource in socio-economic development of the region has been recognized since the inception of SAARC. The leaders at the first SAARC summit in 1985 reaffirmed that their fundamental goal was to accelerate the process of economic and social development through the optimum utilization of human and material resources to promote the welfare and prosperity of people and to improve their quality of life.

## **1.2 Statement of the Problem**

The south Asian Association for Regional Cooperation (SAARC) was established when its character was formally approved on 8<sup>th</sup> December 1985 by the Head of States or Government of Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. The Islamic Republic of Afghanistan became 8<sup>th</sup> SAARC member after signing the joint Declaration during the 14<sup>th</sup> SAARC summit which was held in New Delhi in April 2007.

The Head of State or Government, during the Thirteen SAARC summit welcomed the observer status granted to SAARC by the United Nations General Assembly. They also welcomed and agreed in principle with the desire of the People's Republic of China and Japan to be associated as observers. The standing committee approved the requests from

the Republic of Korea, USA and the EU for being association with SAARC as observer and decided to invite them to 14<sup>th</sup> SAARC summit in New Delhi in April 2007.

SAARC consists of eight countries viz., Afghanistan, Bangladesh, Bhutan, India, Nepal and Pakistan in Indian Subcontinent and Maldives and Sri Lanka in Indian Ocean. SAARC was established to accelerate the process of economic and social development in member countries through joint action in the agreed area of cooperation. The agreed areas are Agriculture; Rural Development; Telecommunication; Meteorology; Health and Population Activities; Transport; postal services; science and Technology and sport Art and Culture.

The SAARC countries are of different size both geographically and population wise and have different resources endowment. They are the less developed countries of the world. SAARC is the first major step of a long journey towards the regional integration on the pattern of European Union. The increasing degree of regional cooperation among SAARC countries would prove to be of immense socio-economic and political importance to this region which is the ultimate aim and objective of SAARC. The leaders recognized at the forth summit in 1988 that HDR was one of the means of achieve the objectives of SAARC . in this context they welcomed the offer to host the SAARC Human Resources Development Centre in Islamabad. The center undertakes research, imparts training and disseminates information on HRD issue and advice member states on HRD relates policies and strategies.

Regional economic cooperation has been found to be an important engine of growth by developing countries all over the world. The economic development aimed at improving the welfare of the masses has been the major challenge facing these countries which makes integration between the countries. Countries of SAARC were aware about the national level effort to combat poverty and achieve overall human development. However, the process made so far as varied from country to country which shows great challenge to improve low human development indicator of misused and due to lack education and social consciousness SAARC is not able to achieve expected human development as time being concern. Although SAARC has pursuing planed development

states remains among the lowest in the world so to find out the problems this study is undertaken.

### **1.3 Objectives of the Study**

The main objective of this study is to observe the conditions of human development in SAARC. The specific objectives of this study are as follows.

- To examine the condition of human development in the SAARC countries.
- To analyze the trend, pattern and composition of the indicators of human development.
- To suggest policy recommendations to improve the condition of human development in SAARC region.

### **1.4 Significance of the Study**

In the present days, the investment is increasing rapidly for the human development through education, training, skill-oriented program, human development planning etc. The lacking behind the human development is due to the fact of economic backwardness of the country. So, the existence of problem prevails in Nepal, as like other developing countries that makes to undertake this study. This topic has been selected to find out the improvements..

There is great significance or scope of regional economics cooperation among SAARC countries as they share many common concern and are facing many problem of a similar nature. The regional cooperation among these countries would not only lead to rapid economic development but also strengthen their mutual relations. Normally, the economics system among SAARC countries is the same as that of mixed economy because conditions, it directly affects the human development. Before it affects the development process, it is necessary to improve the situation.

The significance of this study is vast. So, limiting it under the data available through various publication of Human Development Report, World Development Report SAARC Surveys, SAARC News, SAARC Journals etc. the human development is important concept in the absent of which economic development is quite difficult thus, this study tries to find out obstacles on the way of

development. This study will be highly fruitful to the academics, persons, researchers, institutions and organizations that take interest in this field. Not only this, it also helps to the decision takers and policy makers to understand the present situation of human development and further improvement to it. The concept of Human development emerge as an alternative to definition of development which focused on growth and believe that the purpose of the development is to enlarge all human choice, not just income. It incorporates every development issues including economic growth, social investment, people empowerment, provision of basic needs and social safety nets, political and cultural freedom and all aspects of people lives. Thus, the topic human development is selected.

## **1.5 Limitations of the Study**

The major limitations of this study are as follow:

- This is study is based on secondary data and no attempts are made to examine reliability of data.
- This study does not explain in detail about the human development indicators.
- Due to time and resource constraints, the study period spans between 1990 - 2013.

## **1.6 Organization of the Study**

The study has been organized in six chapters. The First Chapter deals with the Introduction of Human Development, Statements of the problem, Significance, objectives, Limitation and organization of the study. Second Chapter deals with Literature Review defining difference issue of HDR 1990 to 2013 and Review of various Nepalese study. Third Chapter offer Research Methodology which define Human Development Index and its three components and then sets in Hypothesis, Introduction of Model and Analysis procedure. Forth Chapter provides the data of three basic components of HDI and its trends. Fifth chapter analyze the method of Measurement of

HDI and relation between the components of Human Development. Finally, Six Chapter provides Summary, Conclusion and Recommendation.

## CHAPTER 2

### REVIEW OF LITERATURE

An attempt has been made to review the available resources related to human development in order to make this study more meaningful. This chapter covers review of some books related to human development, different issues of HDR and review of Nepalese study.

#### 2.1 Review of Books

Haq's *Reflections on Human Development* (1999) explores a new development paradigm whose central focus is human well being. It discusses development policies and strategies that link economic growth with human lives in various societies. Analyzing the evolution of a new human development index as a far more comprehensive measure of gross national product, the book offers a new vision of human security for the 21<sup>st</sup> century. According to him human development is not once, twice or thrice, but six times blessed.

First, and above all, it is an end in itself that needs no further justification;

Second, human development is a means to higher productivity. A well- nourished, healthy, educated, skilled, alert labor force is the important productive asset;

Third, it slows human reproduction by lowering the desired family size;

Fourth, human development is good for the physical environment. The poor are both a cause (though not as significant a cause as the rich) and the main victim of environmental degradation. Deforestation, desertification and soil-erosion decline when poverty declines;

Fifth, reduced poverty contributes to a healthy civil society increased democracy and greater social stability;

Sixth, human development has political appeal, for it may reduce civil disturbances and increase political stability, though this will depend on the relation

between aspirations and material improvements. If aspirations move too far ahead of material improvements, political instability may result.

Nepal: Reading in human development (2006)-The Nepal: Readings in human Development (RHD) makes an in-depth analysis of the theory and practice of human development in Nepal. Prepared under the aegis of the National Planning Commission (NPC) and United Nations Development Program (UNDP), the primary objective of the RHD is to provide a reference to support a course on human development to all the people who are interested.

Human development means positive growth and change in human well-being –collective and individual –in all its multiple dimensions: economic, social, political cultural and environmental. It is a complex phenomenon in terms of its many determinants and the numerous interactions among them. Human development focuses on people and their well being. It concerns expanding their choices to live full, creative lives in freedom and dignity. It therefore stresses expanding the capabilities of individuals and communities to enlarge their range of choices as they seek to fulfill their aspirations.

## **2.2 Review of Different Issues of HDR**

During the course of 1990s, not only political systems but economic structures were beginning to change all over the world. As a result, economic development started to define in terms of human development and new concept emerged that- “People must be at the centre of all developmental efforts.” At the same time UNDP started to produce an annual report on the human dimension of development. Now, we are going to analyze the different issues of HDR.

### **HDR-1990**

The central message of this Human Development Report is that the growth in national production (GDP) is absolutely necessary to meet all essential human objectives. It addresses as its main issue, the question of how economic growth translates- or fails to translate into human development in various societies. Some societies have achieved high

levels of human development at modest levels of per capita income. Other societies have failed to translate their comparatively high income levels and rapid economic growth into commensurate levels of human development.

The report discusses the meaning and measurement of human development proposing a new composite index. But its overall orientation is practical and pragmatic. It summarizes the record of human development over the last three decades and it analyses the experiences of 14 countries in managing economic growth in the interest of the broadest possible number of people. The annex to the Report presents a comprehensive, up to date set up of human development indicators for more than 130 countries, developing and developed. The main aim of this report is to analyze country experience to distill practical insights. Its purpose is to make relevant experiences available to all policy makers. The Report is accompanied by the human development indicators, which assemble all available social and human data for each country in a comparable form.

According to HDR 1990-“This Report is about people and about how development enlarges their choices. It is about more than GNP growth, more than income and wealth and more than productive commodities and accumulating capital. A person’s access to income may be one of the choices but it is not the sum total of human endeavor.”

According to HDR1990 HDI of Nepal is 0.273 which is very low index than other SAARC countries except Bhutan. According to this report Bhutan-0.236, Bangladesh-0.318, Pakistan-0.423, India-0.439, and Sri-Lanka-0.789. In the Human Development Report the countries are ranked in ascending order of their human development index where Nepal is at 117<sup>th</sup> position among 130 countries.

### **HDR-1991**

Improving on the technique of calculating HDI, the 1991 HDR deal with the question of financing investments for human development and the role of governments. The main theme was that all the developing countries have adequate resources to finance human development. What they lack is courage commitment and correct priority, human development can be financed by the restructuring of both the national budget and the

flow of the international aid in favors of human development, eliminating inefficiencies in the economy and by curtailing unnecessary public expenditures on defense security, “Prestige Projects” and too much loss bearing public enterprises in those areas, which better be handed over to the private sector.

HDR 1991 emphasized that government budget should allocated to the social priority areas such as basic and primary education, literacy and preventive health care, family planning and safe drinking water. It was recommended that at least 5 percent of national incomes should be allocated by government of developing countries and these areas more than double (in percentage terms) from what they are devoting at present. Similarly, donors should change at least 20 percent of their assistance to these priority areas- about three times from their present level (which is 6.5%) of total aid. Thus human development is financial through the world even with existing resources if they are not misused.

The report has focused on poverty, nutrition, health, education and gender. It also indicates the pitiable condition of Asian region. The report states-“In Asia as a whole one child in three suffers from mal-nutrition and nearly 100 millions people of them in two countries. In India and Bangladesh only 2/3rd of population has access to health services and clean water. Female life expectancy is low with a suitable number of women who would have lived if they had been born elsewhere. Asia remains one of the poorest regions of the world.

### **HDR-1992**

Each report focuses on one important theme. Earlier reports looked at human development at the national level and showed how national budgets could be redirected from military spending and prestige projects into priority areas of human development such as- basic health and primary education.

HDR 1992 has examined how global markets meet, or fail to meet, the needs of the world’s poorest people. It concludes that restricted or unequal access to global markets costs developing countries \$500 billion annually -10 times what they receive in foreign assistance. No wonder that the global income disparity has doubled during the

past three decades. The richest 20 percent of the world's population receive 150 times the income of the poorest 80 percent. The Report suggests a two pronged strategy to get out of this dilemma. First, making massive investment in their people and strengthening national technological capacity can enable some developing countries to acquire a strong competitive edge in international markets. Second, there should be basic international reforms.

This year report reviews human development in a global context. The Report examines the links between human development and the environment- and human development and global markets. It mainly concentrates on the international dimensions of human development and looks at how immigration policies, trade barriers and international dept contribute to the continuing disparity between rich and poor nations.

The report expands the concept of human development to include environment. It also explores methodologies for measuring political freedom. The global issues in this Report supplement first two reports which stressed that the real causes of poverty and human deprivation lie deep in the national policy actions of the developing countries. Improvements in external environments can help greatly but they can never substitute for domestic reforms. The report 1992 demonstrates that economic growth is vital: no society has in the long run been able to sustain the welfare of its people without continuous injections of economic growth. Economic growth is not the end of human development. It is one important means.

The central message of this report is that improvement in human development in developing countries occurs not only through increasing aid but through improving developing countries access to global markets. This would dramatically increase the capital flow from north to south and make the resources available to developing countries for urgently needed investment in their people. Far as report states to eliminate chronic dependency on primary commodities and aid, developing countries must invest heavily in the human capital necessary to move into the 21st century on an equal footing with the industrial countries. This report tries to show that income disparities have in recent year widened dramatically. In the context of SAARC, 1992 report has showed that Nepal has

placed 20<sup>th</sup> position from the below among the 160 countries. This is an improvement of five position compared to that of Human Development Report of previous.

## **HDR-1993**

Human Development Report 1993 has specially focused on the people's participation in all developmental efforts where participation defined that people are closely involved in the economic, social, cultural and political processes that affect their lives. People may in some cases have complete and direct control over these processes. In other cases, the control may be partial or indirect. The important thing is that people have constant access to decision making and power. Participation in this sense is an essential element of human development.

Since, participation requires increased influence and control; it also demands increased empowerment in economic, social and political terms. In economic terms, this means being able to engage freely in any economic activity. In social terms, it means being able to join fully in all forms of community life, without regard to religion, color, sex or race. And in political terms, it means the freedom to choose and change governance at every level from the presidential palace to the village council.

This year's report describes specific policy actions that can make markets more "people- friendly" and rescue economic growth from becoming "jobless growth." Next, the report examines the decentralization as a step towards people's greater access to decision making process. And it traces the recent explosive growth of NGOs and the role they are beginning to play in influencing national and international issues.

As in previous years, the report ranks all countries by the HDI and invites readers and those who use the HDI to comment on suggestions for its further improvement. An up dated set of human development indicators for 173 countries is the disaggregating of the HDI by various population groups. For instance, when the HDI is calculated separately for black and white populations in United States, white's rank 1st in the world and blacks rank number 31.

The report further observed that many old concepts must now be radically revised. Security should be reinterpreted as security for people, not security for land. Development must be woven around people not people around development and it should

empower individuals and groups rather than disempowered them. And development co-operation should focus directly on people, not just on nation states.

### **HDR-1994**

HDR 1994 has expounded a new concept of human security- one that focus on the security of people in their homes, in their jobs, in their communities and in their environment instead of security by arms at the borders. Such a concept of security binds together all people and all nations and it can be addressed only through sustainable development strategies, not through the acquisition of evermore powerful weapons. It attempts to discover early warning signals that can spur preventive diplomacy and preventive development in order to save a society from reacting a crisis point. It outlines a new design for developing co-operation in the post cold war era. And it suggests a concrete agenda for the consideration of the world summit for social development that is to meet in Copenhagen in March 1995.

Human security is a child who did not die, a disease that did not spread, a job that was not cut, an ethnic tension that did not explode in violence, a dissident who was not silenced. Human security is not a concern with weapons- it is not a concern with human life and dignity.

The report recommended for the social summit a 20:20 compact for the next 10 years (1995-2005) where by all nations pledge to ensure the basic human development levels for all their people and invest 20 percent of budget on human priority areas along with 30 percent of aid flow to these human concerns. Nepal has less than 10 percent of the budget of aid flow to basic education, primary and preventive health care and drinking water etc.

HDR 1994 also revealed the concept of sustainable human development. Sustainable human development is development that not only generates economic growth but it benefits equitably; that generates the environment rather than destroying it enlarging their choices and opportunities and providing for their participation in decision that affects their lives.

Central message of this report is that the world can never be at peace unless people have security in their daily lives, and there is a link between human development and human security. Thus without human security, it is quite difficult to raise human development in the countries.

### **HDR-1995**

HDR 1995 puts forward many of the gender disparities. It shows that women still constitute 70 percent of the world's poor and two-third of the world's total illiterates. They occupy only 14 percent of managerial and administrative jobs, 10 percent of parliamentary seats and 6 percent of cabinet positions. In many parts of the developing world, women do not have legal control over the land they farm. They often work longer hours than men, but much of their work remains unvalued, unrecognized and unappreciated. And the threat of violence stalks their lives from cradle to grave.

The central message of the report is clear: human development must be engendered. If development is meant to widen opportunities for all people, then continuing exclusion of women from many opportunities of life totally warps the process of development. It says that women are essential agents of political and economic change. As the report points out: "Investing in women's capabilities and empowering them to exercise their choices is not only valuable in itself but is also the surest way to contribute to economic growth and overall development." The Human Development Report has consistently defined the basic objective of development as enlarging people's choices. At the heart of this concept are three essential components:

Equality of opportunity for all people in society;

Sustainability of such opportunities from one generation to the next;

Empowerment of people so that they participate in and benefit from development processes.

According to this report, South Asia is only the region in the world in which in such countries as – Bangladesh, Maldives and Nepal female life expectancy is shorter

than male life expectancy. South Asia is home to more than 560 million poor; about 4.8 million children are out of primary school and 94 millions out of secondary school. Moving towards gender equality is not a technocratic goal, it is a political process. It requires a new way of thinking. The conclusion of this report is that “In no society do women enjoy the same opportunities as men.”

### **HDR-1996**

Human Development Report 1996 shows that the links between economic growth and human development have failed in too many countries, for too many people. It maintains that neither economic growth nor advances in human development are sustainable without the others. The Report argues that economic growth if not properly managed, can be jobless, voiceless, ruthless, rootless and futureless, and thus detrimental to human development. The quality of growth is therefore as important as its quantity- for poverty reduction, human development and sustainability.

The central message of Human Development Report 1996 is clear: there is no automatic link between economic growth and human development, but when these links are forged with policy and determination, they can be mutually reinforcing and economic growth will effectively and rapidly improve human development. Government policies are vitally important.

This report principally addresses to what countries can do for themselves. It makes important recommendations. All countries must strive to improve the nature and quality of their economic growth. In many countries the immediate needs also include increase in economic growth. Of course, policies must be tailored to national circumstances. The global community can, and must, also help countries affect their own strategies of sustainable human development.

HDR 1996 has also focused on the two things as given below:

The gap between rich and poor is alarmingly increasing not only among many nations but within nation also;

Economic growth is not the sole factor of economic development. The term ‘Economic Growth’ becomes meaningful when person is able to get productive and good job and able to increase health education and overall living standard from his earning. Economic development will be long term sustainability with higher human development indicators. Sustainability is set of guideline that economic growth and development must take place and maintain over time.

### **HDR- 1997**

Human Development Report 1997 has showed many of the countries committed themselves to the goal of eradicating poverty “as an ethical, social, political and moral imperative of human kind.” And recognized people centered development as the key to achieving it.

The most important message of this report is that poverty is no longer inevitable. The world has the material and natural resources, the know-how and the people to make a poverty free world a reality in less than a generation. This is not woolly idealism but a practical and achievable goal. Over the past three decades a dozen or more developing countries have shown that it is possible to eliminate absolute poverty. And most industrial countries had largely eradicated absolute poverty by the 1970s although some have slipped in the past decades

The report 1997 reviews the challenge to eradicate poverty from a human development perspective. It focuses not just on poverty of income but on poverty from a human development perspective- on poverty as a denial of choices and opportunities for living a tolerable life.

This report stressed poverty must be addressed in all its dimensions, not income alone and also recommends some strategies for poverty reduction as mentioned below:

- Everywhere the starting point is to empower women and men and to ensure their participation in decisions;
- Gender equality is essential for empowering women and for eradicating poverty;
- Sustained poverty reduction requires proper growth in all countries;

- Globalization offers great opportunities;
- Special international support is needed for special situation;
- In all these areas the state must provide an enabling environment for broad based political support and alliances for pro-poor policies and markets.

### **HDR-1998**

HDR 1998 examines the human development from the perspective of consumption. It concludes that despite a dramatic surge in consumption in many countries, all is not well: more than a billion people lack the opportunity to consume in ways that would allow them to meet their most basic needs.

The report contains a message of qualified optimism. Awareness of the damaging effects of consumption has been increasing and the momentum for consumption for human development is growing. Human development focuses on people. And it sees economic growth and higher consumption not as ends in themselves but as means to achieve human development.

World Consumption has expanded at an unprecedented pace over the 20<sup>th</sup> century, with private and public consumption expenditures reaching \$24 trillion in 1998, twice the level of 1975 and six times that of 1950. In 1900 real consumption expenditure was barely 1.5 trillion.

Consumption is clearly an essential means but the links are not automatic. Consumption clearly contributes to human development when it enlarges the capabilities and enriches the lives of people without adversely affecting the well being of others. It clearly contributes when it is as fair to future generations as it is to the present ones. And it clearly contributes when it encourages lively, creative individuals and communities.

The report concludes that the need is not so much for more consumption or for less, but for a different pattern of consumption- consumption for human development. It marshals environmental, developmental, technological and moral arguments to present a critique of consumption pattern that are inimical to human development, and an agenda

for action to create an enabling environment for sustainable consumption for human development. Later Transport, Postal Services, scientific and Technological cooperation sports, Art and Culture were important to increased Human Development indicator in the SAARC region.

### **HDR-1999**

This year's report marks the tenth anniversary of the HDR. Each year since being launched in 1990, the report has focused on different themes and introduced new concepts and approaches. But the central concern has always been people as the purpose of development, and their empowerment as participants in the development process. The report puts economic growth into perspective: it is a means- a very important one- to serve human ends but it is not an end in itself.

HDR 1999 comes down clearly in favor of the power of globalization to bring economic and social benefits to societies: the free flow of money and trade is matched by the liberating power of ideas and information driven by new technologies.

Global markets, global technology, global ideas and global solidarity can enrich the lives of people everywhere. The challenge is to ensure that the benefits are shared equitably and that this increasing interdependence works for people not just for profits. This report argues that globalization is not new, but that the present era of globalization, driven by competitive global markets, is outpacing the governance of markets and the repercussions on people.

The report recommends an agenda for action reforms of global governance to ensure greater equity, new regional approaches to collective action and negotiation and national and local policies to capture opportunities in the global market place and translate them more equitably in to human advance. In addition to the ranking of 174 countries on the Human Development Index this year's Report presents a new table on trends in human development from 1975 to 1997 for 79 countries.

There is great scope of regional economic cooperation among SAARC countries as they share many common concern and are facing many problems of a similar in nature. The regional cooperation among these countries would not only lead to rapid development but also strengthen their mutual relation.

### **HDR-2000**

Human Development Report 2000 looks at human rights as an part of development- and at development as a means to realizing human rights. It shows how human rights bring principles to the process of human development.

Human freedom is the common purpose and common motivation of human rights and human development. The movements for human rights and for human development have had distinct traditions and strategies. United in a broader alliance, each can bring new energy and strength to the other. In short, human development is essential for realizing human rights, and human rights are essential for full human development.

The 20<sup>th</sup> century's advances in human rights have been remarkable. But gross violations of rights, both loud and silent persist. This report explores the new right agenda for the 21<sup>st</sup> century and proposes bold new approaches to political and economic governance that deliver social justice. Stronger international action is called for, especially to support disadvantaged people and countries- and to offset growing global inequalities. This year's report also recommended seven key features which are needed for a broader approach to securing human rights.

### **HDR-2001**

HDR 2001 put forward a new partnership between technology and development. It is intended as the manifesto for that partnership. But it is also intended as a source of cautionary public policy advice to ensure that technology does not sweep development off its feet, but instead that the potential benefits of technology are rooted in a pro- poor

development strategy. All editions of HDR argued that technology is used to empower people, allowing them to harness technology to expand the choices in their daily lives.

Technology is not inherently good or bad the outcome depends on how it is used. This report is about how people can create and use technology to improve human lives, especially to reduce global poverty. It is also about forging new public policies to lead the revolutions in information and communications technology and bio-technology in the direction of human development.

