NEGA

NEPAL ECONOMIC GROWTH AGENDA

REPORT, 2012

AGRICULTURE

EDUCATION

HYDROPOWER

INFRASTRUCTURE (TRANSPORT)

TOURISM

Federation of Nepalese Chambers of Commerce & Industry (FNCCI)

Samriddhi, The Prosperity Foundation

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NEPAL ECONOMIC GROWTH AGENDA (NEGA)

REPORT, 2012

Federation of Nepalese Chambers of Commerce & Industries (FNCCI)
Samriddhi, The Prosperity Foundation

FOREWORD

Nepal has come a long way in establishing a new political structure to address manifold issues and concerns of various segments of the society. However, the political changes can only be sustainable if it results in economic growth which ensures better opportunities and prosperity to the people. The recent examples of the countries including those of our immediate neighbours suggest that priority to the economic agenda is a key to becoming a successful and prosperous nation. These very examples also indicate that private sector is the engine of growth and facilitating role of government in the process can lead to greater economic and social achievements.

In case of Nepal, it has already been more than six years since the major political change occurred and the transition seems to be getting longer by the day. The alarming fact in this context is that only political agendas receive priority and economic issues are left for future. This could mean a longer courtship with poverty for Nepal. Therefore, the Federation of Nepalese Chambers of Commerce and Industry (FNCCI) as the representative body of the private sector and Samriddhi, The Prosperity Foundation as a public policy think tank, came together to initiate the process of bringing Nepal's economic agendas to the forefront. This attempt has resulted into the Nepal Economic Growth Agenda (NEGA), 2012.

With the Nepal Economic Growth Agenda, 2012, we have examined the five priority sectors (Agriculture, Education, Hydropower, Infrastructure and Tourism) and looked at it from a growth perspective. Giving the recent picture of these sectors, we have identified the policy bottlenecks in the growth of these sectors and have offered practical recommendations. We believe that FNCCI and Samriddhi's partnership through NEGA 2012 has initiated a new approach for civil society participation in the policy making process of Nepal where the private sector has teamed up with an independent think tank to offer study based recommendations. The NEGA 2012 also has five separate academic papers on the five sectors which entail the details of the study and the findings. Hence, we believe that these will be key documents in helping the policymakers make informed decisions in these crucial sectors of our economy.

With NEGA 2012, we are hopeful of a new beginning of a greater alliance to bring about Nepal's economic issues to the mainstream discussion. FNCCI and Samriddhi would welcome further actions and suggestions to work on these recommendations along with any other feedback. z

Suraj Vaidya
President
FNCCI

July 2012

ACKNOWLEDGEMENT

The Nepal Economic Growth Agenda (NEGA), 2012 has been a huge undertaking both for Federation of Nepalese Chambers of Commerce and Industry (FNCCI) and Samriddhi, The Prosperity Foundation. And it was with the guidance of the Advisory Board and the five Research Guides involved in the study of the five sectors that made it possible for this process to come through. We are grateful to Mr. Khem Raj Nepal for encouraging and guiding us in the initial process of this initiative. Similarly, we are extremely thankful to Morang Merchants Association, Chamber of Commerce & Industry - Chitwan, Pokhara Chamber of Commerce and Industry, Nepalgunj Chamber of Commerce & Industry and Kailali Chamber of Commerce and Industry for the indispensable help during the coordination of the regional consultations.

We also need to acknowledge the great encouragement shown by the young political and business leaders of Nepal whom we met during the process along with the experts and practitioners in the five sectors who offered us their time, knowledge and experiences during the numerous interviews. The organizations which are a part of the larger NEGA alliance have also shown great support and encouragement which will be very valuable for us in the next phase of advocacy. Finally, very special thanks to the team of professionals and young researchers for their tremendous energy, passion and hard work.

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NEPAL ECONOMIC GROWTH AGENDA
REPORT, 2012: A GLANCE

The Nepal Economic Growth Agenda, 2012 entails study and recommendations on five major sectors of the Nepalese economy, namely Agriculture, Education, Hydropower, Infrastructure (Transport) & Tourism. The five sectors were chosen through consultation with experts, researchers, government planners, entrepreneurs and various individuals and organizations also considering the contribution or role of each of these sectors in the national economy. All the sectors in the report are strictly looked upon form the perspective of economic growth and recommendations are based on how the sector can grow and consequently play a greater role in the economic growth of Nepal. Hence, all the five sectors had some key focus points.