HDR 2001 states that 20<sup>th</sup> century's unprecedented gains in advancing human development and eradicating poverty came largely from technological breakthroughs. This report looks specifically at how new technologies will affect developing countries and poor people.

Technological innovation affects human development in two ways

- It can directly enhance human capabilities;
- Technological innovation is a means to human development because of its impact on economic growth through the productivity gains it generates.

Thus, we come to conclude that technology has been at the heart of human progress since earliest times.

## **HDR-2002**

This report is about politics and human development. It is about how political power and institutions- formal and informal, national and international shape human progress. And it is about what it will take for countries to establish democratic governance systems that advance the human development of all people in a world where so many are left behind.

The report states that human development in its fullest sense requires democratic governance- with all people able to participate in the institutions and decision that shape their lives and all those who hold power held accountable for their actions. Achieving human development also depends on peace and personal security.

Human Development Report 2002: Deepening democracy in a fragmented world examines political participation as a dimension of human development. Human Development Report 2002 focuses on the following:

- Examines the challenges for democracies young and old of broadening participation and strengthening accountability- or risking democratic reversals;
- Calls for more democratic principles in global institutions and negotiations to prevent further fragmentation in the world;
- Argues that democratic governance of security focuses is the way to build capacity for peace;
- Transcends the conventional wisdom of good governance to propose a framework that is not only efficient and effective but also just equitable and conducive to human development;
- Surveys the main tools for measuring political and civil freedoms and their relationship to the report's HDI.
- Presents the 1st ever country by country ratings on progress towards the 'Millennium Development Goals'.

### **HDR-2003**

The Report has presented a simple idea about the 'Millennium Development Goals'. In September 2000 the world's leaders adopted the UN Millennium Declaration, committing their nations to stronger global efforts to reduce poverty, improve health and promote peace, human rights and environmental sustainability.

The Report explains, many of the solutions to hunger, disease, poverty and lack of education are well known. What is needed for efforts to be properly resourced, and for services to be distributed more fairly and efficiently? The vision of the Millennium Declaration- guided by basic values of freedom, equality, solidarity, tolerance, and respect for nature and shared responsibilities. They also mirror the fundamental

motivation for human rights. Thus, the Goals, human development and human rights share the same motivation.

HDR 2003 further stated that economic growth is necessary to meet the MDGs for two reasons:

- Economic growth directly reduces income poverty for many households, increasing their savings and freeing resources for investments in human development.
- Economic growth tends to increase government revenue.

The report concludes that developing countries must take the political and economic lead in reaching the goals and upholding commitments to democratic governance. But they are not alone in this effort. Poverty is the world's problem. Human Development is on the top priority area for all SAARC member states. The HDI is used to measure the performance of nations. As explained in the report the HDI varies from Norway 0.944 which is ranked as number one to Sierra Leone 0.275 which is ranked at number 175. The following ranking of HDI 2003 were reported for SAARC countries as Maldives- 0.751 (86), Sri Lanka- 0.730 (99), India- 0.590 (127), Bhutan- 0.511 (136), Bangladesh- 0.502 (139), Nepal- 0.499 (143) and Pakistan 0.499 (144). Among the SAARC member countries, the highest HDI was maintained by Maldives and ranked last by Pakistan.

#### **HDR-2004**

This report builds on that analysis by carefully examining and rejecting claims that cultural differences necessarily lead to social, economic and political conflict or that inherent cultural rights should supersede political and economic ones. Instead, it provides a powerful argument for finding ways to “delight in our differences” as Archbishop Desmond Tutu has put it. It also offers some concrete ideas on what it means in practice to build and manage the politics of identity and culture in a manner consistent with the bed rock principles of human development.

The overarching message of this report is to highlight the vast potential of building a more peaceful, prosperous world by bringing issues of culture to the main stream of development thinking and practice.

HDR 2004 has stated ‘Cultural Liberty in Today’s Diverse World’ and argues that people should be free to be who they are to choose their identities and to live accordingly. It further argues that the recognition of multiple and complementary identities- with individuals identifying themselves as citizens of a state as well as members of ethnic, religious and other cultural groups-is the cornerstone of cultural liberty

At the end, we came to conclude that in its 15<sup>th</sup> year the annual HDR continues to frame debates on the most pressing challenges- new and old – for enabling people to live full and creative lives.

## **HDR-2005**

HDR 2005 marks a crossroads. The world's governments face a choice. One option is to seize the moment and make 2005 the start of a "decade for development." If the investments and the policies needed to achieve the MDGs are put in place today, there is still time to deliver on the promise of the Millennium Declaration. But time is running out.

The report is about the scale of the challenge facing the world at the start of the 10 year countdown to 2015. Its focus is on what governments in rich countries can do keep their side of the global partnership bargain. This does not imply that governments in developing countries have no responsibility. No amount of international cooperation can compensate for the actions of governments, to respect human rights, to tackle inequality or to root out corruption. But without a renewed commitment to cooperation backed by practical action, the MDGs will be missed and the Millennium Declaration will be missed and the Millennium Declaration will go down in history as just one more empty promise.

The HDR 2005 takes stock of human development including process towards the MDGs. Looking beyond statistics; it highlights the human costs of missed targets and broken promises. Extreme inequality between countries and within countries is identified as one of the barriers to human development- and as a powerful brake on accelerated progress towards MDGs.

The Report mainly focuses on three pillar of international cooperation are as:

- A comprehensive overview of development in international developmental assistance. The report looks at the critical role of aid in supporting human development assesses the performance of individual donors and sets out an agenda for improving aid quality;
- A critical review of progress in the Doha "Development Round" of trade negotiations and an analysis of wider structural forces that marginalize many of the world's poorest countries. The report demonstrates how unfair trade rules reinforce an unequal pattern of globalization while emphasizing problems that go beyond the rules.

## **HDR 2006**

Human development is first and foremost about allowing people to lead a life that they value and enabling them to realize their potential as human being. Water for life in the household and water for livelihood through production are two of the foundation for human development. Access to water for life is basic human need and a fundamental human rights. At the start of the 21st century unclean water is the world's second biggest killer of the children. Overcoming the crisis in water and sanitation is one of the great human development challenges of the early 21st century. People need water as surely as they need oxygen: without it life could not exist, people need clean water to sustain their health and maintain their dignity. Delivering clean water wastewater and providing sanitation are three of the most basic foundations for human progress. The millennium Development Goals provide a benchmark for measuring progress towards the human right to water. Clean water and sanitation are among the most powerful drivers for human development. Poor people get less access to clean water and pay more for it. Ultimately, human development is about the realization of potential. Water pervades all aspects of human development.

## **HDR 2007/2008**

Human progress is neither automatic nor inevitable climate change is the defining human development issue of the generation. All development is ultimately about expanding human potential and enlarging human freedom. Across developing countries, million of world's poorest people are already being forced to cope with the impacts of climate change. Climate change will undermine international efforts to combat poverty. Seven years ago say in 1998, political leaders around the world gather to set target for accelerate progress in human development. How the world deals with climate change today will have a direct bearing on the human development prospects of large section of humanity.

The basic principle of equity and the human development imperative of expanding access to energy demand social justice and respect of human right demand for

human development. The battle against dangerous climate change is part of the fight for humanity. The climate shocks also erode long term opportunities for human development, undermining productivity and eroding human capabilities. High levels of poverty and low levels of human development units the capacity of poor house hold to manage climate risk. The problems of cutting meal, reducing spending on health and taking children out of school cause to low human development.

HDR 2007/08 identify five key transmission mechanism through which climate change could stall and then reverse human development.

- Agriculture production and food security
- Water stress and water insecurity.
- Rising sea levels and exposure to climate disasters.
- Ecosystem and biodiversity
- Human health.

None of these five separate diverse will operate in isolation. They will interact with wider social, economic and ecological process that shape opportunities for human development. Investment in social protection and wider human development strategies are needed to strengthen the capacity of vulnerable people to cope with risk. The rising economic prosperity will go hand in hand with mounting threats to human development today and the well being of future generations. The states of low human development is due to low income poverty, low nutrition, high child mortality, low health, etc.

According to HDR 2007/08, HDI of SAARC countries: Bangladesh – 0.547 (147), Bhutan – 0.579 (133), India – 0.619 (129), Maldives – 0.741 (100), Nepal – 0.534 (142), Pakistan – 0.551 (136) and Sri Lanka – 0.743 (99). The HDI value and rank are shown in which Human Development is seen as first Sri Lanka, second Maldives, third India, fourth Bhutan, fifth Pakistan, sixth Bangladesh and last seventh Nepal. Among the SAARC countries Sri Lanka lies top most followed by Maldives and Nepal lies on the bottom followed by Bangladesh in the case of Human Development. In the Human Development Report the countries are ranked in ascending order of human development index where Nepal lies 142<sup>nd</sup> among 177 countries, 14<sup>th</sup> from the bottom of Medium

Human Development among 85 countries. The HDI is gradually increasing year by year in the Nepal as it was 0.427 in 1990, 0.502 in 2000, 0.534 in 2005 and 0.534 in 2007/08.

### **HDR 2009**

Human Development Report 2009's main theme was Human Development on the move. This report revealed that Nepal has placed at 15<sup>th</sup> position from below among Medium Human Development countries and lies at 138<sup>th</sup> position from below out of 182 countries. According to HDR 2009, Nepal HDI is equal to 0.553 which is better than the previous year which was 0.534. Thus this showed that little progress in position of Human Development Index. This reports show significant progress by most countries in most areas, with the poorest countries often showing largest gain. Not all the trend are positive, as we know too well. Sadly several countries have moved backwards in absolute HDI achievement since 1990 Repots. Perhaps most important, the human development approach has profoundly affected and entire generation of policy makers and development specialist around the world. Nonetheless, the human development can be attained if individuals can strive to fulfill their right and their obligations as the citizens of the country works of buildings nations. All this can be happen only when society undergoes a decisive change towards inclusive and equitable human development that increases the range of choice for everyone.

For the Human development of any country, there should be focus on the equitable representation and participation of excluded groups and region will surely improve the quality of human development. The fact that unequal human development is both a cause and result of exclusion points to the need for a twofold strategy. First, ensuring the equitable representation of all groups in state structures. Second enabling citizen to participate effectively in decision making process concerning their development. The conflict also has a direct impact on the income dimension of human development by cutting employment opportunities.

### **HDR 2010**

People are the real wealth of Nation. Thus the objective of development should be create an enabling environment for people to enjoy long, healthy and creative lives

may appear self evident to emphasize that development is primarily and fundamentally about people. Human development is the explanation of people's freedom to live long, healthy and creative lives; to advance other goals they have reason to value and to engage actively in shaping development equitably and sustainably on a shared planet. People are both the beneficiaries and the drivers of human development, as individuals and in group. One of the most surprising results of human development research in recent years is the lack of a significant correlation between economic growth and improvements in health and education.

According to HDR 2007/08, HDI of SAARC countries: Bangladesh – 0.469 (129), Bhutan – (N.A), India – 0.519 (119), Maldives – 0.602 (107), Nepal – 0.428 (138), Pakistan – 0.490 (125) and Sri Lanka – 0.658 (91). Putting at the centre of development is much more than an intellectual exercise. It means making progress equitable and broad-based, enabling people to be active participants in change ensuring that current achievements are not attained at the expense of future generations. Meeting these challenges is not only possible- it is necessary. And it is more urgent.

### **HDR 2011**

Sustainability and Equality : A better future for all is the main theme of HDR 2011. There should be good environment to promote equality and human development. Pursuing sustainability and equity jointly does not require that they be mutually reinforcing. The report offers important new contributions to the global dialogue on climate challenge, fairness and social justice and of greater access to a better quality of life financing flows need to be channeled towards the critical challenge of unsustainability and inequality.

Human development, which is about expanding people's choices, builds on shared natural resources. Promoting human development requires addressing sustainability locally, national and globally and this should be done in ways that are equitable and employment. The Human Development emphasis how equality,

employment and sustainability expand people's choice. Freedom and capabilities are more expansive notion than basic needs. Disadvantaged people are a central focus of human development. Sustainable human development is the expansion of the substantive freedom of people today while making reasonable effort to avoid seriously compromising these of future generation.

In sum, it is possible to identify countries that have promoted sustainable and equitable human development through a higher HDI. According to HDR 2011, HDI value and rank of SAARC countries: Afghanistan – 0.398 (172) Bangladesh – 0.500 (146), Bhutan – 0.522 (141), India – 0.547 (134), Maldives – 0.661 (109), Nepal – 0.458 (157), Pakistan – 0.504 (145) and Sri Lanka – 0.691 (97). The overall HDI of South Asia is 0.548 in which Sri-Lanka is place in the top and Afghanistan is place in lower among the SAARC Countries.

### **HDR 2013**

Human Development Report 2013 especially focus The Rise of the South : Human Progress in a Diverse World. Over the last decade, all countries accelerated their achievement in the education, health and income dimensions as measured in the Human Development Index (HDI)- to the extent that no country for which data was available had a lower HDI value in 2012 than in 2000. As faster progress was recorded in lower HDI countries during this period, there was notable convergence in HDI values globally, although progress was even thin and between region. The progress being made, the challenges arising and opportunities emerging for representative global and regional governance.

Looking specially at countries which lifted there HDI value substantially between 1990 and 2012 and both the income and non-income dimensions of human development, the report examines the strategies which enable them to perform well. In this respect, the 2013 report makes a significant contribution to development thinking by describing specific drivers of human development transformation. A key message contained in this and previous Human Development Report, as that economic growth alone does not automatically translate into human development

progress. There should be parallel enhancement in economic development and human development for sustainable human development indicators.

The 2013 report identified four specific area of focus for sustaining development momentum:

- ❖ Enhancing equity,
- ❖ Participation of citizens,
- ❖ Confronting environment pressure, and
- ❖ Demographic change.

Many Countries across the south have seen rapid development, and their experiences and South- South Cooperation are equally in inspiration to development policy. One of the most heartening developments in recent years has been the broad progress in human development of many developing countries and their emergence into the global stage: the rise of the south. This growing diversity in voice and power is challenging the principles that have guided policy makers and driven the major post-second World War institutions. Stronger voices from the south are demanding more representative frameworks of international governance that embody the principles of democracy and equity. Although most developing countries have done well, a large number of countries have done particularly well-in what can be called the “rise of the south”.

According to HDR 2013, HDI value and rank of SAARC countries: Afghanistan – 0.373 (174) Bangladesh – 0.515 (146), Bhutan – 0.538 (140), India – 0.554 (136), Maldives – 0.688 (104), Nepal – 0.463 (157), Pakistan – 0.515 (146) and Sri Lanka – 0.715 (92). Some of the largest countries have made rapid advances, notably Brazil, China, India, Indonesia, South Africa and Turkey. But there has also been substantial progress in smaller economies such as Bangladesh, Chile, Ghana, Mauritius, Ruanda and Tunisia. By 2050, Brazil, China and India combined are projected to account for 40% of world output in purchasing power parity terms. During these uncertain times, countries of the south are collectively bolstering world economics, reducing poverty and increasing

wealth on a grand scale. The changing global economy is creating unprecedented challenges and opportunities for continued progress in human development. Investment in Human Development improved health, education and social welfare which are key to success in a more competitive and dynamic world economy.

### **Human Development in South Asia 2001**

The Mahbub-Ul-Haq Human Development Centre Published Human Development in South Asia focusing to gain from globalization developing countries must accelerate their human development, improvement governance and invest in infrastructure. If globalization is properly managed then it help to achieve goals of sustainable development and poverty reduction. Even where economic growth rate has gone up, human welfare in term of education, health or employment may not have improved. Nepal's growth rate at 3.6 percent annum has been lower than that of Bangladesh but it has shown a slight acceleration over its own growth rate of the previous decade. Despite increased FDI flow to Sri Lanka and India, south Asia has not been a preferred region for attraction major FDI flows. Regional conflict and weak reform effort probably explain the sluggish inflow of foreign capital to south Asia.

Macro instability has been a more concern in south Asia. All countries have experienced high fiscal deficit as a proportion of GDP. Limited revenue mobilization and lack of expenditure control have been the major cause of continuing high fiscal deficit. Balancing external accounts is crucial for stability as well as to build capacity to continue implementing the reform program, trade and current account balance have remained negative for all south Asia countries during 1990s. India's position has been the most relatively more comfortable and Nepal's has been the most difficult one through out the decade.

The impact of reform on Human Development in south Asia has been mixed. The rates of unemployment or under employment remain high. In India and other south Asian countries, the earlier progress in poverty reduction has been halted in the 1990s. The theme of the Report on Human Development in South Asia 1997 is the Challenge of Human Development and HDSA 2001 is Globalization and Human Development. The

setback to growth and human development in the 1990s is a matter of serious concern, however the prospects of rapid improvement in human well-being are bright. Peace in the region and cessation of internal strife could make South Asia an attractive region for human development.

## **2.3 Review of SAARC Summit**

The highest authority of the Association rest with the Head of the State or Government. During the period 1985-2013, seventeenth SAARC summit has been held, a summary of which chronologically briefing below.

### **First SAARC Summit, 7-8 December, Dhaka**

The SAARC summit Declaration of the Head of State or Government of South Asia Association for Regional Cooperation (SAARC) remain the permanent policy document for collective action by member state of the association. Each declaration reflect the political commitment of member countries to the promotion of peace, stability, amity and progress in the region, assesses regional and international development affecting the mender states and review at SAARC programs.

The first SAARC summit on 7-8 December 1985 conclude by adopting the Dhaka Declaration. The head of the state or Government to watch terrorism and the problem of drug trafficking and abuse which affects the security and stability of member states of SAARC.

### **Second SAARC Summit, 16-17 November, Bangalore.**

The second SAARC summit focused on promoting peace, stability, amity and progress through strict adherence to the principle of the United Nation Charters and Non-Alignment principle. They stress that mutual trust, good will and understanding must animate their cooperative effort under SAARC. The principle of SAARC was to promote welfare of the people of South Asia, to improve their quality of life, to accelerate economics growth social program and cultural development in the region to provide all individual the opportunity to live in dignity and to realize their full potential.

The cooperation among SAARC states was vital if terrorism was to be prevented and eliminated from the region not only that to strengthening international peace, promoting development, establishing equitable and just economic relation and strengthening international cooperation in all field. They emphasized on people to people

contact and students, scholars and researcher countries having ready access to reliable and up to date information on technical, scientific and development matters.

### **Third SAARC Summit, 2-4 November 1987, Kathmandu**

The Head of State or Government met at third South Asia Association for Regional Cooperation (SAARC) summit in Kathmandu on 2<sup>nd</sup> to 4<sup>th</sup> November 1987. The third SAARC meeting was marked by warmth cordiality and mutual understanding. This summit concluded with SAARC regional convention on suppression of Terrorism and the Agreement establishing south Asian hunger from the region. They emphasized the need for strengthening inter-government effort with increased people to people cooperation and called for greater participation of the Non-Government Organization (NGO). All the member countries representatives accept to established SAARC secretariat in Kathmandu, capital city of Nepal. Meeting for the first time in Kathmandu, the member of the SAARC countries express their keen determination to make strong regional cooperation to maximize the supporting and helping role to enhanced economic development of member countries. The leaders of the member countries agreed to builds up all necessary basic infrastructure to developed tourism and maintain security in the region.

### **Fourth SAARC summit, 29-31 December 1988, Islamabad.**

The fourth SAARC summit concluded determining to cooperate in promoting the welfare of the people of south Asia and to improving for their quality of life by eradicating poverty, hunger, disease, literacy, unemployment and environment degradation. The head of state and Government decided to declare the year 1989 as “SAARC year for Combating Drug Abuse and Drug Trafficking”

The representatives of SAARC agreed to supplement national. Bilateral, regional and global effort to deal with the increasing serious problem being faced by the region and emphasized Human Resource Development especially in literacy and health spheres. They were conscious of the fact that all South Asian countries faced problems in varying

planning and environmental protection as well as establishment of Human Resources Development in Islamabad, Pakistan and SAARC agriculture information (SAIC) at Dhaka, the head of Government agreed to launch “SAARC- 2000 : A Basic Need Perspective”.

### **Fifth SAARC summit, 21-23 November 1990, Male.**

The head of State or Government retreated that cooperation among the countries of South Asia was necessary for improving the quality of life of the people of the region and stress to promote peace, stability amity and progress in the region though strict adherence to the principle of the United Nation Charter and Non-Alignment Movement, particularly respect for the principle of the sovereign equality, territorial integrity national independence non use of force, non-interference in the internal affairs of other states and peaceful settlement of disputes not only that imperative need for providing a better habits to the people of South Asia through optimum utilization of indigenous technology, know how and material. They decided to observed 1991 as the “SAARC year shelter”.

### **Sixth SAARC summit 21 December 1991, Colombo.**

The head of State or Government reaffirmed their commitment to the principles and objectives enshrined in the charter of SAARC. They resolved to promote regional cooperation and spirit of mutual accommodation for the benefit of their people, with full respect for the principles of non use of force, the peaceful settlement of disputes and non-interference in each other’s internal affairs. They also retread their commitment to the principles of the united states charter and the non-alignment movement. It helps in international development relation deeply affecting the prospects for the economies of the seven SAARC countries. They also exchanged views on the priorities of their respective national economies and assessed current international development in the political share particularly those that affected the lives of the people of south Asia. All member states agreed the protection and prevention of the environment and the equitable and sustainable alleviation of poverty, the suppression of terrorism, drug trafficking and other international crisis, they decided to establish an independent South Asia Commission on

Poverty alleviation. They declared to work towards global objectives of shelter for all by the year 2000". At the last but not least they emphasized on organized study tour, workshop and seminar proposed in the identified area of cooperation to increase participation of the people of South Asia in the process of regional cooperation.

### **Seventh SAARC summit 10-11 April 1993, Dhaka**

The head of State or Government of member countries of the SAARC met at Dhaka, Bangladesh on 10-11 April 1993. They felt that time was now opportune for SAARC to provide a further dynamic impetus to activities in the core area of economics, social and cultural cooperation on the SAARC region. Integrated program of action (IPA) related SAARC activities feels needed to ensure tangible benefit for the people of South Asia. They pledge to overcome this challenge through the implementation of appropriate pro-poor development strategies at macro or micro levels. They made agreement on SAARC Preferential Trading Agreement (SAPTA). They expressed their deep satisfaction over the signing of the framework Agreement.

The cooperation on trade helps to promote sustained growth and development to prevent the marginalization of South Asia's Trade interest in the large global context. Stressing that the youth of the South Asia constituted a vital resource for nation development agreed to designate 1994 as the "SAARC year of the Youth" the leader expressed the hope that the recent recognition of the SAARC Chamber of Commerce and Industry would contribute positively to enhance cooperation in the crucial areas of trade and economic relation.

The head of State or Government underscored that international cooperation for development and eradication of poverty were inextricably linked with the preservation of international peace and security. They emphasized on the need for external finance to facilitate implementation of economic reform programs strengthening the policies and cooperative actions of the member states in response to challenge of the 1990's and beyond in areas where SAARC has a distinct contribution to make. They also reiterated once again their determination to strengthen and enrich SAARC as an instrument-endowing it with a clear set of forward looking goals and objectives as well as all

requisite institutional capabilities so that it can Continue to work enrich not only the lives of its own member but also promote peace, progress and stability in south Asia in a large context.

### **Eight SAARC summit, 2-4 May 1995, New Delhi.**

The Head of State or Government met at eight summit of South Asia Association for Regional Cooperation (SAARC) at new Delhi, India on 2-4 May 1995. they expressed their satisfaction on the achievement of the first Decade of SAARC and endorsed the proposal on “SAARC – Vision for the Second Decade” to identify the area on which SAARC should focus in its second decade. They reaffirmed their resolve to integrity regional cooperation in order to accelerate the process of promoting the welfare and improving the quality of life of the people of South Asia. They decided to declare 1995 as the “SAARC year of Poverty Eradication”

The representatives of member countries reaffirmed their commitment to work for guaranteeing the realization of rights of all in particular those of the poor, to food, work, shelter, health, education, resources and information. The head of state or government noted that literacy is one of the major caused of poverty, backwardness and social injustices and they decided to observed 1996 as the “SAARC year of Literacy”. They expressed their strong commitment to the promotion and protection of Human Right and endorsed the establishment of a three window SAARC Asian Development Fund with the merger of SAARC Fund for Regional Projects and SAARC regional found and a third window for south development and infrastructure development. They came to conclusion the WTO help to extent international trade, particularly that of developing countries. They also called for a reduction of trade barriers and promotion of expanded access to global markets. They also deep concern that economic growth in the least developed countries and landlocked countries is not satisfactory and emphasized the need to take special measure for accelerating the process of economics development in SAARC countries. The head of member country made a review of the SAARC activities aimed at

poverty alleviation and decided to reinvigorate them in the context of regional and global commitments to poverty reduction. The leaders agreed to facilitate and ensure the market access to product from the developed the developing, the least developed and the land locked countries.

### **Ninth SAARC Summit, 12-14 May 1997, Male.**

The Head of State or Government met at Ninth summit and reiterated their commitment to SAARC and resolve to accelerate regional cooperation in order to realized the aim and objectives of the association. They convinced that regional cooperation was indispensable in an interdependent world for the realization as the full potential at South Asian region.

The head of state or government reiterated their determination to reinforce the unity and cohesion of SAARC. They were convinced then an enable international environment to support poverty eradication effort of the SAARC countries is an essential elements in attaining success for those efforts. The lack of communication facilities amongst member states were a major hindrance to closer economic cooperation. The head of state or Government gives emphasis on Regional centre which play important role in harnessing the resources and capabilities within the SAARC region. Thus all member states takes decision to establish a Human Resource Development Center (HRDC) in Pakistan. They emphasized that housing was a basic right of all people and reiterated their determination to sustain effort to improve the condition of Human settlement in the region, with a view to achieving the global objectives of “shelter for all by the year 2000”. The current trend of globalization and liberalization were imposing a heavy burden on developing economies in particular, the least developed countries (LDCs) which are becoming marginalized from the mainstream of the economy. The current trend of globalization and liberalization were imposing a heavy burden on developing economies in particular, the least developed countries (LDCs) which are becoming marginalized from the mainstream of the economy.

### **Tenth SAARC Summit, 29-31 July 1998, Colombo**

The Head of state or Government noted that Human Resources Development is a key element in any poverty eradication program. They agreed to established the SAARC center for Human Resources Development in Islamabad, it could look into the possibility of its contributing to the strengthening of human resources development component of

the regional poverty eradication programs. The technological advance were making telecommunication an important medium for socio economic development and developing commercial and business relation as well as promotion of people to people contact. The effort were required for south Asia to effectively tap the economic potential afforded by the global tourist industry as well as to encourage intra- SAARC tourism. It needed to provide adequate opportunities to youth in South Asia to participate productively in national development and underscored the need for developing programs in this regards at the national and regional levels, they called for intensification of effort for promoting peace and stability at the global and regional level for realizing universal progress and prosperity.

### **Eleventh SAARC summit 4-6 January 2002, Kathmandu.**

The head of State or Government reaffirmed their commitment to regional cooperation through SAARC and underscored the importance of annual summit meeting in charting common strategies for the realization of the objectives and principle set out in the charter of the Association. Meeting for the first time at the dawn of the new millennium they solemnly renewed their implementation strategies in line with popular expectation. To give effect to the shared to the vision of a phased and planned process eventually leading to a south Asian Economic Union. The head of member country made agreement to make regional union in the context of regional and global commitments to poverty reduction. The leaders agreed to facilitate and ensure the market access to product from the developed the developing, the least developed and the land locked countries.

They expressed their determination to make full use of regional synergy to maximized the benefits of globalization and liberalization and to minimize their negative impacts on the region while recognizing that trade and economics expansion is closely interlinked the leader made a commitment to widen and deepen the scope of regional networks of activities in trade and financial matters. They appreciated the effort of SAARC chamber of commerce and industry (SCCI) to promote regional economic

cooperation in the spirit of public and private sector partnership. They also recognized the immense tourism potential of south Asia and decided to build infrastructure and linkage through joined effort.

### **Twelfth SAARC Summit, 4-6 January 2004, Islamabad**

The twelfth summit meeting of South Asian Association for Regional Cooperation (SAARC) was met in Islamabad, Pakistan on 4-6 January 2004 which was guided by the vision of a peaceful and prosperous south Asia and proud of its rich cultural and traditions. The leaders were deeply conscious of the growing interdependence increasingly globalization world. They focused to reinvigorate cooperation to realize peace, amity, progress and prosperity of all people of south Asia. The signing of all framework agreement on the south Asian Free Trade Area (SAFTA) is a milestone from satisfactory progress in SAARC Preferential Trading Arrangement (SAPTA). SAFTA is important towards broadening of economic cooperation and to ensure equitable distribution to benefits to trade. Another important commitment made at the 11<sup>th</sup> SAARC summit at Kathmandu for the creation of south Asian Economic Union. For accelerate and balanced economic growth it is essential to strengthen region. Investment in human resources is critical for future development of South Asia.

### **Thirteenth SAARC Summit, 12-13 November 2005, Dhaka.**

The leader of the nations noted that cooperation and partnership within the framework of SAARC is based on the second foundation of shared value, benefit and aspiration, they emphasized for the regions peace progress and stability. The main emphasis will be to secure a wider a economic space, so that benefits and opportunities offered their it can be shared by all and that true economic potential of south Asia can be fully realized. Effort will be made to create dynamic complementariness in the development of human resources and capacity of member states to address their common challenges. They decided to declare the decade of 2006-2015 as SAARC Decade of Poverty Alleviation. They agreed on SAFTA Agreement to be effected from 1 January 2006. the launching of SAFTA would mark an important milestone on the road to a South Asian Economic Union (SAEU). They reiterated the need to strengthen transportation and communication links the region for accelerate and balanced economic growth.

The Head of State or Government welcomed the request by the Islamic Republic of Afghanistan for membership and invited Afghanistan as a member and also welcomed

and agreed in principle with the desire of people's Republic of China and Japan to be associated as Observers. They agreed that SAARC complete its twenty years of its existence, it was an opportune occasion to drawn a roadmap for regional cooperation in south Asia for the next decade. Further they emphasize that while this would enable SAARC to realized is basic objectives of improving the quality of life of all south Asian peoples, it would at the same time create an enable environment towards the establishment of a South Asian Economic Union (SAEU).

### **Fourteenth SAARC Summit, April 3-4 2007, New Delhi.**

The fourteenth summit meeting of SAARC held in New Delhi, India on April 3-4, 2007. It was vital to first have better connectivity within South Asia and then with the rest of the world. The Leaders of nation recognized that the remarkable growth of the economies of SAARC countries has opened new opportunities to pursue the fight against poverty with firm resolve.

The main emphasis will be to secure a wider a economic space, so that benefits and opportunities offered their it can be shared by all and that true economic potential of south Asia can be fully realized. They agreed to implement collaboration project which will concrete and effective.

The SAARC Development Fund (SDF) is an important pillar that would be mobilized both from within and outside the region; they also acknowledge the need of expediting development of conventional sources of energy in sustainable manner and for strengthening renewable energy development such as in hydropower, bio-fuel, solar and wind. They also feel and stressed the need for closer regional cooperation in the field of information and communication technology. The SAARC Development Fund help to builds developmental infrastructure in the member countries of the region. They stressed the need for ensuring effective market access through smooth implementation of trade liberalization program and directed the SAFTA which must be successfully implementation for regional economic cooperation.

### **Fifteen SAARC Summit, August 2-3, 2008, Colombo.**

The Head of State or Government met at the fifteenth summit meeting of the South Asian Association for Regional Cooperation (SAARC) held in Colombo Sri Lanka on 2<sup>nd</sup> and 3<sup>rd</sup> August 2008. They renewed their resolve for collective regional effort to accelerate economic growth, social progress and cultural development of the people of south Asia and improve their quality of life, there by contributing to peace, stability amity and progress among the region. They feel necessary to increased accessed to energy for the growth development of south Asia. In this context, they recognized the need to expeditiously develop and conserve the conventional source of energy and to build up renewable alternative energy resources including indigenou, hydropower, solar, wind and bio while introducing energy reforms energy efficiency and the trade and sharing of technology and expertise. Tourism could afford to the economic development of the SAARC region. These efforts would include facilitating the movement of people through improvement travel infrastructure and air, sea and land connectivity among the SAARC countries, collaboration in Human Resources Development and the Promotion of SAARC as a Common destination though public-private partnership and joint campaign.

The South Asian Association for Regional Cooperation (SAARC) was launched with the primary objectives of promoting welfare of the people of South Asia and improving their quality of life through accelerated economic growth, social progress and cultural development in the region. The leaders of the member country stress that all necessary steps should be undertaken to in first round of all necessary infrastructure building for development of the country. They agreed that cooperation among member state should strengthened, both through sharing experience and in other practical ways, to enhance their capacity to deal with the population problems.

The Head of State or Government noted that while it was important to build peace and create condition of stability in the world, it was equally important to promote economic and social development. They enrich SAARC as instruments – endowing it with a clear set of forward looking goals and objectives to promote peace, progress and stability in the SAARC region.

## **Sixteenth SAARC Summit, 28-29 April 2010, Thimpu, Bhutan**

The head of State or Government met at sixteenth South Asia Association for Regional Cooperation (SAARC) summit at Thimpu, Bhutan on 28-29<sup>th</sup> April 2010. They focus on the development of international cooperation for Regional common security, business promotion, climate change. They declare 2010 -2020 as decade of international cooperation.

To strengthen inter-countries dynamic cooperation among SAARC countries to make linkage from Air, Land and Water ways. They feel necessary to increased accessed to energy for the growth development of south Asia. In this context, they recognized the need to expeditiously develop and conserve the conventional source of energy and to build up renewable alternative energy resources including indigenous, hydropower, solar, wind and bio while introducing energy reforms energy efficiency and the trade and sharing of technology and expertise. The head of state or government reiterated their determination to reinforce the unity and cohesion of SAARC. They were convinced then an enable international environment to support poverty eradication effort of the SAARC countries is an essential elements in attaining success for those efforts. The lack of communication facilities amongst member states were a major hindrance to closer economic cooperation. The head of state or Government gives emphasis on Regional center which play important role in harnessing the resources and capabilities within the SAARC region

Tourism could afford to the economic development of the SAARC region. These efforts would include facilitating the movement of people through improvement travel infrastructure and air, sea and land connectivity among the SAARC countries, collaboration in Human Resources Development and the Promotion of SAARC as a Common destination though public-private partnership and joint campaign. Trade and Tourism are the major priority areas of economic cooperation under SAARC. These countries here deprived themselves from the changes occurred on the global economic since cooperation between SAARC and UNDP has been particularly close in the area of

poverty eradication. The need of SAARC nation to get united and work together for human development.

## **Seventeenth SAARC Summit, 10-11 November 2011, Maldives**

The President of the Islamic Republic of Afghanistan, His Excellency Mr. Hamid Karzai; the Prime Minister of the people's Republic of Bangladesh, Her Excellency Sheikh Hasina; the Prime Minister of the Kingdom of Bhutan, His Excellency Lyonchhen Jigmi Yoeser Thinley; the Prime Minister of Republic of India, His Excellency Dr. Monmohan Singh; the President of Maldives, His Excellency Dr. Baburam Bhattarai; the Prime Minister of the Islamic Republic of Pakistan; His Excellency Syed Yusuf Raza Gilani and the President of the Democratic Socialist Republic of Sri-Lanka, His Excellency Mr. Mahendra Rajapaksa met in Addu city, the Maldives on 10-11<sup>th</sup> November 2011 for the seventeenth summit of the South Asian Association for Regional Cooperation (SAARC).

The Head of State or Government recognized the importance of bridging difference, creating better understanding and promoting amity and mutually beneficial and comprehensive cooperation in order to promote effective linkages and connectivity for greater movement of people, enhanced investment and trade in the region.

The head of State and government recognized the need to further strengthen the institutional mechanism of SAARC in order to bolster and enhanced regional cooperation. They feel the importance of the full implementation of SAFTA as a measure towards the creation of an enabling economic environment in the region. The observer of SAARC from the representatives of Australia, the people's republic of China , the Islamic Republic of Iran, Japan, the Republic of South Korea, Mauritius, the union of Myanmar, the United State of America and the European.

The economic system among SAARC countries is the same as that of mixed economy because of their under development characteristics and adoption of planning

process for the development. Thus, SAARC is working for economic development and unity in the region which directly help to promote human development in the region. Regional economic cooperation has been found to be an important engine of growth by developing countries all over the SAARC region.

## CHAPTER 3

### RESEARCH METHODOLOGY

In the present study, the research design is designed to analyze the condition of Human Development in Nepal and to examine the relationship between real GDP and Human Development Index. To that end, we have introduced and explained various statistical and econometric models. The ordinary least square methods have been used to estimate the models. To check the significance of results, different statistical tests like F-test, t-test,  $R^2$ , adjusted  $\bar{R}^2$  etc. have been used.

#### 3.1 Sources of Data

The present study is based on secondary data, which have collected from various bulletins, publications and official records. The data for the present study mainly comes from the various Publication of WDR, UNDP and SAARC daily, weekly, monthly publications/journals has used.

#### 3.2 Definition of variables used and its measurement.

##### 3.2.1 Human Development Index [HDI]

The Human Development Index is based on the three indicators: *Longevity*, as measured by life expectancy at birth; *educational attainment* as a measured by the combination of adult literacy rate and the combined gross primary, secondary and tertiary enrolment ratio; and *standard of living*, as measured by GDP per capita (PPP US\$). Here, HDI is taken as the dependent variable.

##### 3.2.2 Educational Attainment Index [EINDEX]

EINDEX is one of the important indexes used for calculating HDI. It can be calculated by the combination of adult literacy rate and mean years of schooling or gross primary, secondary and tertiary enrolment ratio. The combined primary, secondary and tertiary enrolment ratio was introduced in the 1994 HDR replacing the variable of mean years of schooling, mainly because the formula for calculating mean years of schooling is

complex and has enormous data requirements (UNDP, 1994). The formulas have been used to calculate adult literacy index and gross enrolment indexes:

$$\text{Adult Literacy Index} \square \frac{\text{Actual } x_i \text{ value} - \text{Minimum } x_i \text{ value}}{\text{Maximum } x_i \text{ value} - \text{Minimum } x_i \text{ value}}$$

Where,  $x_i$  refers to adult literacy.

$$\text{Combined enrolment Index} \square \frac{\text{Actual } x_i \text{ value} - \text{Minimum } x_i \text{ value}}{\text{Maximum } x_i \text{ value} - \text{Minimum } x_i \text{ value}}$$

Here,  $x_i$  represents combined enrolment.

### 3.2.3 Life Expectancy Index [LEINDEX]

LEINDEX is one of another index used to calculate HDI. In the context of Nepal, life expectancy at birth is calculated based on the reported number of children ever born and surviving using data of Nepal Demographic and Health Survey, The Population Census, Nepal Family Health Survey applying the direct as well indirect techniques. To calculate the LEINDEX following formula has been used.

$$LEINDEX \square \frac{\text{Actual } y_i \text{ value} - \text{Minimum } y_i \text{ value}}{\text{Maximum } y_i \text{ value} - \text{Minimum } y_i \text{ value}}$$

Here,  $y_i$  represents to life expectancy.

### 3.2.4 Real GDP per capita (PPP US \$) Index

Lack of an inappropriate information system, which forms a sound basis for GDP calculations, is a major challenge currently faced by the national accounts statisticians in Nepal. The CBS has so far been publishing GDP estimates only for national level. Population figures provided by CBS for 2001 have been used to obtain per capita GDP. Per capita GDP is then converted to PPP US \$ with the help of per capita GDP (NR). The following formula has been used to find out GDP index in logarithmic form.

$$GDPI \square \frac{\log(\text{Actual } z_i \text{ value} - \text{Minimum } z_i \text{ value})}{\log(\text{Maximum } z_i \text{ value} - \text{Minimum } z_i \text{ value})}$$

The above formula has been used to calculate GDPI.

Where,  $z_i$  represents to real GDP per capita (PPP US \$)

### 3.2.5 Real GDP

Real GDP is the value of domestic product in terms of constant prices from a base year. In our study, real GDP is treated as an independent variable. Thus real GDP affects the HDI.

### 3.3 Hypothesis

1.  $H_0A$ : There is no significant relationship between real GDP and HDI.

$H_1A$ : There is significant relationship between HDI and real GDP.

2.  $H_0B$ : There is no significant relationship between LEINDEX and real GDP.

$H_1B$ : There is significant relationship between LEINDEX and real GDP.

3.  $H_0C$ : There is no significant relationship between EINDEXT and real GDP

$H_1C$ : There is significant relationship between EINDEXT and real GDP.

### 3.4 Introduction of the Models

In order to examine the relationship between real GDP and HDI, real GDP and EINDEXT, real GDP and LEINDEX we have used the following functional form:

$$Y \square ax^b z^{b_1} u$$

This in double logarithmic form becomes.

$$[i] \ln Y \square a \square b \ln x \square b_1 \ln z \square u$$

Where, Y = Human development index

x = Real GDP.

$z = \text{GDP Index.}$

$a, b \text{ \& } b_1 = \text{constants.}$

$u = \text{error term.}$

We can use an alternative equation to show the relationship between real GDP and HDI where, lag in HDI is treated as an explanatory variable in this purpose the equations becomes:

$$[\text{ii}] \quad \ln HDI = a + b \ln realGDP + b_1 \ln HDI_{-1} + u$$

Where,

$\ln = \text{Natural logarithm.}$

$HDI_{-1} = \text{one year lag of HDI value.}$

The following forms of equation have been used to examine the effect on education and health.

$$[\text{iii}] \quad \ln LEINDEX = a + b \ln realGDP + b_1 \ln GDPI + u$$

$$[\text{iv}] \quad \ln EINDEX = a + b \ln realGDP + b_1 \ln GDPI + u$$

This study also demonstrates the relationship between education index and real GDP, and life expectancy index and real GDP on a logarithmic scale for the period 1989-2003. Where simple regression analysis is designed to estimate the functional relationship between the variables and thereby provides a mechanism for predication or forecasting.

The distributed lag model is used to describe a causal relation in which a change in the dependent variable can be explained by the lagged values of the explanatory variables. We also use the log linear model with dependent and independent variable in the logarithmic form. The distributed lag log linear models are also used for the assesses of the degree at which real GDP and GDPI impact on HDI.

Where,  $a$  and  $b = \text{Regression parameters.}$

$$b \text{ and } b_1 \square \frac{\text{proportionate change in HDI}}{\text{proportionate change in real GDP and GDPI}}$$

(This refers to models i, ii, and iii)

$$b \text{ and } b_1 \square \frac{\text{proportionate change in EINDEX}}{\text{proportionate change in GDP and GDPI}} \text{ (This refers to model iv)}$$

$$b \text{ and } b_1 \square \frac{\text{proportionate change in LEINDEX}}{\text{proportionate change in real GDP and GDPI}}$$

(This refers to model v)

### 3.5 Statistical Methodology

The ordinary Least Squares (OLS) method of regression have been applied for all the equations, it is worth while to mention brief theoretical concept about is. There exist two types of the variables in the regression model i.e. dependent and independent. So, the general linear regression model with k explanatory variable takes the following form.

$$Y \square a_0 \square \sum_{i=0}^K b_i x_i \square u$$

Where,

Y = dependent variables (regressed)

x = independent variables (regressor).

u = random variation or unexplained variation.

In the above equation parameters  $a_0$  and  $b_i$  are unknown and our aim is to estimate them. For the best estimation, ordinary least square method can be applied i.e. to minimize the sum of squares of deviation between actual value of individual observation and the estimated values of individual observation. The values of the parameters can be obtained by solving normal equations.



### 3.5.1 Variance and Covariance of Estimator

The Variance and Covariance of estimators can be written as:

$$\text{Var} \square \text{Cor}(\square) \square \square^2 \mathbf{A}^{-1}$$

Where,  $\sigma^2 \square \frac{u' u}{N \square K}$

Here,  $u$  = Column vector of regression residual

$N$  = Size of sample.

$K$  = Numbers of explanatory variables

### 3.5.2 Statistical Test of Significance of the Least Squares Estimates:

#### 3.5.2.1 The test of the Goodness of Fit ( $R^2$ )

The degree of relationship existing between dependent and independent variables is shown by the coefficient of determination ( $R^2$ ). Hence, in each case, the coefficient of determination ( $R^2$ ) has been calculated in order to test the explanatory power of independent variables.

After estimating the regression parameters,  $R^2$  is used for judging the explanatory power which measures the dispersion of observations around the regression line. It is essential, because the closer the observations to the line, the better explanation of the variable of  $Y$  by the change in the explanatory variables.  $R^2$  shows the percentage of the total variation of the dependent variable that can be explained by the independent variables of the multiple determinations and is the square of the correlation coefficient. The formula to derive  $R^2$  is mentioned below.

The Model with  $k$  explanatory variables

$$R^2 \square \frac{a_1 \sum yx_1 \square a_2 \sum yx_2 \square \dots \square a_n \sum yx_n}{\sum y^2}$$

Where,

$$y \square Y \square \bar{Y}, \quad x \square X \square \bar{X}$$

### 3.5.2.2 Adjusted Coefficient of Multiple determination ( $\bar{R}^2$ )

The value of the number in  $R^2$  increase with the additional of new explanatory variable that finally affects the precision of the result and decision made based on  $R^2$ . So, the adjusted  $R^2$  is calculated to overcome this problem.

$$\bar{R}^2 \square 1 \square \frac{\text{unexplained variation/d.f. for unexplained}}{\text{Total variation/d.p. for total variation}}$$

$$\bar{R}^2 \square 1 \square \frac{\sum u^2 / n \square K}{\sum y^2 / n \square 1} \square 1 \square (1 \square R^2) \frac{n \square 1}{n \square K}$$

$$\text{TSS} = \text{ESS} + \text{RSS}$$

Where,

$$\text{ESS} = \text{Residual sum of squares } (\sum u^2)$$

$$\text{RSS} = \text{Explained sum of squares } \left[ \sum \hat{y}^2 \right]$$

$$\text{TSS} = \text{Total sum of squares } \left[ \sum y^2 \right]$$

$n$  = number of observations,

$k$  = number of parameter.

### 3.5.2.3 Test of Significance of the Parameter Estimates

It is applied for judging the statistical reliability of the estimates of the regression coefficients. The following tests have been performed to test the hypothesis in the study.