Agriculture being the sector which constitutes one third of the GDP and employs two thirds of the work force, commercialization and increasing productivity was the issue of focus in the Agriculture sector. Some of the key challenges identified are lack of commercialization primarily arising from issues such as lack of agro inputs (fertilizer, irrigation, etc.), market access and market development, risk management (insurance) and lack of research and extension. Hence, recommendations are proposed to increase access to inputs, develop insurance programs, develop market centers and enhance research and extension through private sector involvement.

Similarly, meeting the market demand of skilled human resource through education, i.e. the economic outcome of education was chosen as a focal point in Education. While some of the major challenges in this sector are lack of skilled human resource in the labor force arising from huge drop-out rates, lack of adequate return compared to the public spending on education and other issues related to investment and promotion of technical and skill based training and education, recommendations are centered around promoting private sector in addressing these challenges, developing a national qualification system, introducing flexible means to incorporate non formal modes to enhance skill development for market outcomes and implementing alternative spending modes such as education voucher system to increase productivity of government spending.

As the country has been facing the worst form of energy crisis since the past decade and despite hydropower being one of the sectors of comparative advantage for Nepal, the growth in the sector has been below expectation. Investment prospects and challenges was the key focus on this sector in NEGA, 2012. Apparently, as big hydropower projects which are needed to fulfill the current energy demand of Nepal need investments as huge as NRs. 150 million per Megawatt, the domestic investment is not sufficient and Foreign Direct Investment (FDI) is lagging owing to reasons pointed out in the sector. Hence, recommendations are proposed based on those specific hurdles which are pointed out in this report.

Access to quality and affordable transport infrastructure is another pre-requisite for generating economic activities and growth in all sectors. It is also crucial in reducing poverty and delivering services to ensure a basic standard of living. Hence, transport infrastructure has been taken as one of the five sectors in NEGA, 2012. However, in the light of the fact that investment in transport infrastructure is inadequate compared to the desired rate of economic growth and utilization is a key issue in road transport sector, focus is set on private sector involvement. Recommendations have been proposed to help transport infrastructure increase economic activities and returns for people

and involve private sector to help fulfill the resource gap.

Similarly, as a sector that plays a vital role in sustenance and advancement of Nepalese economy and is widely recognized as one of the sectors with high growth potential and comparative advantage, Tourism was one of the key five sectors in NEGA 2012. Also being the highest contributors of foreign exchange reserves after the remittance income, the main focus on tourism was around increasing the economic contribution on economy.

Though the issues and challenges identified in all the five sectors of NEGA, 2012 are diverse and unique, some of the major challenges remained common. These were identified as lack of business friendly environment with issues such as frequent bandhs (strikes), issues of labor and political interference. Similarly, financial constraints and financial risk sharing remained common in sectors like Hydropower and Infrastructure which requires long term investment and relatively longer gestation periods. While access to land was identified as one of the key issues in agriculture, other land related issues were existent such as Right of Way and land acquisition for road infrastructure and hydropower projects including transmission lines. Unstable and inconsistent policies were another key challenge that prevailed across sectors along with lack of implementation. Non-competitive practices were also seen across major sectors such as cartels and syndicates in the transport sector, government monopoly in agriculture (e.g. fertilizer supply) and Hydropower (e.g. transmission and distribution). Another key common challenge visible across sectors was insufficient investment as compared to the requirement, especially in Hydropower, Transport Infrastructure, Education (especially in Technical Education and Voluntary Training) andAgriculture (especially Research and Extension).

The process of study and consultations in these five sectors have lead to a comprehensive analysis of the status and the prevailing challenges in the growth of these five of the most growth promising sectors for Nepal's economic growth. With this analysis, recommendations have been proposed to remove the hurdles and introduce new ideas to build on the potential in these areas. With this, NEGA, 2012 is expected to be a key document of reference in the policymaking process ensuring better informed decisions when it comes to making choices for economic growth.