#### 3.5.2.4 t-test

This test has been performed in order to identify the statistical significance of an observed sample regression coefficient and the formula for calculating the value is:

$$t = \frac{\hat{u}_i - u_i}{se(\hat{u}_i)}$$

Where,  $\hat{u}_i$  = estimated value of  $u_i$

$se(\hat{u}_i)$  = standard error of  $u_i$

$$se(\hat{u}_i) = \sqrt{\text{var } u_i}$$

The calculated t-values have been compared with tabulated t-values at a certain level of significance, for a given degree of freedom. If the calculated t exceeds the table value, it is inferred that estimated coefficient is significantly different from zero.

#### 3.5.2.5 F-test

F-test is used to examine the overall significance of the model. The formula for calculation is:

$$F = \frac{R^2 / K - 1}{(1 - R^2) / n - K}$$

Where,  $R^2$  = Coefficient of determination.

K = Number of explanatory variable.

n = Number of observations in the sample.

The calculated F-variance ratio is compared with the tabulated value at a specific level of significance with  $V_1 = (K-1)$  and  $V_2 = (n-K)$  degrees of freedom.

If  $F_{cal} < F_{tab}$ , we accept null hypothesis.

If  $F_{cal} > F_{tab}$ , we reject null hypothesis.

#### 3.5.2.6 Durbin Watson (D. W.) test

Durbin Watson Test is defined as a test for serially correlated (or auto correlated) residuals. One of the assumptions of regression analysis is that the residuals for a consecutive observation are uncorrelated. If this is true the expected value of D.W. statistics is 2, values less than 2 indicate positive autocorrelation, and values greater than 2 indicate negative auto correlation. The Statistic is computed as:

$$D.W. = \frac{\sum_{i=1}^n (u_i - u_{i-1})^2}{\sum_{i=1}^n u_i^2}$$

Where,  $u_i = Y_i - \hat{Y}_i$

### 3.6 Data Analysis Procedure

For data analysis, the simple calculation like percentage ratio, average value etc. is made with the use of ordinary calculator and for the estimation of ordinary least square method; 'SPSS 13.0' computer software program and MS EXCELL are used. The program is also used for the calculation of different statistical test as well.

## **CHAPTER - 4**

### **Basic Elements of HDI**

Basic elements of HDI include literacy, life expectancy and GDP. This chapter focuses on these three indicators, their trends and relationships with other indicators.

#### **4.1 Basic Elements**

##### **4.1.1 Life Expectancy**

###### **4.1.1.1 Life Expectancy at Birth**

Life expectancy at birth or longevity has been regarded as a sensitive index of the differences in the levels of social and economic well being among various population groups. Longevity is also one of the three components comprising “Human Development Index”.

Life expectancy at birth is a summary index of mortality at different ages. This indicates the number of years on the average a new born baby is expected to survive. The computation is accomplished through the construction of a life table, using the age specific death rates. Since, male and female mortality rates are usually different in different groups and age pattern, a separate life table is constructed and life expectancy at birth for the different groups, different ages and aggregate life expectancy at birth can be calculated.

When age specific death rates are not available, which is often the case in developing countries, we should identify a life table which best describes the country’s situation. Such identification is to be done by using age distribution of population at one or two points of time. Identification may also be done on the basis of infant and child or adult mortality estimated by indirect method.

#### 4.1.1.2 Trends of Life Expectancy at Birth in SAARC

Various reports have shown that life expectancy at birth for SAARC has increased steadily over the years, from 1990-2013 an average for both males and females in 1990 was 58 to 69.5 years in 2013. Thus, there has been an increase in life expectancy of approximately 1.16 years in every five years.

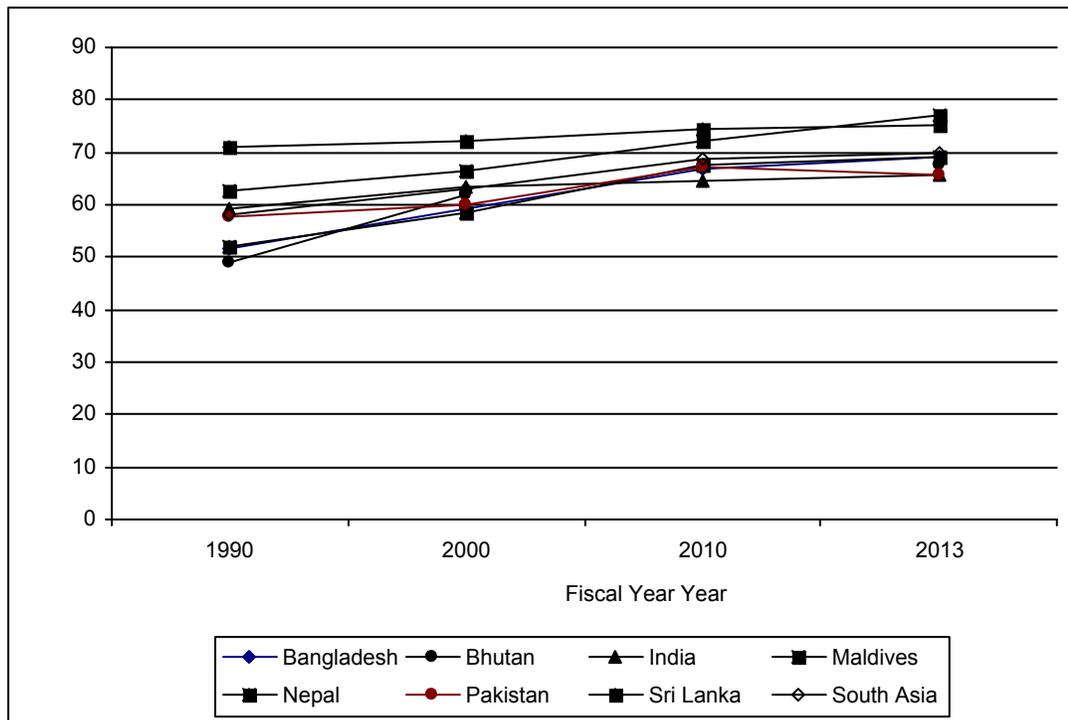
**Table. 4.1: Trend of Life Expectancy at Birth (Years) in SAARC countries.**

<b>Country\Years</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>	<b>2013</b>
Bangladesh	51.8	59.4	66.9	69.2
Bhutan	48.9	62.0	N.A	67.6
India	59.1	63.3	64.4	65.8
Maldives	62.5	66.5	72.3	77.1
Nepal	52.2	58.6	67.5	69.1
Pakistan	57.7	60.0	67.2	65.7
Sri Lanka	70.9	72.1	74.4	75.1
<b>South Asia</b>	<b>58</b>	<b>63</b>	<b>68.6</b>	<b>69.9</b>

Source: HDR 1990-2013

Before 1985's the life expectancy at birth was negligible and during the 1990's it was slightly more than 58 years. According to mentioned data expectation of life at birth for the Bhutan has reached 64.7 years from lowest among the SAARC countries. Such a significant change in the life expectancy is due to the improvement of health facilities & education that has reduced death rates, especially infant and child death rate during recent decade.

**Fig.4.1 Trend of Life Expectancy**



The figure revealed trend line of Life Expectancy of SAARC countries. The significant matter is that life expectancy at birth of male is higher than female. However, from 1954 to 1971, female life expectancy is little higher than male but from 1990 to 2013, data continuously shows that male's life expectancy is greater than female which is common feature of all south and sub-Saharan African countries.

However, due to various socio-economic causes life expectancy at birth has been increasing in the countries of SAARC. This table has revealed that the average life

expectancy of people has increased by 5.8 years from 1990 to 2013. However, the data varies with different reports published by different organization.

There is wide variation in life expectancy among Countries of SAARC. Countries wise has revealed that longevity ranges from a high of 70.9 years in Sri Lanka to a low of 48.9 years in Bhutan in 1990 changes over fifteen years as Sri Lanka to 71.6 and Nepal to 62.6. Thus, there is a whopping difference with the SAARC average of 63.8 years.

The table also suggested that several socio-economic development factors are positively associated with longevity. These factors are literacy, urbanization and utilization of public health services. People of Bhutan are less literate and having less public health facilities as compared to the people of Sri Lanka in 1990s. That is why Bhutan has less longevity than that of Sri Lanka. After 15 years Bhutan found above to India, Pakistan and Nepal in 2013. It would be assumed that Country with a higher percent of utilization of various public health services have significantly higher longevity and vice-versa.

## **4.1.2 Educational Status**

### **4.1.2.1 Introduction**

Education is the door of development. Education comprises knowledge and it has easily opened the door of opportunities. Without trained, healthy, skillful and well-educated manpower, country can not move forward in the path of development. Level of education is a measure of the living standard of people and it is also one of the main indicators of Human Development. This is why, in HDRs UNDP considered three key indicators for the measurement of human development. Education attainment ratio which is one of the indicators is measured by the combination of adult literacy and primary, secondary and tertiary enrollment ratio. In obtaining this ratio indicator, two-third weight has been assigned to adult literacy and one third to enrollment in primary, secondary and tertiary education.

Literacy may be defined as an ability to read and write with understanding. In common interpretation, literacy is knowledge of reading and writing. Generally, those who can read and write are called literates. A literate person is expected to be conversant with the three R's - reading, writing and arithmetic. Traditionally, for census taking purpose in most countries, the ability to read and write has been regarded as the minimal standard of literacy.

Now a day, literacy is interpreted in a wide and comprehensive sense. UNESCO came up with the concept of functional literacy and added qualitative approach in 1965. It defines a person to be functionally literate when s/he could read and write enough to be effective in the normal activities of life. It is difficult to measure the extent of knowledge and skills required to carry on daily responsibilities relating to work, and supporting one self and one's family. For census purpose, the ability to read and write and do simple computation is enough basis for categorizing a person as literate. Even this is difficult to measure precisely and census- takers have to rely on respondents to declare whether they are literate or not. It is not possible to test respondents about literacy in census operation.

#### **4.1.2.2 Literacy and Development**

Literacy is the most important single means of attaining socio- economic development and of opening for the individual the door to innovative ideas and actions. Literacy enhances access to information that may be necessary to conduct various essential activities in daily life and work. It enables a person to improve his knowledge base, acquire education informally and make progress in life. The resolution implies that illiteracy rate should be reduced drastically to meet the target endorsed by national and international authorities. 'The education for all' conference held in Jomtein, Thailand (1990) called for action by the participating countries to improve their respective literacy rate. Literacy may be defined as an ability to read and write with understanding. In common interpretation, literacy is knowledge of reading and writing. Generally, those who can read and write are called literates. A literate person is expected to be conversant with the three R's - reading, writing and arithmetic. Traditionally, for census taking

purpose in most countries, the ability to read and write has been regarded as the minimal standard of literacy

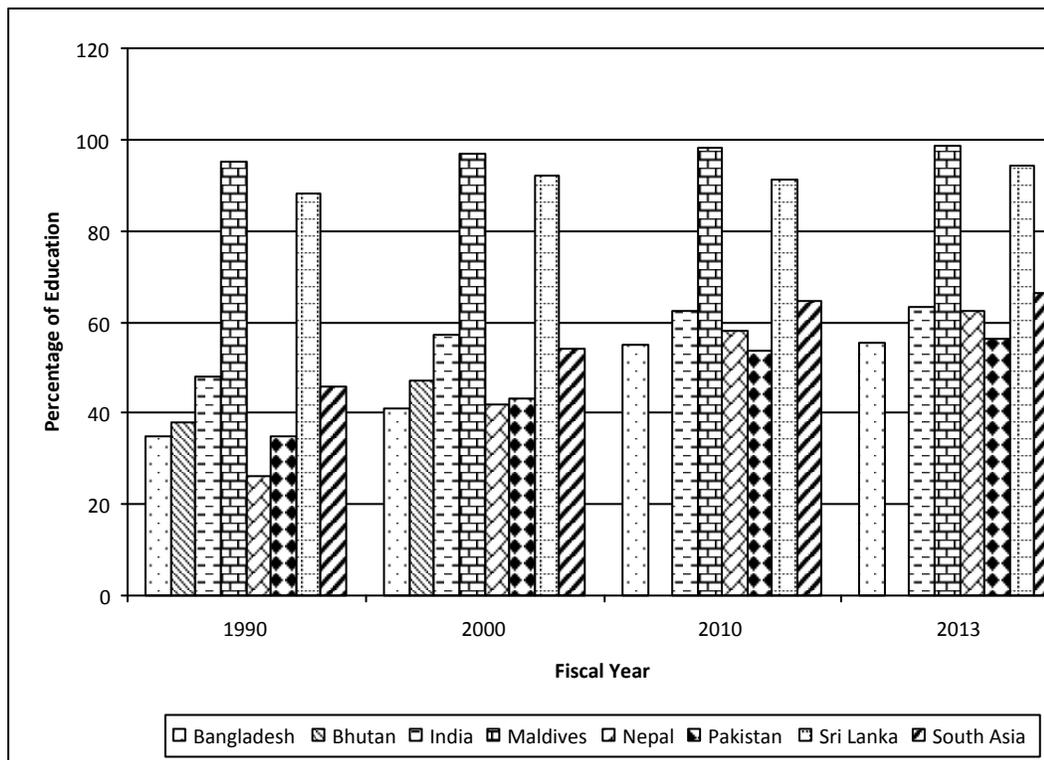
In the recent years, various steps are being taken in the SAARC region to raised literacy rate i.e. the expansion of free primary education, distribution of free textbooks and scholarships to the needed students. The lower literacy rate among females pulls poor in education cause obstacle in the development but now situation rapidly changes. Female have greater access to education and became a necessity for economic betterment. The male literacy rate has increased more than double and female literacy rate increased about tenfold.

**Table 4.2: Trend of Adult Literacy Rate in SAARC**

<b>Country\Years</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>	<b>2013</b>
Bangladesh	35	41	55	55.4
Bhutan	38	47	N.A	N.A
India	48	57	62.6	63.1
Maldives	95	97	98.4	98.5
Nepal	26	42	58	62.3
Pakistan	35	43	53.7	56.1
Sri Lanka	88	92	91	94.2
<b>South Asia</b>	<b>46</b>	<b>54</b>	<b>64.7</b>	<b>66.2</b>

Source: HDR 1990-2013

People around the world today have much higher levels of education than ever before- a result that holds across many different measure of education. Knowledge expands people's possibilities. Educated people are more aware of how to avoided health risk and to live longer and more comfortable lives. The trend of Adult literacy rate in the countries of SAARC is increase years by years. The average adult literacy rate in SAARC was 46% which was increase to nearly about 20% over the twenty years. To reached 64.7%. Nepal's trend of Adult Literacy rate among SAARC country is seen growing fast over previous two decades. The adult literacy rate of Nepal was about 26% in 1990 and it was increased about 62.3% in 2013.



**Fig.4.2 Trend of Educational Index of SAARC since 1990-2012**

The above figure shows the educational trend of SAARC countries since 1990 to 2013. The education index measures a country's relative achievement in both adult literacy and combined primary, secondary and tertiary gross enrolment. First, an index for adult literacy and one for combined gross enrolment are calculated. Then these two indices are

combined to create the education index, with two-thirds weight given to adult literacy and one-third weight to combined gross enrolment.

## **4.1.3 Gross Domestic Product in SAARC**

### **4.1.3.1 Introduction**

GDP is the most comprehensive measure of a nation's economic activity. Policymakers use GDP figures to monitor short run fluctuations in economic activity as well as long run growth trends. Gross domestic product is a measure of all currently produced final goods and services evaluated at market prices within the certain time framework. It has included product of both agricultural and industrial sector. If we divide total amount of Gross Domestic product by present total population we found GDP per Capita. This is why GDP per capita means share of per population in total GDP of nation.

GDP can be defined as the total for final use of output of goods and services produced by an economy, by both residents and non-residents regardless of all allocation to domestic and foreign claims within the certain periods of time. When the gross domestic product divided by a suitable price index to express it in real term is called real GDP.

GDP per capita is the main indicator of economic development. If the nation produced goods and services in large scale consequently share of per capita in GDP is expected to increase. Thus, GDP per capita is influenced by population growth rate. If population growth rate is higher than economic growth rate, country cannot move in the path of development properly. . If population growth rate is higher than economic growth rate, country cannot move in the path of development properly.

### **4.1.3.2 GDP Per Capita (Purchasing Power Parity)**

The GDP per capita of the country converted into U.S. dollars on the basis of the purchasing power parity of the country's currency. The system of purchasing power parities has been developed by the United Nations International Compassion Program (ICP) to make more accurate international comparisons of GDP and its components than those based on official exchange rates, which can be subject to considerable fluctuation.

Table shows the trends of GDP per capita (PPPUS \$) in SAARC for time period 1990-2013.

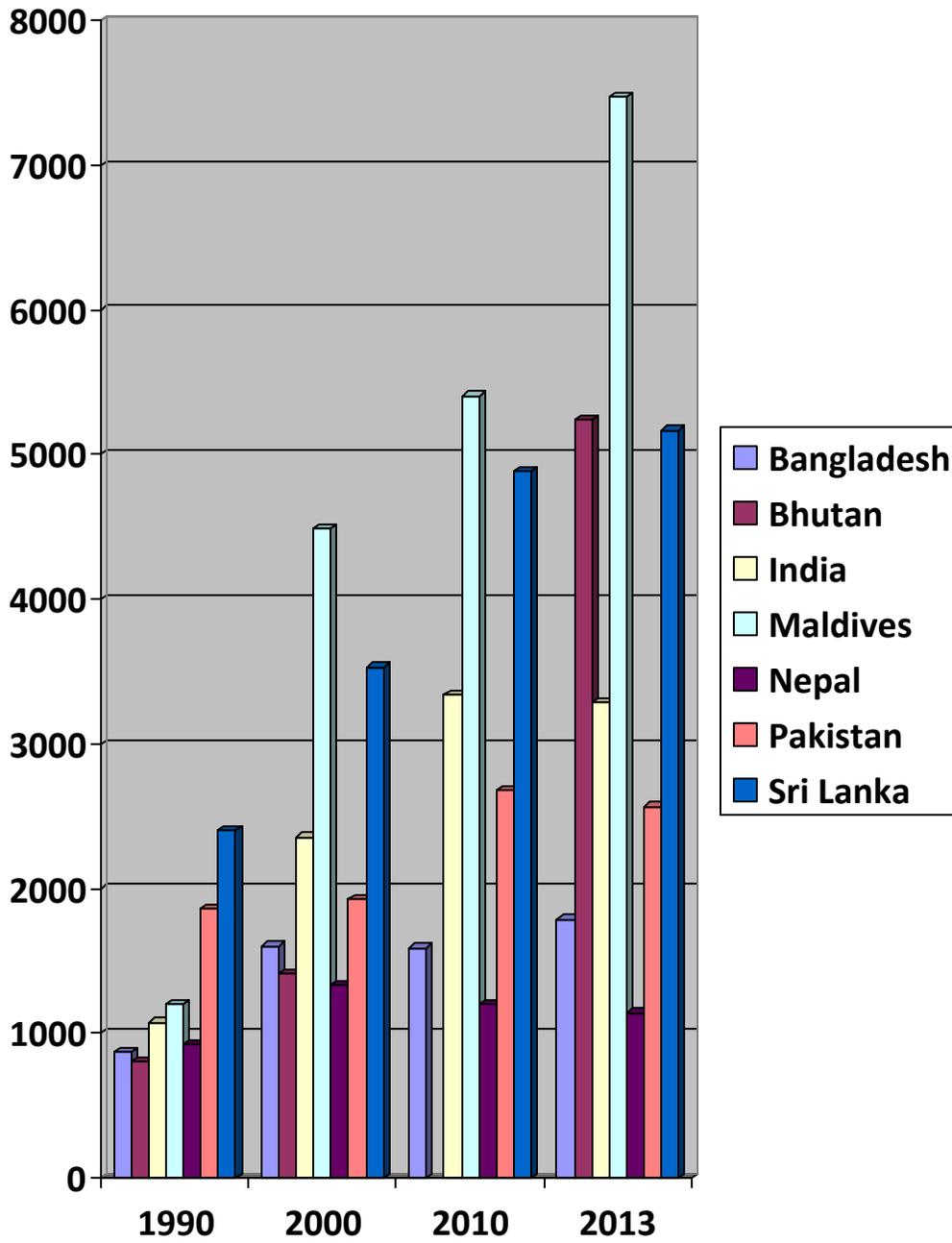
**Table 4.3: GDP per capita (PPP) of SAARC countries from 1990 to 2013.**

Country	1990	2000	2010	2013
<b>Bangladesh</b>	872	1602	1587	1785
<b>Bhutan</b>	800	1412	--	5246
<b>India</b>	1072	2353	3337	3285
<b>Maldives</b>	1200	4485	5408	7478
<b>Nepal</b>	920	1327	1201	1137
<b>Pakistan</b>	1862	1928	2678	2566
<b>Sri Lanka</b>	2405	3530	4886	5170

Source : HDR 1990-2013

The table shows the increase in per capita GDP during 15 years periods. In 1990, GDP per capita of Bhutan was 800 and it went up. In 1990 Nepal's GDP per capita was 920 just above to Bangladesh and Bhutan but in after fifteen years in 2005 Nepal was low among the member country of SAARC. In 1990 Sri Lanka was in top with GDP per capita 2405 whereas after 15years Maldives was in top with 5261 in 2005. Overall, we can see that per capita GDP slightly progressed.

The GDP per capita of the country converted into US dollar on the basis of purchasing power parity of the country's currency. The system of purchasing power parities has developed by the United Nation International Comparison Program (UN-ICP) to make more accurate international comparisons of GDP and its components than those based on official exchange rates, which can be subjected to considerable fluctuation. The table shows the GDP per capita (PPP) is continuously increasing from years to years. Similarly Life Expectancy and Literacy rate in 1990 is also increasing expected in 2010. The trend is positive association between real GDP and Life expectancy and Literacy rate index. According to HDR 2010, GDP per capita of Nepal is 1201 which is lowest among other SAARC countries although it was higher than Bangladesh and Bhutan in 1990. In the Human Development Report the countries are ranked in ascending order of their GDP per capita as Maldives, Sri Lanka, India, Pakistan, Bangladesh and then Nepal at the last.



**Fig.4.3: GDP per capita of SAARC countries (1990-2013)**

## 4.2. Trend of Human Development Indicators in SAARC Countries

### 4.2.1 : Trend of Life Expectancy Index in SAARC Countries

HDR years	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri-Lanka
<b>1990</b>	0.73	0.81	0.55	-	0.72	0.57	0.21
<b>1991</b>	-	-	-	-	-	-	-
<b>1992</b>	-	-	-	-	-	-	-
<b>1993</b>	-	-	-	-	-	-	-
<b>1994</b>	-	-	-	-	-	-	-
<b>1995</b>	0.51	0.43	0.59	0.62	0.48	0.61	0.78
<b>1996</b>	0.52	0.43	0.60	0.62	0.48	0.61	0.78
<b>1997</b>	0.52	0.44	0.60	0.63	0.51	0.62	0.79
<b>1998</b>	0.53	0.45	0.61	0.64	0.52	0.63	0.79
<b>1999</b>	0.55	0.60	0.63	0.66	0.54	0.65	0.80
<b>2000</b>	0.56	0.60	0.63	0.67	0.55	0.66	0.81
<b>2001</b>	0.57	0.61	0.63	0.68	0.55	0.58	0.78
<b>2002</b>	0.57	0.62	0.64	0.69	0.56	0.58	0.79
<b>2003</b>	0.59	0.62	0.64	0.70	0.57	0.59	0.79
<b>2004</b>	0.60	0.63	0.64	0.70	0.58	0.60	0.79
<b>2005</b>	0.63	0.63	0.69	0.69	0.61	0.63	0.82
<b>2006</b>	0.64	0.64	0.64	0.70	0.62	0.64	0.82
<b>2007/08</b>	0.635	0.622	0.645	0.701	0.626	0.659	0.776
<b>2009</b>	0.644	0.672	0.651	0.734	0.653	0.671	0.789
<b>2010</b>	0.648	0.671	0.674	0.746	0.675	0.674	0.798
<b>2011</b>	0.689	0.672	0.654	0.768	0.688	0.657	0.749
<b>2013</b>	0.692	0.676	0.658	0.771	0.691	0.654	0.751

Source : HDR 1990-2013

Table 4.3.1 has shown trend of Life Expectancy Index of SAARC countries from 1990 to 2013. The chronological improvement in life expectancy is seen significantly. There is wide variation in life expectancy among the countries of SAARC. Although various socio-economic cause it is seen that the health achievement index has gradually increased over time. The notable feature of the table is that the rank of the country is in high variation over the period of time. People of India and Pakistan are less life expectancy rate compare to Sri- Lanka. It would be assumed that the countries with higher percent of utilization of various public health service have significantly higher longevity and vice-versa.

#### 4.2.2. Trend of Educational Index in SAARC Countries

HDR years	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri-Lanka
1990	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-
1993	0.37	0.36	0.52	0.84	0.36	0.32	0.82
1994	0.38	0.37	0.52	0.85	0.37	0.37	0.82
1995	0.38	0.38	0.53	0.86	0.36	0.37	0.82
1996	0.38	0.39	0.53	0.86	0.37	0.39	0.83
1997	0.38	0.39	0.54	0.89	0.45	0.41	0.82
1998	0.39	0.39	0.55	0.89	0.46	0.44	0.83
1999	0.39	0.39	0.56	0.90	0.47	0.43	0.84
2000	0.40	0.42	0.57	0.90	0.48	0.42	0.84
2001	0.45	0.42	0.57	0.91	0.50	0.41	0.82
2002	0.45	0.48	0.59	0.91	0.50	0.40	0.83
2003	0.45	0.48	0.61	0.90	0.53	0.44	0.83
2004	0.46	0.48	0.61	0.87	0.51	0.46	0.81
2005	0.472	0.481	0.620	0.861	0.518	0.466	0.814
2006	0.478	0.482	0.621	0.866	0.519	0.468	0.817

<b>2007/08</b>	0.503	0.484	0.625	0.867	0.520	0.471	0.822
<b>2009</b>	0.521	0.485	0.627	0.872	0.521	0.473	0.824
<b>2010</b>	0.528	0.490	0.631	0.891	0.527	0.479	0.847
<b>2011</b>	0.559	0.528	0.628	0.984	0.591	0.482	0.906
<b>2013</b>	0.564	0.536	0.629	0.989	0.598	0.555	0.928

Source: HDR 1990-2013

Table 4.2.2 illustrates the education achievement index of SAARC country for the period of 24 years is seen in variations. The educational achievement slightly increase in 2010 as compare to 1990. In 2013, Maldives and Sri-Lanka achieved highest educational index where as Pakistan, Bangladesh and Nepal seen lowest educational index in the region. As important finding from the table show the improvement in educational index in the region. Most notable thing is that the improvement in HDI is continuously positive which prove there is possibility of improvement. For the most of the country, the education index increase in every period over the previous one.

### 4.2.3. Trend of PPP(\$)<sup>in</sup> SAARC Countries

HDR years	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri-Lanka
1990	872	800	1072	1200	920	1862	2405
1991	1160	620	1150	1200	1130	1970	2650
1992	1230	750	1230	1200	1170	2890	2850
1993	1600	790	1240	2200	1000	2160	3030
1994	1331	1289	1348	2200	1137	2154	3277
1995	1382	1382	1422	3540	1145	2209	3408
1996	1110	-	1580	3140	1180	1600	2290
1997	1050	1467	1670	3690	1090	1560	2490
1998	1361	1536	2077	4083	1157	1715	2979
1999	1483	1341	2248	4423	1237	1834	3279
2000	1602	1412	2358	4485	1327	1928	3530
2001	1610	1833	2840	4798	1310	1890	3180
2002	1700	1969	2670	4798	1370	1940	3570
2003	1770	1969	2892	-	1420	2097	3778
2004	1870	1969	3139	-	1490	1969	4390
2005	2053	-	3452	5261	1550	2370	4595
2006	1476	2804	3459	5267	1607	2386	4609
2007/08	1498	3654	3462	5276	1145	2477	4782
2009	1522	4688	3465	5272	1158	2492	4822
2010	1529	5293	3468	5276	1160	2550	4943
2011	1624	5256	3286	6412	1148	2561	5092
2013	1785	5246	3285	7478	1137	2566	5170

Source: HDR 1990-2013

Table 4.2.3 shows the trends of Purchasing Power Parity of SAARC member countries since 1990 to 2013. It highlights the standard of living achievement for the time period of SAARC countries. The result indicates that over the decade, value of achievement index is increasing for the states and the country as a whole. It is seen that relatives ranking of SAARC do not change much in term if the standard of living achievement index. Human resources is the major factor of any production and development. Government will invest in human resources which help to raised HDI. The potentiality of development is fulfilled by doing optimum utilizations of scare resources, cheap labor etc. In 1990, GDP per capita of this region is gradually increasing. In 2013 Maldives was in top with GDP per capita (PPP) \$ 2405 where as after 24 years Maldives

was in top with 7478 in 2013. Overall, we can see that the SAARC member countries' Per Capita GDP slightly improving years to years.

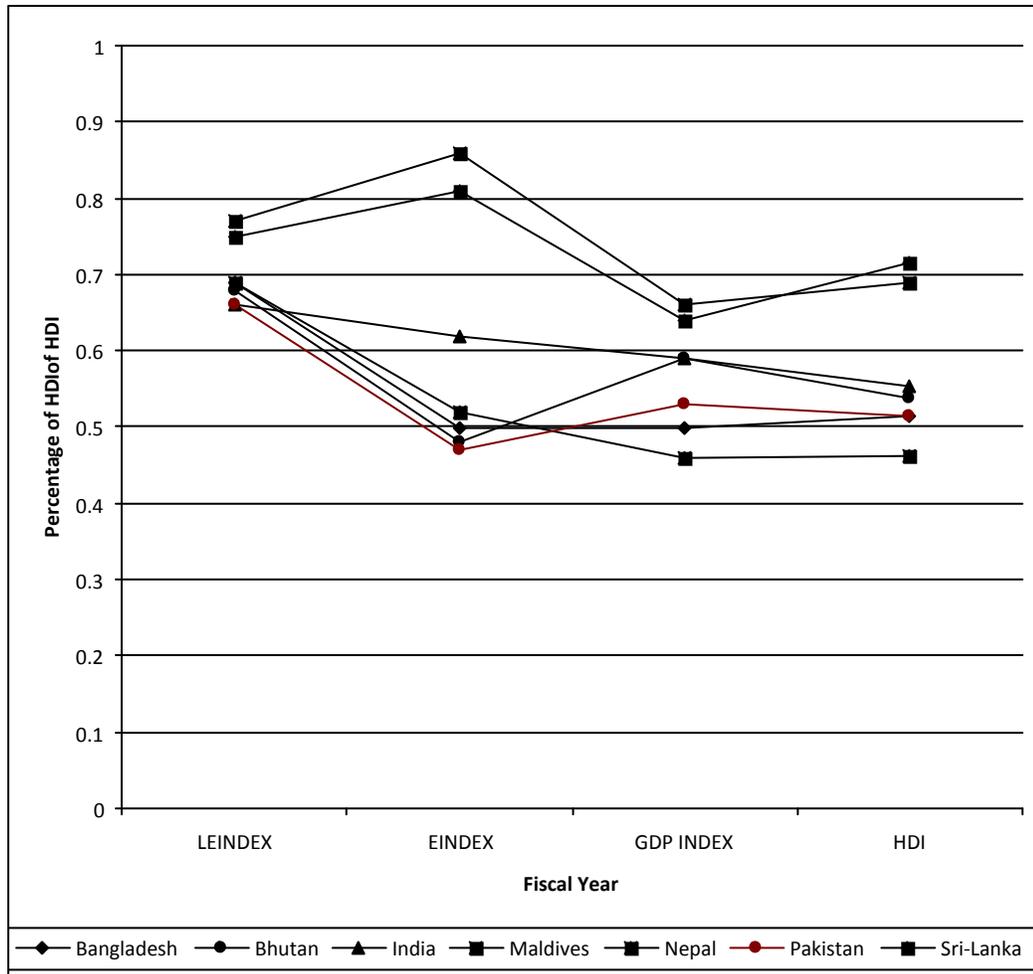
### 4.3 Trend of Human Development Indicators in SAARC countries: 2013

HDR years	LEINDEX	EINDEX	GDP INDEX	HDI
<b>Bangladesh</b>	0.69	0.50	0.50	0.515
<b>Bhutan</b>	0.68	0.48	0.59	0.538
<b>India</b>	0.66	0.62	0.59	0.554
<b>Maldives</b>	0.77	0.86	0.66	0.688
<b>Nepal</b>	0.69	0.52	0.46	0.463
<b>Pakistan</b>	0.66	0.47	0.53	0.515
<b>Sri-Lanka</b>	0.75	0.81	0.64	0.715

Source : HDR

2013

Table 4.3 shows the trend of human development indicators in SAARC based on Life Expectancy Index, Educational Index and GDP index in the year 2013. Among SAARC countries Sri Lanka recorded the highest HDI followed by the Maldives. It may be noted that Sri Lanka run a unique set of free health and education system, which are not provided by any other SAARC countries in this region. The Maldives and Nepal also do better with respect to human development than they do in term of per capita. However, three SAARC countries India, Pakistan and Bangladesh record low HDI, not standing their relatively better performance by the GDP per capita standard. The value if economic development lies in the using of resources resulting from expansion for the purpose of human development. It is necessary to improved three dimension of human development that is a long and healthy life, knowledge and a decent standard of living to increased HDI in the SAARC region.



**Fig 4.4: Trend of HDI in SAARC countries in the Fiscal Year 2013**

The important conclusion from the table is that among the seven countries namely Sri-Lanka and Maldives were the top most countries in term of HDI. More surprising fact is that over time, improvement in Nepal was negligible and it was almost in the bottom position in term of HDI. And the improvements in HDI in India and Bangladesh seen high level in the days near future. By 2050, aggregate HDI could rise 36 per cent in South Asia from 0.527 to 0.714 if improvement goes continuously in same way.

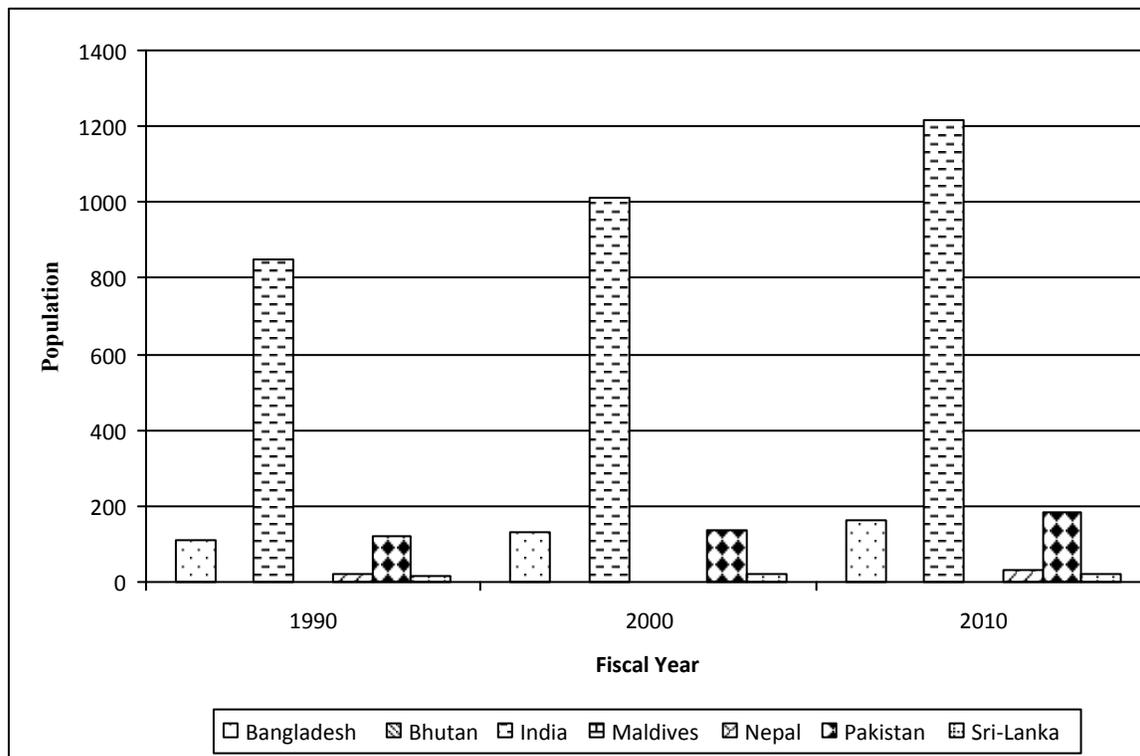
#### 4.4 Population of SAARC Countries

HDR years	Population in Million		
	1990	2000	2010
<b>Bangladesh</b>	108	129	164.4
<b>Bhutan</b>	1.5	2.1	2.4
<b>India</b>	851	1014	1214.5
<b>Maldives</b>	0.2	0.3	0.38
<b>Nepal</b>	19	2.4	29.9
<b>Pakistan</b>	122	138	184.8
<b>Sri-Lanka</b>	17	19	20.4

Source : UN Report1990-2011

Table 4.4 presents the SAARC members population between 1990 to 2011. The world population increased from 4.8 billion to 7.8 billion. As that population become more educated its growth rate will slow. Moreover, development prospects are influenced not just by the total member of people, but also by the populations age structure. As increasing critical concern is a country's dependency ratio that is the number of younger and older people divided by the working age of population age 15-65. Girls' education is a critical vehicle of a possible demographic dividend. Overall, the increase in population is like fuel to economic development if it is educated and skilled full population otherwise obstacle for the development. The population of India and Pakistan followed by Bangladesh seems higher in 1990 where mostly poverty also seen so until and unless the increasing population couldn't properly managed; to increase in HDI is not as expected.

In 2010, the population of India is increase to 1214.5 million which was 851 million before twenty years and the population of Maldives is increases more among other SAARC countries which was 0.2 in 1990 and it was about 0.38 in 2010 even though Maldives remains in top on SAARC human development index. An accelerate progress scenario suggests that low HDI countries can converge towards the levels if human development achieved by high and very high HDI countries. Thus increase in population shows the possibility of improvement in HDI if and only if huge investment is done for the progress and opportunity of human resources.



**Fig.4.5: Population of SAARC countries since 1990 to 2010 in Millions**

## 4.5 International Comparison of SAARC Countries 2012

Country	Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka
<b>Indicators</b>								
<b>Population (in million)</b>	24.5	140.6	0.7	1134	0.3	26.4	159.3	20
<b>Annual Growth Rate (Pop.)</b>	1.7	1.3	1.9	1.4	2.0	2.1	NA	0.6
<b>Human Development Index</b>	0.374	0.515	0.538	0.554	0.688	0.463	0.515	0.715
<b>Population Density</b>	42	1102	14	356	1019	192	206	294
<b>Literacy rate</b>	43.1	58.7	67.1	76.9	97	70.3	68.7	93
<b>Life Expectancy at Birth</b>	42.1	63.7	65.3	64.5	67.9	63.2	65.2	75.0

Source: ADB Key Indicator for Asia and Pacific 2012

Table 4.5 shows International comparisons of all eight member country of SAARC. The progress on HDI from can also be measured in relation to other countries, in term of rank. The best performing country is ranked as number one. Thus in 2007/08 Norway is ranked number 1 because it had the highest index of 0.963. The lowest Salvia is ranked as in last number 192 with an index of 0.289 where as in SAARC countries Sri-Lanka is placed in top and later joined member Afghanistan is placed in lowest with HDI 0.374 in 2012. Human resources is the major factor of any production and development. Government will invest in human resources which help to raised HDI. The potentiality of development is fulfilled by doing optimum investment in human resources. Regional economic cooperation has found to be an important engine of growth by the developing countries all over the world. Developing countries in south east Asia, Latin America, Southern Africa have launched program aiming at regional countries can strengthen their economic and improve their growth prospects by mutual economic cooperation. SAARC is in need of steady and economic growth. The economic growth of SAARC is yet to improve the met the high level of HDI.

#### 4.6 GDP Per Capita (PPP \$) and its growth rate in SAARC Countries.

HDR years	GDP Per Capita (PPP \$)			Growth Rate (1990-2010) in Percent (%)
	1990	2000	2010	
<b>Bangladesh</b>	872	1602	1529	3
<b>Bhutan</b>	800	1412	5293	3.4
<b>India</b>	1072	2358	3468	4.1
<b>Maldives</b>	1200	4485	5276	NA
<b>Nepal</b>	920	1327	1160	2.4
<b>Pakistan</b>	1862	1928	2550	1.2
<b>Sri-Lanka</b>	2405	3530	4943	3.9

Source: World Bank Report 1990-2010

#### 4.7 Rank of SAARC Countries according to HDI Value

Years	1990			2000			2010		
	HDI	Out of 120	Rank	HDI	Out of 150	Rank	HDI	Out of 177	Rank
<b>Country</b>									

	Value	Countries	SAA RC	Value	country	SAA RC	Value	country	SAAR C
<b>Bangladesh</b>	0.318	117	4	0.461	146	7	0.469	129	<b>5</b>
<b>Bhutan</b>	0.236	119	6	0.483	142	5	NA	NA	NA
<b>India</b>	0.439	94	2	0.563	128	3	0.519	119	3
<b>Maldives</b>	NA	-	-	0.725	89	2	0.602	107	2
<b>Nepal</b>	0.273	114	5	0.474	144	6	0.428	138	6
<b>Pakistan</b>	0.423	95	3	0.522	135	4	0.490	125	4
<b>Sri-Lanka</b>	0.789	47	1	0.733	84	1	0.658	91	1

Source: HDR 1990 – 2011

#### 4.8 Trend of Human Development Index of SAARC since 1985-2013 :

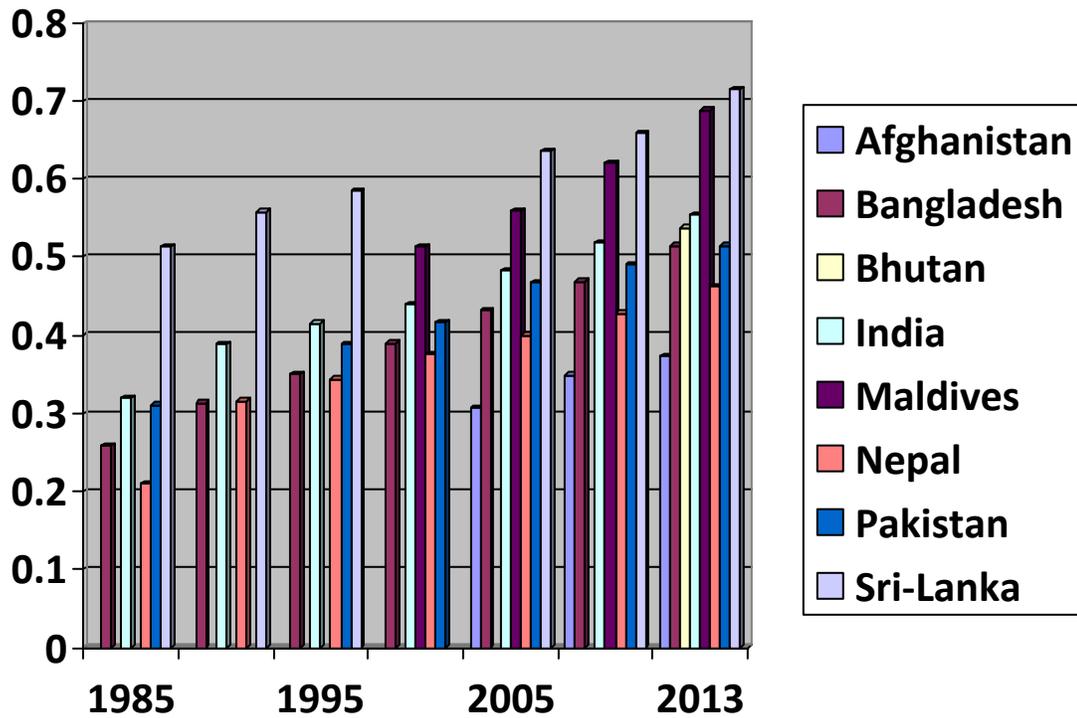
CountryYears	1985	1990	1995	2000	2005	2010	2013	Average Annual HDI Growth(%)	HDI Improvement (1990-2013)
Afghanistan	-	-	-	-	0.307	0.349	0.374	-	-
Bangladesh	0.259	0.313	0.350	0.390	0.432	0.469	0.515	2.03	3
Bhutan	-	-	-	-	-	-	0.538	-	-
India	0.320	0.389	0.415	0.440	0.482	0.519	0.554	1.44	6
Maldives	-	-	-	0.513	0.560	0.620	0.688	-	-
Nepal	0.210	0.316	0.344	0.375	0.400	0.428	0.463	1.52	1
Pakistan	0.311	-	0.389	0.416	0.468	0.490	0.515	1.55	10
Sri Lanka	0.513	0.558	0.584	-	0.635	0.658	0.715	0.82	47

Source : HDR 1985-2013

## **Trend in Human Development**

The UNDP Human Development Index (HDI) measure the average achievement of a country in basic human capabilities. The HDI indicates whether people lead a long healthy life as measured by birth expectancy at birth are educated and knowledge, as measured by the adult literacy rate and enjoy a decent standard of living, as measured by GDP per capita (PPP US Dollar). The HDI value ranges from 0 to 1. A higher HDI reflect a higher level of average achievement of a country in the basic human indicators.

The disappointing outcomes of economic and social development policies in south Asian countries since their independence are evident from the low level of per capita income, low human development indicators, high level of fiscal and current account deficit and pervasive poverty. All major countries in the region had adopted as inward looking import substitution policy for industrial development. The state became the dominant player in all economics activities. All countries had turned to donors for financial and technical assistance in support of economics reforms which cannot be seen in long term sustainable. Civil strike, political instability and instability in the region is main problem which create obstacle in development although growth has been generally been positive for all south Asian countries. The trend of HDI will be smoothly growing if and only if peaceful and investing environment prevail in the country.



**Fig.4.6: Trend of HDI in SAARC countries (1985-2013)**

The pace, sequencing and timing of reforms has varied between countries but the decade of 1990s has proved to be a turning point in SAARC for the reform movement. The revenue loss from the tariff reforms during the reform era varies considerably both between countries and over time for each of the countries in SAARC. Bangladesh has not

seen much acceleration in growth rates during the 1990s. Nepal's growth rate at 3.6 percent per annum has been lower than that of Bangladesh but it has shown a slight acceleration over its own growth rate of the previous decade. In the case of Pakistan, the growth rate during the 1990s has fluctuated between 1.9 percent and 7.8 percent in 1996/97 and 2009/10 respectively. Fluctuation notwithstanding there has been implementation of reform, political instability, external shocks including adverse change in weather and sanction.

Macro instability has been a major concern in SAARC countries. All countries have experienced high fiscal deficit as a proportion of GDP. Little revenue mobilization and lack of expenditure control have been the major causes of continuing high fiscal deficit. India's position has been relatively more comfortable and Nepal's has been the most difficult one throughout the decade. Despite increase FDI flow to Sri Lanka and India, South Asia has not been a preferred region for attracting major high in SAARC countries. Not only this poverty rates in SAARC have remained high which cause HDI cannot improve as expected. The growth and human development in SAARC is a matter of serious concern in recent days. However, the prospects of rapid improvement in human well-being are bright. Acceleration of growth with human development and poverty reduction is a realistic expectation in all countries. Peace in the region and cessation of internal state could make SAARC an attractive region for Foreign Investment.

## CHAPTER-5

### **Measurement of Human Development Index and Relationship between the Components of Human Development**

This chapter mainly comprises with the various methodologies to calculate the human development index as well as the analysis of data to show the relationship among human development indicators and the real GDP. Different goal posts are taken to the measurement of HDI. Ordinary least square methods have been used for data analysis.

#### **5.1 Measurement of Human Development Index (HDI)**

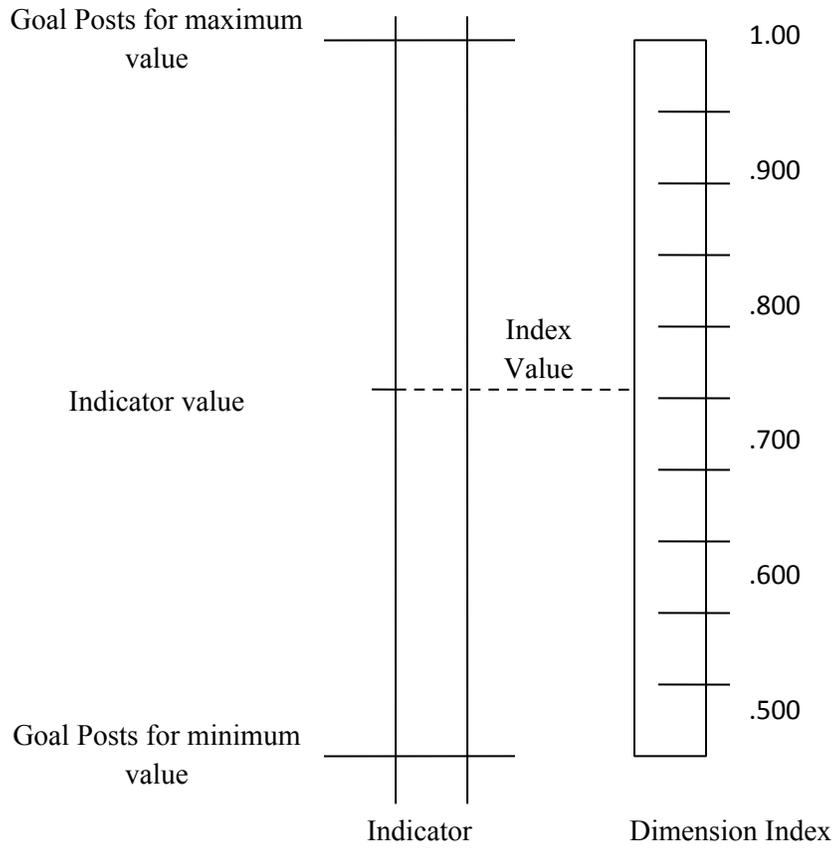
The HDI is a summary measure of human development. It measures the average achievements in a country in three basic dimensions of human development:

- A long and healthy life, as measured by life expectancy at birth.
- Knowledge as measured by the adult literacy rate and the combined gross enrolment ratio.
- A decent standard of living as measured by GDP per capita (PPP US\$).

We described in detail about life expectancy, educational attainment and adjusted real GDP per capita (PPP\$) in previous chapters. We have also collected information about these topics in order to measure the Human Development Index. It should be mentioned here that we need separate index of life expectancy, educational attainment and adjusted real GDP per capita index for the construction of over all Human Development Index. We now present the methods for the measure of HDI by calculating the three indicators separately. Before the HDI itself is calculated - minimum and maximum values (goalposts) are chosen for each underlying indicator.

**Fig 5.1**

**Measurement of HDI**



Performance in each dimension is expressed as a value between 0 and 1 by applying the formula which has been already presented in the Research Methodology.

### 5.1 Goal Posts for Calculating the HDI

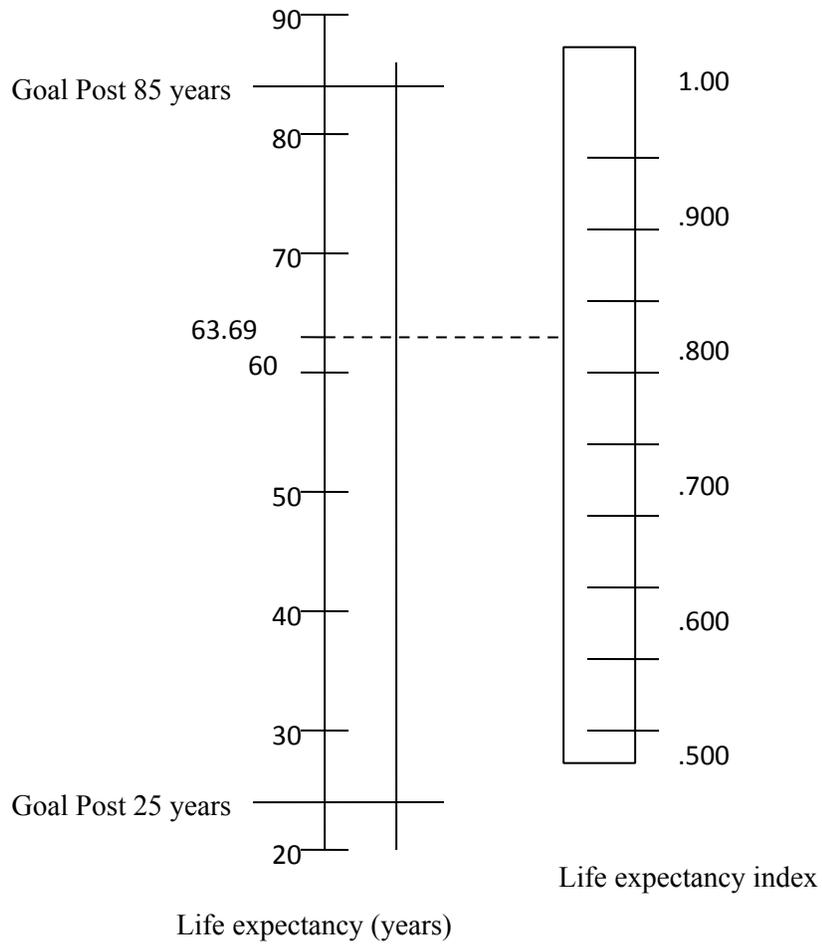
<b>Indicator</b>	<b>Maximum value</b>	<b>Minimum value</b>
Life expectancy at birth (years)	85	25
Adult literacy rate (%)	100	0
Combined gross enrolment ratio (%)	100	0
GDP per capita (PPP US \$)	40,000	100

Above these goal posts are used to calculate each dimensions. Now, we are going to recalculate the HDI of Nepal for 2006.

#### 5.1.2 Calculating the Life Expectancy Index

The life expectancy index measures the relative achievement of a country in the life expectancy at birth. For Nepal, with a life expectancy of 61.6 years in 2003 the life expectancy index is 0.61.

**Fig 5.2**  
**Calculating the LEINDEX**



$$\text{LEINDEX} \square \frac{\text{actual value} - \text{minumum value}}{\text{max imum value} - \text{minimum value}}$$

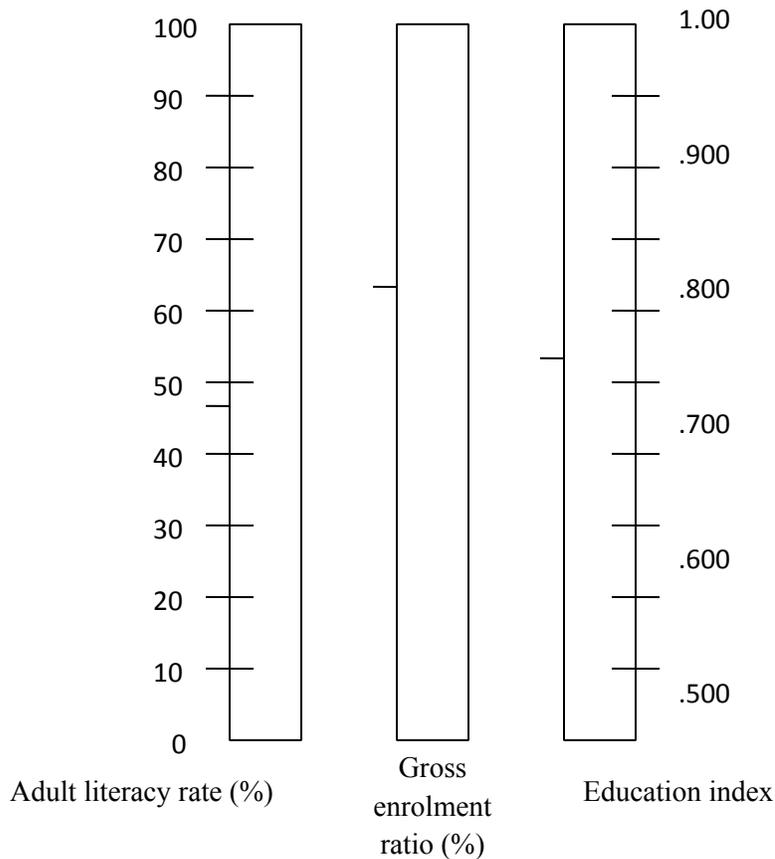
$$\frac{63.69 \square 25}{85 \square 25} \square 0.645$$

### 5.1.3 Calculating the Education Index

The education index measures a country's relative achievement in both adult literacy and combined primary, secondary and tertiary gross enrolment. First, an index for adult literacy and one for combined gross enrolment are calculated. Then these two indices are combined to create the education index, with two-thirds weight given to adult literacy and one-third weight to combined gross enrolment. For Nepal, with an adult literacy rate of 48.6 percent in 2003 and a combined gross enrolment ratio of 62 percent in the school year 2005/2006, the education index is 0.53.

**Fig 5.3**

**Calculating the EINDEX**



$$\text{Adult literacy index} = \frac{\text{Actual value} - \text{minimum value}}{\text{maximum value} - \text{minimum value}}$$

$$= \frac{52.42 - 0}{100 - 0} = 0.524$$

$$\text{Mean Yrs of Schooling Index} = \frac{\text{Actual value} - \text{minimum value}}{\text{maximum value} - \text{minimum value}}$$

$$= \frac{3.21 - 0}{15 - 0} = 0.214$$

$$\text{Education index} = \frac{2}{3} (\text{adult literacy index}) + \frac{1}{3} (\text{mean yrs of schooling})$$

$$= \frac{2}{3} (0.524) + \frac{1}{3} (0.214) = 0.421$$

#### 5.1.4 Calculating the GDP Index

The GDP index is calculated using adjusted GDP per capita (PPP US \$). In the HDI income serves as a surrogate for all the dimensions of human development not reflected in a long and healthy life and in knowledge. Income is adjusted because achieving a respectable level of human development does not require unlimited income. Accordingly, the logarithm of income is used. For Nepal, with a GDP per capita of \$1,597 (PPP US \$) in 2006, the GDP index is 0.46. According to HDR 2013, the per capita GNI of Nepal is 1,137 (US \$) which is lower to last few years.



$$\text{GDP Index} = \frac{\log(\text{Actual value} - \text{minimum value})}{\log(\text{maximum value} - \text{minimum value})}$$

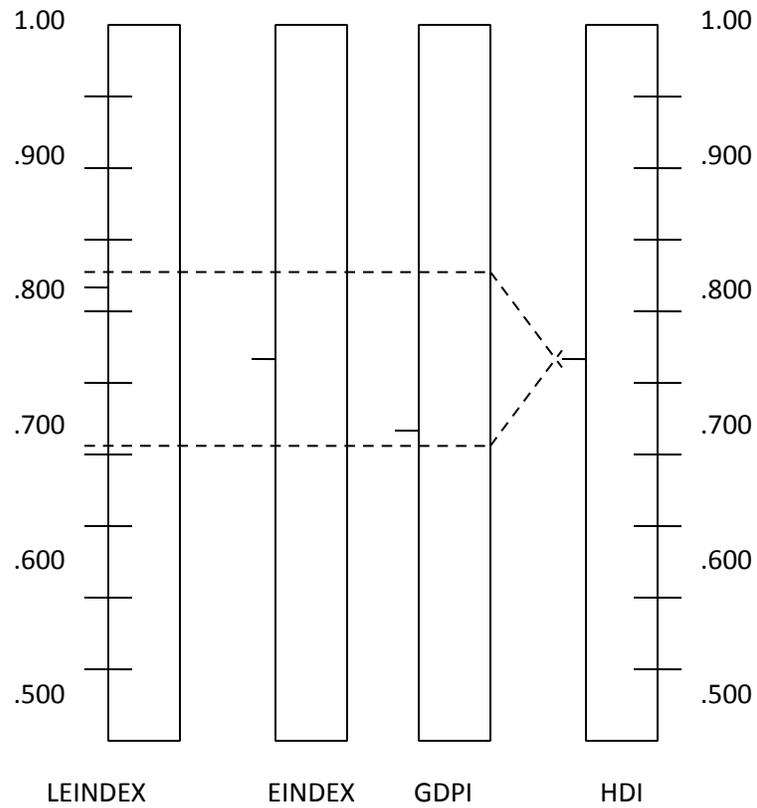
$$= \frac{\log(1597) - \log(100)}{\log(40,000) - \log(100)}$$

$$= 0.4624$$

### 5.1.5 Calculating the HDI

Once the dimension indices have been calculated, determining the HDI is straight forward. It is a simple average of the three dimension indices.

**Fig 5.5**  
**Calculating the HDI**



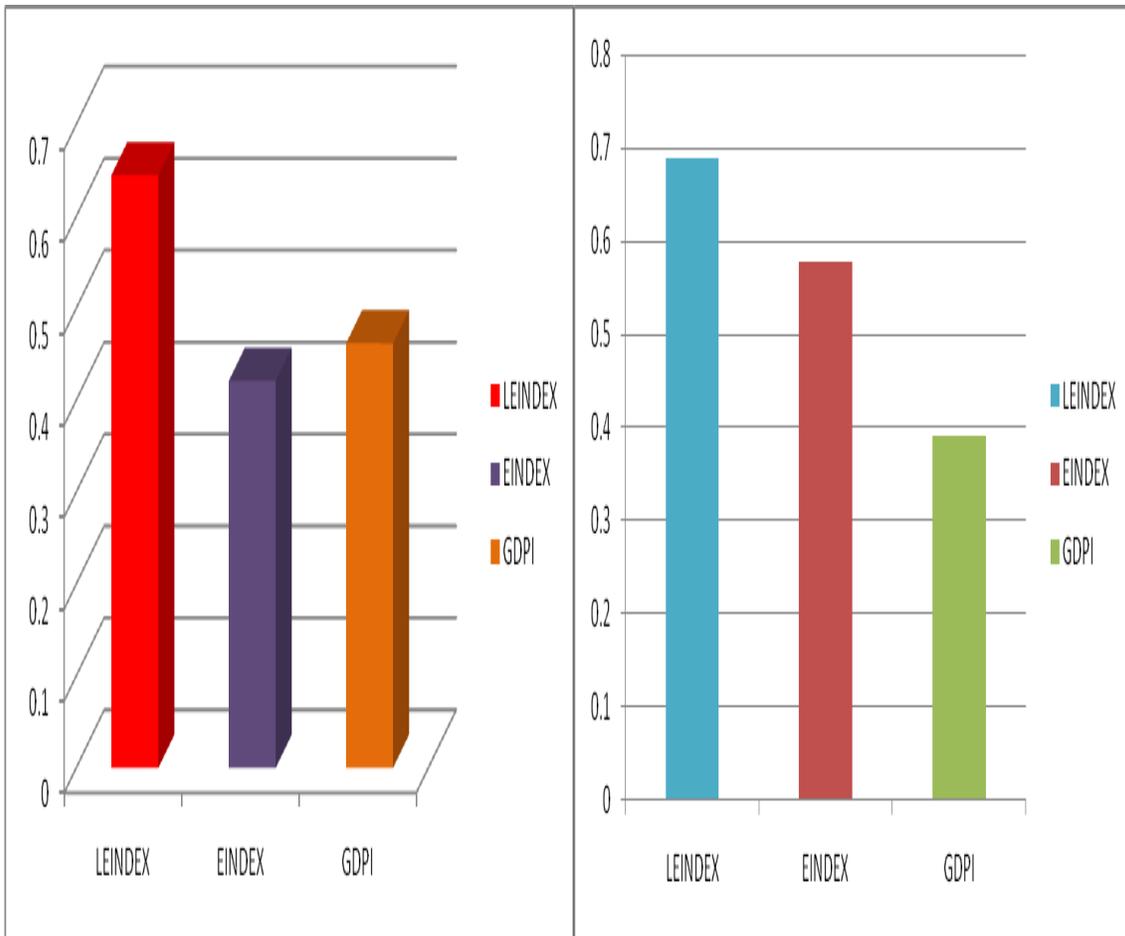
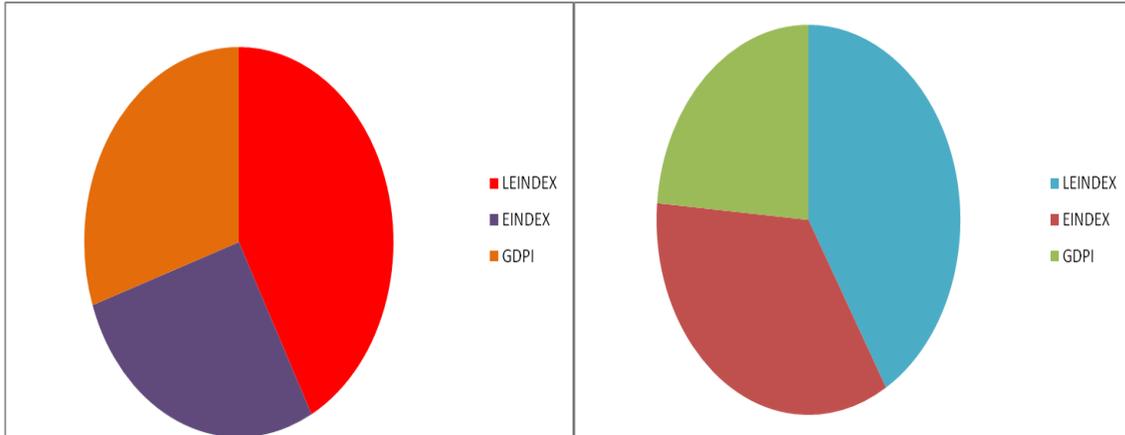
$$\text{HDI} = \frac{1}{3} (\text{life expectancy index}) + \frac{1}{3} (\text{education index}) + \frac{1}{3} (\text{GDP index})$$

$$\frac{1}{3}(0.645) + \frac{1}{3}(0.421) + \frac{1}{3}(0.462)$$

$$= 0.509$$

The above result 0.509 is the HDI of Nepal in 2006. This value shows Nepal lies in medium human development [i.e. HDI 0.500 – 0.799].

We can show the human development indicators by using pie and bar diagram



**Fig 5.6 Human Development Indicator in Pie and Bar-Diagram**

### 5.2 Calculating the HDI

<b>Nepal Human Development Report 2009</b>	Value of 2006	<b>Human Development Report 2009</b>	Value of 2007
Life Expectancy Index	0.688	Life Expectancy Index	0.645
Educational Index	0.579	Educational Index	0.421
GDP Index	0.392	GDP Index	0.462
Human Development Index	0.509	Human Development Index	0.553

The above fig 5.6 and Table 5.2 shows the weight age of basic elements of HDI. Here, basic components expressed in terms of index. It further depicts that the weighted value of life expectancy index has relatively higher than other two, which is 0.688 in 2006 and 0.645 in 2007. Not only this, GDP index is low compared to other index due to the low gross domestic per Capita. From this result, we can say that there is a higher possibility to improve our HDI by increasing the GDP per Capita.

## **5.2 Analysis of Data**

### **5.2.1 Present Situation of Nepal**

It is bitter truth that Nepal is one of the poorest country in the world with low per Capita GDP of 294 US dollar in 2005 (CBS, 2005). Adult literacy rate was 48.6 percent in 2003 (HDR 2005). High malnourishment exists under the age of five. Nepal is indeed, the most deprived country in the world with about 31 percent of the population under poverty line (CBS, 2005). Nepal is primarily an agricultural country with an estimated population of 23.15 million of which nine-tenths live in rural areas, with the annual growth rate of 2.24 percent (CBS, 2002). Nearly half of the gross domestic product (GDP) originates from agriculture. Land distribution is very skewed, resulting in unequal distribution of income. The Human Development Report, 2006 places Nepal at the 138<sup>th</sup> position among the 177 countries of the world in terms of human development aspect. In Nepal, currently, the Tenth Plan (2002-07) is under implementation with twin objectives to achieve higher growth and poverty alleviation. It is evident that income inequalities and impoverishment are damaging the social, political and economic structures of Nepal. Realizing this fact, the Ninth and Tenth plan have given the topmost importance to enhance human capability to successfully attain the objective of poverty reduction.

### **5.2.2 Trends in Human Development Indicators**

We know that, every things is changeable. Since 1990, when the UNDP started to publish the 'Human Development Report; then HDI is taken as the main basis to define economic development. According to Human Development Report, 1990 Nepal is ranked at 113<sup>th</sup> position among 130 countries when the countries are ranked in descending HDI order. This report further depicts that HDI of Nepal is 0.273 but this report doesn't indicate this HDI (= 0.273) for any one specific year due to the lack of necessary data, as data are taken from different years. During the course of 16 years (1990 – 2006) recently published Human Development Report, 2005 has revealed that Nepal ranked 41<sup>st</sup> position from below among 177 countries and Human Development Index which was equal to 0.526 for the year 2003 and it was ranked at 38<sup>th</sup> position from below our of 182

countries and HDI was equal to 0.553 (2007) which is better than HDI 0.534 (2005). Thus this shows increasing trend of HDI.

Nepal had started liberalising its trade and investment policies during 1990s. in 1985, Nepal had approached the IMF for assistance. The fiscal objectives included an increase in public saving, a reduction to domestic borrowing for financing of the budget and an improvement in the efficiency of public expenditure. Fiscal deficit in Nepal have remained at unsustainable levels with low revenue and high non-developemnt spending, resulting in high domestic borrowing. The domestic saving rate in Nepal is one of the lowest leading to heavy dependence on external sorces for financing investment. A significant increase in the rate of growth in GDP is found as it rose from 3.9 percent during 1985 to 4.1 percent during 2010s. however, a break down of growth by sectors show the weak impact of reforms in productive sectors.

Since the onset of liberalization policies in Nepal, negative trends have been observed on income distribution, unemployment and underemployment. Poverty situation has also worsened due both to raising inequalities and declining growth record during the 2010s has been low relative to the 1990s. The growth in agriculture and industrial sectors has also fluctuate widely expect construction, trasport and communication seen improved. Nepal has great potential to boost export earning, by utilizing its hydropower potential establishing likage with the software industry and further encouraging tourism in china and SAARC Countries.

### 5.3 Historical Trends in HDI and Real GDP of Nepal (1990-2013).

YEAR	EINDEX	GDPI	HDI	LEINDEX	REALGDP
1990	0.22	0.151	0.17	0.45	174908
1991	0.23	0.179	0.289	0.46	183371
1992	0.36	0.20	0.343	0.48	188780
1993	0.37	0.145	0.332	0.48	204397
1994	0.36	0.167	0.347	0.51	209976
1995	0.37	0.168	0.351	0.52	221930
1996	0.29	0.413	0.403	0.50	233040
1997	0.45	0.399	0.463	0.54	240816
1998	0.46	0.41	0.474	0.55	251758
1999	0.47	0.42	0.48	0.55	267096
2000	0.48	0.432	0.49	0.56	280106
2001	0.50	0.43	0.499	0.57	279169
2002	0.50	0.437	0.504	0.58	287857
2003	0.53	0.443	0.526	0.61	297231
2004	0.51	0.450	0.527	0.62	301152
2005	0.52	0.458	0.534	0.62	315672
2006	0.53	0.462	0.509	0.64	318725
2007/8	0.531	0.458	0.534	0.642	319246
2009	0.521	0.588	0.553	0.653	309892
2010	0.527	0.462	0.428	0.675	320426
2011	0.591	0.688	0.458	0.683	361245
2013	0.604	0.696	0.463	0.691	3891728

By taking the help of above table 5.1, we are going to examine the relationship among HDI, real GDP and GDPI. Where, HDI is treated as dependent variable. To that end, the equation can be written as:

$$\ln \text{HDI} = a + b \ln \text{realGDP} + b_1 \ln \text{GDPI} \dots\dots\dots(1)$$

$$\ln \text{HDI} = -4.310 + 0.376 \ln \text{realGDP} - .212 \ln \text{GDPI}$$

$$\text{P-value} = (.002) \quad (.002) \quad (.163)$$

$$R^2 = .919, \quad \bar{R}^2 = .907, \quad N = 17, \quad F = 79.187 \quad * (P = .000)$$

\*Significant at 1% level of significance.

Note: Figure in the parenthesis are t-values with its corresponding significance.

The equation-1 shows that an increase in real GDP has a positive effect on the HDI. It implies that 1 percent increase in real GDP causes less than 1 percent increase in HDI value in Nepal. This relation is statistically significant. On the other hand if GDPI increases by 1 percent, then HDI decreases by -0.21 percent, the relation is statistically insignificant. Theoretically there is no ground to that GDPI has negative impact on HDI.  $\bar{R}^2$  is nearly 0.92, meaning that 92 percent of changes in HDI is explained by the changes in explanatory variables under consideration. The F value 79.187 is also significant at the 1 percent level of significance.

Moreover, we can examine the relationship between HDI and real GDP, by assuming lag in HDI is treated as an explanatory variable. The following equation can be used:

$$\ln \text{HDI} = a + b \ln \text{realGDP} + b_1 \ln \text{HDI}_1 \dots\dots\dots(2)$$

$$\ln \text{HDI} = -0.313 + .379 \ln \text{realGDP} + .781 \ln \text{HDI}_1$$

$$\text{P-value} = (.146) \quad (.050) \quad (.003)$$

$$R^2 = .941, \quad \bar{R}^2 = .932, \quad N = 16, \quad F = 102.997* (P = .000)$$

\*Significant at 1% level of significance.

Note: Figures in the parenthesis are t-values with its corresponding significance.

The relationship between human development index and other explanatory variables such as real GDP and HDI<sub>1</sub>, is less than proportional. The positive and

statistically significant coefficients of HDI<sub>1</sub> show that 1 percent increase in HDI<sub>1</sub> causes 0.781 percent increase in HDI value in Nepal.  $\bar{R}^2$  is 0.93 meaning that 93 percent of the changes in HDI is explained by the changes in explanatory variables under consideration. The F value is also significant at the level of 1 percent.

### **Education Index [EINDEX]**

To examine the relationship among EINDEX real GDP and GDPI, the following equation has been used:

$$\ln \text{EINDEX} = a + b \ln \text{real GDP} + b_1 \ln \text{GDPI} \dots\dots\dots(3)$$

$$\ln \text{EINDEX} = -7.036 + .606 \ln \text{real GDP} - .202 \ln \text{GDPI}$$

P-value	= (.000)	(.000)	(.288)
---------	----------	--------	--------

$$R^2 = .866, \quad \bar{R}^2 = .847, \quad N = 17, \quad F = 45.142^* \quad (P = .000)$$

\*Significant at 1% level of significance.

Note: Figure in the parenthesis are t values with its corresponding significance.

The above results indicate that the change in real GDP has a significant impact on the EINDEX. But, the relationship between EINDEX and GDPI is not significant. In addition, the statistically significant coefficient of the real GDP indicates that 1 percent change in real GDP will change EINDEX by 1percent..  $\bar{R}^2$  is nearly 0.86 meaning that 86 percent change in EINDEX is associated with the change in real GDP and GDPI. The F value is also significant at the level of 1 percent.

### **Life Expectancy Index [LEINDEX]**

There is a positive relationship between life expectancy index and real GDP. It is observed that the relationship is less than proportional. The estimated equation for life expectancy index is as follow.

$$\ln \text{LEINDEX} = a + b \ln \text{real GDP} + b_1 \ln \text{GDPI} \dots\dots\dots(4)$$

$$\ln \text{LEINDEX} = -3.877 + .359 \ln \text{real GDP} - .113 \ln \text{GDPI}$$

P-value	= (.000)	(.000)	(.088)
---------	----------	--------	--------

$$R^2 = .953, \quad \bar{R}^2 = .946, \quad N = 17, \quad F = 141.628^* \quad (P = .000)$$

\*Significant at 1% level of significance.

Note: Figure in the parenthesis are t-values with its corresponding significance.

The statistically significant coefficient of the real GDP indicates that 1 percent change in real GDP will change life expectancy by 0.359 percent. But the relationships between LEINDEX and GDPI have not significant relationship. Overall, this model is extremely good with 95 percent of variations in dependent variable. The F value is also significant at the level of 1 percent.

All these models, which have been presented above show that GDPI does not have significant relationship with HDI, LEINDEX and EINDEX. But, theoretically there is no reason to support this. So, we are going to find out its main cause. For it, first of all, it will be better to smooth the data of GDPI.

#### 5.2.2.1 Smoothing the Data of GDPI

Human development reports 1990-2006 have used the different methodologies to calculate the GDP index. So it creates confusion – means that in absolute term purchasing power parity of Nepal decreases while observing the GDP index it increases and vice-versa. Smoothing the data refers use of same methodology to calculate the index during 1990–2006. For smoothing the data of GDP index the following formula has been used.

$$GDPI \square \frac{\log(\text{Actual value} - \text{Minimum value})}{\log(\text{Maximum value} - \text{Minimum value})}$$

Where,

Maximum value (US\$) = 40,000

Minimum value (US\$) = 100

The following shows smoothing the data of GDPI.

### 5.2 Smoothing Data of GDPI (1990-2013)

YEAR	EINDEX	GDPI – 1	HDI	LEINDEX	REALGDP
1990	0.22	0.371	0.17	0.45	174908
1991	0.23	0.405	0.289	0.46	183371
1992	0.36	0.411	0.343	0.48	188780
1993	0.37	0.385	0.332	0.48	204397
1994	0.36	0.406	0.347	0.51	209976
1995	0.37	0.407	0.351	0.52	221930
1996	0.295	0.412	0.403	0.5	233040
1997	0.45	0.399	0.463	0.54	240816
1998	0.46	0.41	0.474	0.55	251758
1999	0.47	0.42	0.48	0.55	267096
2000	0.48	0.432	0.49	0.56	280106
2001	0.50	0.43	0.499	0.57	279169
2002	0.50	0.437	0.504	0.58	287857
2003	0.53	0.443	0.526	0.61	297231
2004	0.51	0.450	0.527	0.62	301152
2005	0.52	0.458	0.537	0.62	315672
2006	0.53	0.462	0.509	0.64	318725
2007/08	0.531	0.458	0.534	0.642	319246
2009	0.521	0.588	0.553	0.653	309892
2010	0.527	0.462	0.428	0.675	320426
2011	0.591	0.688	0.458	0.683	361245
2013	0.604	0.696	0.463	0.691	389176

Now, we are going to apply this Table 5.2 in equation-1 to examine the relationship of GDPI with dependent variable. Then, the estimated equation becomes:

$$\ln \text{HDI} = a + b \ln \text{real GDP} + b_1 \ln \text{GDPI} - 1 \dots\dots\dots(5)$$

$$\ln \text{HDI} = -6.359 + .548 \ln \text{real GDP} + .034 \ln \text{GDPI} - 1$$

$$\text{P-value} = (0.00) \quad (.000) \quad (.822)$$

$$R^2 = .918, \quad \bar{R}^2 = .906, \quad N = 16, \quad F = 72.898^* \quad (P = .000)$$

The model-5 shows that the relationship between human development index and other explanatory variables such as real GDP and GDPI – 1 is more than proportional. The positive and statistically significant coefficient on the real GDP and GDPI – 1 show that if 1 percent increases in real GDP and GDPI will causes .548 and 0.34 percent respectively increase in HDI value in Nepal.  $\bar{R}^2$  is equal to 0.906 shows us that the variation in explanatory variables can explain 90.6 percent variation in dependent variable. High value of F- statistics suggests that the overall model is fit significantly at 1 percent level of significance.

### 5.2.3 Conclusion

- In case of measuring the GDP index, vastly different methodologies are used. So it affects the result of our model, means the p-value is high or less significant relationship that exists between GDPI and life expectancy, literacy as well as HDI.
- Now, one of major the question can be arises – Is it due to the use of different methodologies that affect the final result of our model? It verifies that due to use of different methodologies which affects the significance or validity of our model. Second example is that after smoothing the data of GDPI, there is positive and significant relationship between GDPI and HDI.
- The major impacts on growth, macrostability and unemployment are key components of human development seen lower. So untill and unless its improvement, Nepal can not accelerate its own growth over the decade.
- Acceleration of growth with human development is possible only when there is peace and investment friendly environment in the country.
- Without peace, human development is not possible, without human development peace is not sustainable and so on need to sustain economic developemnt. Both require inclusion and participation which can evolve through raising component of HDI.

## CHAPTER 6

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 6.1 Summary of the Study

This study presents the different methodologies which have been used to calculate HDI, since HDR 1990 to 2013. In addition, it discusses the patterns and trends of HDI and its components as well. Except HDR 1990, the remaining all HDRs ranked to the countries according to their human development index in descending order. SAARC's HDI in 2007/08 was 0.526 compared to the world average of 0.741 and the average of 0.694 for the developing countries. SAARC's level of HDI is higher than that of the least developed countries (0.518), and higher than the average countries with low human development (0.486). Therefore, SAARC falls in the medium level of human development.

The association is facing numerous challenges ranging from confidence building among the member to accelerate human development. The progress in south Asia is very slow and sluggish. A giant leap is required for SAARC overall development. Poverty and unemployment are the daunting problem. So SAARC should face challenge to improve life expectancy, literacy level and income of the people then only human development is possible which raised HDI. Poverty has been a chronic problem and human development is the central challenge of the SAARC

The HDI of SAARC smoothly increasing to 0.527 in 2006. This shows little progress in HDI value compared to previous year's HDI value of 0.526. But SAARC has decreased by 2 position compared to the previous year. Now, SAARC countries place at medium position among 177 countries according to its HDI in descending order. It shows that other countries have achieved significant progress than that of SAARC Countries. Human development situation in SAARC is discouraging and need to focus grass root level on making and implementing policies if the countries and the region. Most importantly, lasting peace and huge investment is the dire need of SAARC region to improve human development situation in the region. To improve the condition of HD in

the SAARC, as more than 75 percent of people live in the rural areas without whose economic development will not possible to developed as expected Human Development. This study shows that there is a strong relationship among the selected human development indicators such as education, life expectancy index, human development index, and GDP during the period 1990-2013. The estimated results indicate that higher GDP growth rate is needed to enhance human capability by increasing public as well as private investments in education and health

According to HDR 2013, HDI of world and South Asia is 0.624 and 0.516 respectively. The top five countries in HDI are Norway (0.943), Australia (0.929), New Zealand (0.907), USA (0.902) and Ireland (0.895). The highest HDI among SAARC countries is Sri-Lanka with 0.691 (97<sup>th</sup>) and lowest is Afghanistan with 0.374(175<sup>th</sup>) whereas Nepal lies in 157<sup>th</sup> ranked with 0.463 in world among 186 countries and sixth in SAARC.

Human Progress is neither automatic nor inevitable. The rising economic prosperity will go hand-in-hand with mounting threats to human development today and the well-being of future generation. Without economic development, human development is not possible and without human development, economic development is not sustainable. Both require inclusion and participation which can evolve through raising three component of HDI. The concept of human development as an alternative to definition of development which focused on growth and believes that the purpose of the development is to enlarge all human choice not just in income.

This chapter briefly presents the significant findings of the study –

- Life expectancy at birth of Nepal is 0.61 as indicated by HDR 2005. It is the significant index because life expectancy is the proxy of food, nutrition and good health. Result of this study indicated that Nepal has made some progress in health sector. But, in SAARC countries Nepal has less life expectancy index than many other countries. According to HDR 2005, India, Pakistan, Bhutan and Bangladesh

have 0.64, 0.63, 0.63 and 0.63 indexes respectively. Sri Lanka and Maldives have good index in SAARC countries 0.82 and 0.69. It seems that Nepal's position is not very poor compared with other SAARC countries. But if we compare with other developed and industrial countries such as Japan and Hong Kong, China (SAR) which have 0.95 and 0.94 life expectancy index, the situation of Nepal is very poor.

- We know that education index comprises adult literacy rate and mean years of schooling or gross enrollment ratio. HDR 1990 to 1994 used mean years of schooling and adult literacy rate to calculate education index but from 1995 UNDP has started to use gross enrollment ratio (instead of mean years of schooling) and adult literacy rate to estimate education index. In aggregate, education index has some progress. HDR 1990 has indicated that it was 0.26 but now, it reaches 0.53 according to HDR 2005. It shows that during this period education index has increased more than two fold.
- Real GDP per capita index represents decent standard of living of a country. It is very low in Nepal. The study period spans between 1990-2013, GDP index increases from 0.14 to 0.44. It shows significant progress in GDPI. But, if we compare it to the developed or industrial countries, it is quite low, as Japan and United States have 0.99 GDP index in 2003. So it indicates that urgent measures be taken to increase real GDP in order to make significant improvement in our human development index.
- Empirical study shows that there is a strong relationship among the selected human development indicators such as education, life expectancy index, human development index, and GDP during the period 1990-2013. The estimated results indicate that higher GDP growth rate is needed to enhance human capability by increasing public as well as private investments in education and health.

## 6.2 Conclusion

The foregoing analysis leads to the conclusion that if Nepal continues to increase human development index from low level, it must increase the economic growth rate. Human development indicators such as education index, life expectancy index and human development index are closely related to the real GDP of Nepal. This entails that if Nepal is keen to set its objective of enhancing human capability as a key and basic indicator of economic development, it is necessary to increase economic growth rate from the present extremely low level (2.5 – 3.5%). In addition, it is also equally urgent need to increase the share of public expenditure on health and education sector. The public expenditures on health and education as percent of GDP in recent years are not encouraging for achieving higher HDI. Thus, the government expenditures on education and health, as percentages of GDP, should be increased to improve the living standard of people.

The Human Development Index is not improving as expected because the policies of the past have not addressed exclusion and inequalities effectively. This research has special focus on the equitable increase in income, health and education which could improve the quality of human development.

The Human Development will improved in the country if and only if peace is maintained. The days came that country needed to commit economic right of the people through which income pushed up. This research has repeatedly pointed out, only increase in income does not increase HDI. Without peace, human development is not possible and without human development, peace is not sustainable in the same way without rural development there will be not possible the overall development of nation as more than 75 percent lives in rural areas. Nevertheless, the research also recognizes that the per capita income cannot alone increase human development unless without increasing other two component education index and life expectancy index.

Twenty five years have passed since the SAAARC established but concrete result achieved for the advanced and well being of the people of the region have been modest. The widespread prevalence of inter and intra state conflict is stumbling blocks in the

human development of SAARC. SAARC is suffering from Indo-centricity of the region on respect of human development of the region. Human Progress is neither automatic nor inevitable. The rising economic prosperity will go hand-in-hand with mounting threats to human development today and the well-being of future generation. Without economic development, human development is not possible and without human development, economic development is not sustainable.

Human development situation in SAARC is discouraging and need to focus grass root level on making and implementing policies if the countries and the region. Most importantly, lasting peace and huge investment is the dire need of SAARC region to improve human development situation in the region. To improve the condition of HD in the SAARC, as more than 75 percent of people live in the rural areas without whose economic development will not possible to developed as expected Human Development. This study shows that there is a strong relationship among the selected human development indicators such as education, life expectancy index, human development index, and GDP during the period 1990-2013. The estimated results indicate that higher GDP growth rate is needed to enhance human capability by increasing public as well as private investments in education and health.

This research out Human development indicators such as educational index, life expectation index and human development index is closely related to the real GDP of Nepal which are as closely related to rest of the SAARC countries. If SAARC regions keen to develop HDI, countries must raised human development indicators such as well being, empowerment and justice along with raising Life Expectancy, Literacy level and Income of the people.

### **6.3 Recommendations**

1. It is necessary to eliminate inefficiencies of economy and also necessary to curtail unnecessary public expenditure on defense, security and prestigious projects and loss bearing public enterprises.
2. In order to improve the condition of health, it is necessary to give top most priority in primary and preventive health care, environmental health education, access to pure drinking water and sanitation, epidemic control and nutrition.
3. In order to increase educational status it is necessary to give high priority in basic and primary education, adult education, female education, technical and vocational education, special education etc.
4. Government should spend at least 5% of national income on social priority areas such as basic and primary education, literacy, primary and preventive health care, family planning, safe drinking water, women skill development, job oriented vocational training etc.
5. We know that real GDP plays vital role to improve HDI. To attain, the high level of economic growth rate, the government should create good environment for foreign investors and inspire them to invest in social priorities areas and also formulate appropriate policy to encourage domestic investors.

By now, it is clear that only policies on paper can do nothing. If the policy is not followed in designing & appropriate program for action, we will not achieve desired result. If the policy makers and implementation body do not give highest priority for human development, then we are bound to be trapped in slow growth rate. Therefore, apart from formulation of pro poor, pro human development policies, there is also a need for strictly implementing them. SAARC is in the need of steady and stable economic growth which is yet to improve high level of HDI. The value of economic growth lies in using the resources resulting from the expansion for the purpose of Human Development.

## APPENDIX

### ILLUSTRATION OF HDI METHODOLOGY

#### HDR 1990

According to this report human development index is constructed in three steps. The first step is to define a measure of deprivation that a country suffers in each of the three basic variables – life expectancy ( $x_1$ ), literacy ( $x_2$ ), and (the log of) real GDP per capita ( $x_3$ ). A maximum and minimum value is determined for each of the three variables given the actual values. The deprivation measure then places a country in the range of zero to one as defined by the difference between the maximum and minimum. Thus,  $I_{ij}$  is the deprivation indicator for the  $j^{\text{th}}$  country with respect to the  $i^{\text{th}}$  variable and it is defined as:

$$I_{ij} = \frac{(\max_j x_{ij} - x_{ij})}{(\max_j x_{ij} - \min_j x_{ij})} \text{----- (1)}$$

The second step is to define an average deprivation indicator ( $I_j$ ). This is done by taking a simple average of the three indicators.

$$I_j = \sum_{i=1}^3 I_{ij} \text{----- (2)}$$

The third step is to measure the human development index as one minus the average deprivation index.

$$(HDI)_j = (1 - I_j) \text{----- (3)}$$

**Major goal posts which were used to calculate HDI by HDR 1990**

Maximum life expectancy (years) = 78.4

Minimum life expectancy (years) = 41.8

Maximum adult literacy rate = 100.0

Minimum adult literacy rate = 12.3

Maximum real GDP per capita (log) = 3.68

Minimum real GDP per capita (log) = 2.34

Based on these above information we are going to calculate the HDI for Nepal given by HDR 1990. Actual life expectancy, literacy and real GDP OF Nepal are as follow:

Life expectancy (Years) = 52 years (1987)

Literacy (%) =26(1985)

GDP (log) = 2.86 (1987)

**Step 1:**

★ Nepal's life expectancy deprivation

$$\square \frac{78.4 - 52}{78.4 - 42} \square \frac{26.4}{36.4} \square 0.73$$

★ Nepal's literacy deprivation

$$\square \frac{100 - 26}{100 - 12.3} \square \frac{74}{87.7} \square 0.84$$

★ Nepal's GDP deprivation

$$\square \frac{3.68 \square 2.86}{3.68 \square 2.34} \square \frac{0.82}{1.34} \square 0.61$$

**Step 2:**

Nepal's average deprivation

$$\square \frac{0.73 \square 0.84 \square 0.61}{3} \square 0.727$$

**Step 3:**

Nepal's HDI = 1 - 0.727

$$= 0.273$$

### **HDR 1991, 1992 and 1993**

These three Human Development Reports adopted the same process for calculating HDI which we have discussed above (HDR, 1990), with taking the different goalposts. Here, for sake of simplicity we are going to discuss HDR1992 and 1993.

### **HDR 1992**

In calculating the HDI of Nepal using the improved variables and the following steps were taken.

#### **Goalposts:**

Maximum life expectancy (years) = 78.6

Minimum life expectancy (years) = 42.0

Maximum education attainment = 3.00

Minimum education attainment	= 0.00
Maximum country adjusted real GDP per capita (US\$)	= 5, 079
Minimum country adjusted real GDP per capita (US\$)	= 380

**Calculating HDI:**

Life expectancy of Nepal	= 52.2 (1990)
Educational attainment of Nepal	= 0.35 (1990)
GDP per capita of Nepal	= 896 (1989)

**Step 1:**

(i) Nepal's life expectancy deprivation

$$\square \frac{78.6 \square 52.2}{78.6 \square 42.0} \square \frac{26.4}{36.6} \square 0.72$$

(ii) Nepal's literacy deprivation

$$\square \frac{3.00 \square 0.35}{3.00 \square 0.00} \square \frac{2.65}{3.00} \square 0.88$$

(iii) Nepal's GDP deprivation

$$\square \frac{5079 \square 896}{5079 \square 380} \square \frac{4183}{4699} \square 0.89$$

**Step 2:**

$$\text{Nepal's average deprivation} \square \frac{0.72 \square 0.88 \square 0.89}{3} = 0.83$$

### Step 3:

$$\begin{aligned}\text{Nepal's HDI} &= 1 - 0.83 \\ &= 0.273\end{aligned}$$

### HDR 1993

#### Goalposts

Maximum life expectancy (Years) = 78.6

Minimum life expectancy (Years) = 42.0

Maximum educational attainment = 3.00

Minimum educational attainment = 0.00

Maximum real GDP (US\$) = 5,075

Minimum real GDP (US\$) = 367

#### Calculating HDI

Educational attainment of Nepal = 0.35 (1990)

Real GDP per capita of Nepal (PPPUS\$) = 920 (1990)

Life expectancy of Nepal (years) = 52.2 (1990)

### Step 1:

(i) Nepal's life expectancy deprivation

$$\square \frac{78.6 \square 52.2}{78.6 \square 42.0} \square \frac{26.4}{36.6} \square 0.72$$

(ii) Nepal's literacy deprivation

$$\square \frac{3.00 \square 0.35}{3.00 \square 0.00} \square \frac{2.65}{3.00} \square 0.88$$

(iii) Nepal's real GDP deprivation

$$\square \frac{5,075 \square 920}{5,075 \square 367} \square \frac{4,155}{4,708} \square 0.88$$

**Step 2:**

$$\text{Nepal's average deprivation} \square \frac{0.72 \square 0.88 \square 0.88}{3} \square 0.827$$

**Step 3:**

Nepal's HDI for 1990 = 1-0.827

$$= 0.17$$

#### **HDR 1994**

HDR 1994 calculated the HDI for 1991 on a different basis from that in previous years. Maximum and minimum values have been fixed for the four basic variables-

<b>Variables</b>	<b>Maximum</b>	<b>Minimum</b>
Life expectancy(Years)	85	25
Adult literacy (%)	100	0
Mean years of schooling (%)	15	0
Real GDP	\$40,000	\$200
Adjusted income	= 5,385	\$100

### Calculating HDI

Life expectancy for Nepal = 52.7 (1992)

Educational attainment for Nepal = 0.68 (1992)

Real GDP for Nepal = 1,130 (1991)

(i) Life expectancy index

$$\square \frac{52.7 \square 25.0}{85.0 \square 25.0} \square \frac{27.7}{60} \square 0.46$$

(ii) Mean years of schooling index

$$\square \frac{2.1 \square 0.0}{15.0 \square 0.0} \square 0.14$$

(iii) Adult literacy index

$$\square \frac{27.0 \square 0.0}{100 \square 0.0} \square 0.27$$

$$\text{Educational attainment index} \square \frac{2(0.27) \square 1(0.14)}{3} \square 0.227$$

(iv) Adjusted income  $\square \frac{1130 \square 200}{5,385 \square 200} \square \frac{930}{5,185} \square 0.179$

$$\square \text{HDI (1991)} \square \frac{0.46 \square 0.227 \square 0.179}{3}$$

□ 0.289

### HDR 1995

Since, from the 6<sup>th</sup> publication of HDR in 1995, UNDP started to calculate each index separately. Although, there is no uniformity to calculate the GDP index. HDR 1994 to 1998 has used the following formula to measure the GDP index. i.e.

$$\text{GDPI} \square \frac{\text{Actual value} - \text{Minimum value}}{\text{Adjusted value} - \text{Minimum value}}$$

Where,

$$\text{Adjusted value} = 6311$$

$$\text{Minimum value} = 100$$

$$\text{Actual value} = 1170$$

$$\square \text{GDPI} \square \frac{1170 \square 100}{6311 \square 100} \square \frac{1070}{6211} \square 0.17$$

We can find the educational index and life expectancy index based on the goalposts which are presented in HDR 1994. HDR 1995 calculated the HDI for 1992 which is equal to 0.343.

### HDR 1999-2012

During this period, to measure the educational index and life expectancy index using the formula given by the HDR 1994. But, in case of calculating GDPI the following formula has been used i.e.

$$\text{GDPI} \square \frac{\log(\text{Actual value} - \text{Minimum value})}{\log(\text{Maximum value} - \text{Minimum value})}$$

By using this above formula we have already find the GDPI for 2006 in 5.1.4. and in the same way we can find GDPI for 2012.

HDR	Main Theme	Country	Highest		Lowest		HDI Value
			HDI Value	Country	HDI Value	Country	
1990	Concept and measurement of Human Development	130	0.996	Japan	0.116	Niger	0.27
1991	Financing human development	160	0.993	”	0.048	Sierra Leone	0.15
1992	Global dimensions of human development	160	0.982	Canada	0.052	Guinea	0.16
1993	People’s participation	173	0.983	Japan	0.045	”	0.17
1994	New dimensions of human security	173	0.932	Canada	0.191	”	0.28
1995	Gender and human development	174	0.950	”	0.207	Niger	0.34
1996	Economic growth and human development	174	0.951	”	0.204	”	0.33
1997	Human development to eradicate poverty	174	0.960	”	0.176	Sierra Leone	0.34
1998	Consumption for human development	174	0.960	”	0.185	”	0.35
1999	Globalization with a human face	174	0.932	”	0.254	”	0.46
2000	Human rights and human development	174	0.935	”	0.252	”	0.47
2001	Making new technologies work for human development	162	0.939	Norway	0.258	”	0.48
2002	Deepening new technologies in a fragmented world	174	0.942	”	0.275	”	0.49
2003	MDGs- ‘A compact among nations to end human poverty’	175	0.944	”	0.275	”	0.49
2004	Cultural liberty in today’s diverse world	177	0.956	”	0.273	”	0.50
2005	International cooperation at a crossroads Aid, trade and security in an unequal world	177	0.963	”	0.281	Niger	0.52
2006	Beyond Scarcity : Power, Poverty and the Global water crisis.	177	0.965	”	0.311	”	0.52
2007/08	Fighting Climate Change : Human	177	0.968	Ireland	0.366	Sierra	0.53

	Solidarity in a divided world					Leone	
2009	Human Development on the move	182	0.971	Norway	0.340	Niger	0.52
2010	The Real Wealth of Nation : Pathways to Human Development.	169	0.938	Norway	0.140	Zimbabwe	0.53
2011	Sustainability and Equity : A Better Future for All.	187	0.943	Norway	0.286	Congo	0.45
2013	The Rise of the South : Human Progress in a Diverse World.	186	0.955	Norway	0.304	Niger	0.46



Human development index across five development regions, Nepal, 2010



*Copy to Appendix*

## 4.2 Country-wise Trend of Human Development Indicators.

### 4.2.1. Bangladesh

HDR years	Life Expectancy Index	Educational Index	GDP index	HDI value	HDI Rank	Total No. of Country
1990	-	-	-	0.318	117	130
1991	-	-	-	0.186	136	160
1992	-	-	-	0.189	147	173
1993	-	-	-	0.185	135	160
1994	-	-	-	0.309	146	173
1995	0.51	0.37	0.21	0.364	146	174
1996	0.52	0.38	0.20	0.365	146	174
1997	0.52	0.38	0.20	0.368	144	175
1998	0.53	0.38	0.21	0.371	147	174
1999	0.55	0.38	0.39	0.440	150	174
2000	0.56	0.39	0.44	0.461	146	174
2001	0.57	0.39	0.45	0.470	132	162
2002	0.52	0.40	0.46	0.478	145	173
2003	0.59	0.45	0.46	0.502	139	175
2004	0.60	0.45	0.47	0.509	138	177
2005	0.63	0.45	0.48	0.520	139	177
2006	0.64	0.46	0.49	0.530	137	177
2007/08	0.635	0.503	0.504	0.547	140	177
2009	0.644	0.521	0.511	0.543	146	182
2010	0.648	0.528	0.514	0.469	129	169
2011	0.689	0.559	0.526	0.500	146	187
2013	0.692	0.564	0.532	0.515	146	186

Source: HDR 1990-2013

### 4.2.2. Bhutan

<b>HDR years</b>	<b>Life Expectancy Index</b>	<b>Educational Index</b>	<b>GDP index</b>	<b>HDI value</b>	<b>HDI Rank</b>	<b>Total No. of Country</b>
<b>1990</b>	-	-	-	0.235	119	130
<b>1991</b>	-	-	-	0.159	144	160
<b>1992</b>	-	-	-	0.150	159	173
<b>1993</b>	-	-	-	0.146	147	160
<b>1994</b>	-	-	-	0.247	162	173
<b>1995</b>	0.43	0.36	0.12	0.305	160	174
<b>1996</b>	0.43	0.37	0.12	0.307	159	174
<b>1997</b>	0.44	0.38	0.20	0.338	155	175
<b>1998</b>	0.45	0.39	0.21	0.347	155	174
<b>1999</b>	0.60	0.33	0.45	0.459	145	174
<b>2000</b>	0.60	0.39	0.46	0.483	142	174
<b>2001</b>	0.61	0.39	0.43	0.477	130	162
<b>2002</b>	0.62	0.42	0.44	0.494	140	173
<b>2003</b>	0.62	0.42	0.49	0.511	136	175
<b>2004</b>	0.63	0.48	0.50	0.536	134	177
<b>2005</b>	0.63	0.48	0.58	0.545	134	177
<b>2006</b>	0.64	0.48	0.50	0.538	135	177
<b>2007/08</b>	0.662	0.485	0.589	0.579	133	177
<b>2009</b>	0.672	0.490	0.592	0.619	132	182
<b>2010</b>	0.672	0.501	0.597	0.518	132	169
<b>2011</b>	0.673	0.528	0.597	0.522	141	187
<b>2013</b>	0.676	0.536	0.598	0.538	140	186

Source: HDR 1990-2013

### 4.2.3. India

<b>HDR years</b>	<b>Life Expectancy Index</b>	<b>Educational Index</b>	<b>GDP index</b>	<b>HDI value</b>	<b>HDI Rank</b>	<b>Total No. of Country</b>
<b>1990</b>	-	-	-	0.439	94	130
<b>1991</b>	-	-	-	0.308	123	160
<b>1992</b>	-	-	-	0.309	134	173
<b>1993</b>	-	-	-	0.297	121	160
<b>1994</b>	-	-	-	0.382	135	173
<b>1995</b>	0.59	0.52	0.21	0.439	134	174
<b>1996</b>	0.60	0.52	0.19	0.436	135	174
<b>1997</b>	0.60	0.53	0.21	0.466	138	175
<b>1998</b>	0.61	0.53	0.21	0.541	139	174
<b>1999</b>	0.63	0.54	0.47	0.545	132	174
<b>2000</b>	0.63	0.55	0.51	0.563	128	174
<b>2001</b>	0.63	0.56	0.52	0.571	115	162
<b>2002</b>	0.64	0.57	0.53	0.577	124	173
<b>2003</b>	0.64	0.57	0.56	0.590	127	175
<b>2004</b>	0.64	0.59	0.55	0.595	127	177
<b>2005</b>	0.64	0.61	0.56	0.602	127	177
<b>2006</b>	0.64	0.61	0.58	0.611	126	177
<b>2007/08</b>	0.645	0.620	0.591	0.619	128	177
<b>2009</b>	0.651	0.627	0.598	0.612	134	182
<b>2010</b>	0.674	0.631	0.604	0.519	119	169
<b>2011</b>	0.654	0.628	0.612	0.547	134	187
<b>2013</b>	0.658	0.629	0.622	0.554	136	186

Source: HDR 1990-2013

#### 4.2.4.Maldives

<b>HDR years</b>	<b>Life Expectancy Index</b>	<b>Educational Index</b>	<b>GDP index</b>	<b>HDI value</b>	<b>HDI Rank</b>	<b>Total No. of Country</b>
<b>1990</b>	-	-	-	-	-	-
<b>1991</b>	-	-	-	0.534	93	160
<b>1992</b>	-	-	-	0.497	112	173
<b>1993</b>	-	-	-	0.490	99	160
<b>1994</b>	-	-	-	0.511	118	173
<b>1995</b>	0.62	0.84	0.21	0.354	118	174
<b>1996</b>	0.62	0.85	0.32	0.610	107	174
<b>1997</b>	0.63	0.86	0.35	0.611	111	175
<b>1998</b>	0.64	0.86	0.55	0.683	95	174
<b>1999</b>	0.66	0.89	0.60	0.716	93	174
<b>2000</b>	0.67	0.89	0.62	0.725	89	174
<b>2001</b>	0.68	0.90	0.63	0.739	77	162
<b>2002</b>	0.69	0.90	0.63	0.739	84	173
<b>2003</b>	0.70	0.91	0.65	0.751	86	175
<b>2004</b>	0.70	0.91	0.65	0.752	84	177
<b>2005</b>	0.69	0.90	0.65	0.745	96	177
<b>2006</b>	0.70	0.87	0.65	0.739	98	177
<b>2007/08</b>	0.701	0.862	0.639	0.741	100	177
<b>2009</b>	0.734	0.879	0.642	0.771	95	182
<b>2010</b>	0.746	0.891	0.656	0.602	107	169
<b>2011</b>	0.768	0.984	0.688	0.661	109	187
<b>2013</b>	0.771	0.989	0.691	0.689	104	186

Source: HDR 1990-2013

#### 4.2.5.Nepal

<b>HDR years</b>	<b>Life Expectancy Index</b>	<b>Educational Index</b>	<b>GDP index</b>	<b>HDI value</b>	<b>HDI Rank</b>	<b>Total No. of Country</b>
<b>1990</b>	-	-	-	0.273	114	130
<b>1991</b>	-	-	-	0.158	145	160
<b>1992</b>	-	-	-	0.170	152	173
<b>1993</b>	-	-	-	0.168	140	160
<b>1994</b>	-	-	-	0.289	149	173
<b>1995</b>	0.48	0.36	0.20	0.343	151	174
<b>1996</b>	0.48	0.37	0.15	0.332	151	174
<b>1997</b>	0.51	0.36	0.17	0.347	154	175
<b>1998</b>	0.52	0.37	0.17	0.351	152	174
<b>1999</b>	0.54	0.45	0.40	0.463	144	174
<b>2000</b>	0.55	0.46	0.41	0.474	144	174
<b>2001</b>	0.55	0.47	0.42	0.480	129	162
<b>2002</b>	0.56	0.48	0.43	0.490	142	173
<b>2003</b>	0.57	0.50	0.43	0.499	143	175
<b>2004</b>	0.58	0.50	0.44	0.504	140	177
<b>2005</b>	0.61	0.53	0.44	0.526	136	177
<b>2006</b>	0.62	0.51	0.45	0.527	138	177
<b>2007/08</b>	0.626	0.518	0.458	0.534	142	177
<b>2009</b>	0.653	0.521	0.588	0.553	144	182
<b>2010</b>	0.675	0.527	0.462	0.428	138	169
<b>2011</b>	0.688	0.591	0.486	0.458	157	187
<b>2013</b>	0.691	0.598	0.492	0.463	157	186

Source: HDR 1990-2013

#### **4.2.6. Pakistan**

<b>HDR years</b>	<b>Life Expectancy Index</b>	<b>Educational Index</b>	<b>GDP index</b>	<b>HDI value</b>	<b>HDI Rank</b>	<b>Total No. of Country</b>
<b>1990</b>	-	-	-	0.423	95	130
<b>1991</b>	-	-	-	0.311	120	160
<b>1992</b>	-	-	-	0.311	132	173
<b>1993</b>	-	-	-	0.305	120	160
<b>1994</b>	-	-	-	0.393	132	173
<b>1995</b>	0.61	0.32	0.52	0.483	128	174
<b>1996</b>	0.61	0.37	0.35	0.442	134	174
<b>1997</b>	0.62	0.37	0.34	0.445	139	175
<b>1998</b>	0.63	0.39	0.34	0.453	138	174
<b>1999</b>	0.65	0.41	0.46	0.508	138	174
<b>2000</b>	0.66	0.44	0.47	0.522	135	174
<b>2001</b>	0.58	0.43	0.49	0.498	127	162
<b>2002</b>	0.58	0.42	0.49	0.499	138	173
<b>2003</b>	0.59	0.41	0.49	0.499	144	175
<b>2004</b>	0.60	0.40	0.49	0.497	142	177
<b>2005</b>	0.63	0.44	0.51	0.527	135	177
<b>2006</b>	0.64	0.46	0.52	0.539	134	177
<b>2007/08</b>	0.659	0.466	0.528	0.551	136	177
<b>2009</b>	0.671	0.473	0.529	0.572	141	182
<b>2010</b>	0.674	0.479	0.536	0.490	125	169
<b>2011</b>	0.657	0.482	0.549	0.515	146	187
<b>2013</b>	0.654	0.555	0.554	0.504	145	186

Source: HDR 1990-2013

#### **4.2.7. Sri Lanka**

<b>HDR years</b>	<b>Life Expectancy Index</b>	<b>Educational Index</b>	<b>GDP index</b>	<b>HDI value</b>	<b>HDI Rank</b>	<b>Total No. of Country</b>
<b>1990</b>	-	-	-	0.789	47	130
<b>1991</b>	-	-	-	0.665	75	160
<b>1992</b>	-	-	-	0.663	86	173
<b>1993</b>	-	-	-	0.651	76	160
<b>1994</b>	-	-	-	0.665	90	173
<b>1995</b>	0.78	0.82	0.51	0.704	97	174
<b>1996</b>	0.78	0.82	0.49	0.698	89	174
<b>1997</b>	0.79	0.82	0.52	0.711	91	175
<b>1998</b>	0.79	0.83	0.53	0.716	90	174
<b>1999</b>	0.80	0.82	0.54	0.721	90	174
<b>2000</b>	0.81	0.83	0.57	0.733	84	174
<b>2001</b>	0.78	0.84	0.58	0.735	81	162
<b>2002</b>	0.79	0.84	0.59	0.741	89	173
<b>2003</b>	0.79	0.82	0.58	0.730	99	175
<b>2004</b>	0.79	0.83	0.60	0.740	96	177
<b>2005</b>	0.82	0.83	0.61	0.751	93	177
<b>2006</b>	0.82	0.81	0.63	0.755	93	177
<b>2007/08</b>	0.776	0.814	0.639	0.743	99	177
<b>2009</b>	0.789	0.824	0.641	0.759	102	182
<b>2010</b>	0.798	0.847	0.644	0.658	91	169
<b>2011</b>	0.749	0.906	0.682	0.691	97	187
<b>2013</b>	0.751	0.928	0.693	0.751	92	186

Source: HDR 1990-2013

**General Information of SAARC Countries:**

Index Country	Area per Sq. Km	Capital city	Language	Religion	Currency	Far from Kathmandu (KM)	Foreign Relation with Nepal	HDI Value 2010	HDI Rank in 2010
Afganistan	6,47,500	Kabul	Dari Persain	Islamic	Afgani	1710		0.349	155
Bangladesh	1,43,356	Dhaka	Bengali	Islamic	Taka	664	8 April 1972	0.469	129
Bhutan	46,620	Thimpu	Jongkha	Buddhist	Neguldum	429	3 June	-	-

							1983		
India	32,87,263	New Delhi	Hindi	Hindu	Rupay	799	13 June 1947	0.519	119
Maldives	298	Male	Dubehi	Islamic	Rupe	2708	1 August 1980	0.602	107
Nepal	1,47,181	Kathmandu	Nepali	Hindu	Rupaya	-	-	0.428	138
Pakistan	8,03,936	Islamabad	Urdu	Islamic	Rupe	1339	20 March 1960	0.490	125
Sri Lanka	65,610	Colombo	Singhali	Buddhist	Rupe	2381	1 July 1957	0.658	91

## REFERENCES

- Aryal, Jeetendra Prakash and Arun Gautam (2001). *Quantitative Techniques*, New Hira Books Enterprises, Kathmandu, Nepal.
- Batra, Hemanta K (2000) : Human Development in India and SAARC, South Asia, Gurgaon, India.
- Berk, Jerrold (1992). Strategy paper on poverty Alleviation and Human Development in proceeding of National Seminar NPC/WB/UNDP, Kathmandu, June.
- CBS (2002). National Report – population census 2001. Kathmandu: National Planning Commission.

- CBS/NPC/HMGN (2003). Population Monograph of Nepal vol. I and vol. II. Central Bureau of Statistics Kathmandu, Nepal.
- Dhungel, K.R. (1998). "Human Development in Nepal: Advancement and Distress" in VIKAS. A Journal of People, Environment and Development. 17(2), National Planning Commission.
- Economic Survey (FY 2008/09). HMG Ministry of Finance, Kathmandu, 2005.
- Gujarati, Damodar N. (2003). Basic Econometrics. McGraw Hill Companies Singapore.
- Gurugharana, Kishore Kumar (1992). Strategy paper on poverty Alleviation and Human Development in proceeding of National seminar NPC/UNDP/WB, Kathmandu, June.
- Gurugharana, Kishore Kumar (1995). Poverty Alleviation and Human Development; The Nepalese case, Future of Nepalese Economy. Ed. Madan Kumar Dahal, Kathmandu. NEFAF/FES 1993).
- Haq. Mahbub Ul (1997). Human Development in South Asia. Karachi: Oxford University Press.
- Haq. Mahbub Ul (1999). Reflections on Human Development. Oxford University Press.
- HMGN/CBS (2003/04). Nepal Living Standard Survey, vol. I and vol. II. Central Bureau of Statistics, 2004.
- HMGN/CBS/NPC (2005). Statistical Year Book of Nepal, 2005. Central Bureau of Statistics, Thapathali, Kathmandu.
- HDR news, A quarterly Publication of SAARC, Human Development Resource Development centre Islamabad, Pakistan.
- Kanel, Nav R. (2003). Guidelines to Format Thesis and Dissertations. New Hira Books Enterprises. Kathmandu, Nepal, 2003.
- National Planning Commission (2002). The Tenth Plan (2002-2007). His Majesty's Government (HMG), National Planning Commission (NPC), Nepal.
- Pradhan, Bishwa (1989). SAARC and its Future, Musium Road, Chhauni, Kathmandu, Nepal
- SAARC Information Bulletin, Quarterly Publication of SAARC information centre (SIC) Media Village, Tilganga, Kathmandu, Nepal.
- SAARC Journal of Human Resouce Development (SJHRD), SAARC Human Resource Development centre (SHRDC) Islamabad, Pakistan
- SAARC News, News Latter of South Asian Association for Regional Cooperation, SAARC Secretariat, Kathmandu, Nepal.

Sen, Amartya (1999). Assessing Human Development in Human Development Report (1999). Oxford University Press.

Sharma, Keshab (2010), Human Development in Nepal (After the Restoration of Democracy:1990), Central Deptt. Of Rural Development, University Campus, Tribhuvan University, Kirtipur, Kathmandu, Nepal.

SHRDC(2010) Annual Repots, SAARC Human Resource Development Centre, Park Road, Chak Shahzad, Islamabad, Pakistan.

Syed, M H (2003). SAARC Challenges ahead, Kilaos Books, Daryaganj, New Delhi, India

Thapa, Shyam (1995). Life is Shorter for Some. The Kathmandu Post 17<sup>th</sup> Sep, 1995.

UNDP (1990-2009). Human Development Report, Various issues. New York, Oxford University Press.

World Bank (2006). The World Development Report. Oxford University Press, 2006.

#### **WEB SITES**

[www.hdr.undp.org](http://www.hdr.undp.org)

[www.nepalresearch.com](http://www.nepalresearch.com)

[www.shrhc-isb.org.pk](http://www.shrhc-isb.org.pk)

[www.unmin.org.np](http://www.unmin.org.np)

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[www.saarc-sic.org](http://www.saarc-sic.org)