NEPAL ECONOMIC GROWTH AGENDA AN INTRODUCTION

The Nepal Economic Growth Agenda (NEGA) is an initiative of the Federation of Nepalese Chambers of Commerce and Industry (FNCCI) and Samriddhi, The Prosperity Foundation to create a discourse in Nepal's priority economic issues. After the beginning of a new political era in 2006, Nepal has come a long way in establishing a new political structure to address various issues and perspectives during the transitional phase. However, for the political changes to sustain and deliver, the economic growth should follow accordingly. In this context, FNCCI as a representative body of the private sector and Samriddhi as an independent think tank working on political economic issues initiated the Nepal Economic Growth Agenda which is basically the study of priority issues concerning Nepal's economic growth and subsequently proposing recommendations based on the study.

The Process

In this collaborative effort of building the Nepal Economic Growth Agenda, a certain process was followed to ensure the report was as comprehensive as possible. Hence, building the Nepal Economic Growth Agenda has followed the following process:

Individual Consultations

Individuals with knowledge and experience in sectors such as economics, journalism, trade, hydropower, energy, infrastructure, education, mining, tourism, banking, bureaucracy, law, etc. were consulted in order to discuss potential sectors on which NEGA could focus. Simultaneously, literature review was also done to identify the potential sectors which could highly contribute to the economic growth of Nepal.

Some pockets of individuals consulted were :

- Academicians & Political Analysts (Mostly economists but with representation from Social Science and Political Science field)
- Parliamentarians & representative economists of different parties
- Business community

These consultations helped identify the initial list of major areas/sectors for NEGA.

Formation of the Advisory Board

At the initial stage, Samriddhi formed an Advisory Board of experts from the political, academic and private arena who would be able to guide the process with their extensive knowledge and experience. The Advisory Board (see Annex I) members help the process by providing necessary guidance as well as gathering information and establishing network for advocacy.

National Level Consultations for sector identification (Annex III a)

Two national level consultations were organized amidst individuals and organizations representing different parts of the nations and different sectors. This helped in prioritizing sectors. While many sectors brought into discussion in the national consultation matched the sectors highlighted in individual consultations, other new suggestions on possible sectors also emerged. However, this national level discussion was key in choosing the five sectors which would eventually become NEGA's research sectors.

Finalization of the Sectors

Following numerous individual consultations, discussions with the Advisory Board and the national consultations mentioned above, five priority sectors for Nepal Economic Growth Agenda were chosen as:

1) Agriculture
2) Education
3) Hydropower
4) Infrastructure
5) Tourism

Research on the Sectors

A Research Guide for each of the five sector was identified who was assisted by a Research assistant. Five research guides with five Research Assistants then conducted research on these sectors to produce five academic papers which assessed the existing situation, policies and programmes to identify bottlenecks and hurdles in the growth.

Consultations for NEGA recommendations

Five consultation round tables were organized with the experts and stakeholders on the five identified sectors at national level (Annex III b). Similarly, five regional consultations were held in the five regional hubs of Nepal bringing in perspectives from across the country (Annex III c). This was followed by another national consultation to further revise the recommendations (Annex III d).

The objective of these consultation round tables was to identify the key issues in the related sectors and a list of policy recommendations. During these consultations, the participants provided their feedback to the draft document adding their own views, information and critical analysis on the draft prepared and revised by the Research Guide and Assistant at every step.

The drafts were then revised incorporating the feedbacks received from the regional consultation roundtables and the revised drafts were presented for critical analysis and feedback on a national level through another roundtable discussion.

Nepal Economic Growth Agenda (NEGA) Report

The final set of documents of NEGA, which include a main NEGA paper and five academic papers of the five sectors were prepared incorporating the feedbacks received. These documents covered all the key issues and the policy recommendations in the identified five sectors.

Methodology

As NEGA followed the overall process mentioned above, the Research on the five sectors conducted by the Research Guides and Research Assistants has been highly dependent on secondary source of data / information. Qualitative and numerical approach were main stay of the research where the secondary source for data / information have largely used the data base of relevant Ministries, Economic Survey of the Government of Nepal, publications of Nepal Rastra Bank, publications / websites of the related sectors, studies from The World Bank and other entities that conduct research, etc. Hence, analysis based on research of the existing literature on the plans, programs, policies, status and other aspects of the topic of study has been crucial.

Interviews with experts, researchers, policymakers, bureaucrats and other people in the related area have also been conducted during the process.

Limitations

Nepal Economic Growth Agenda (NEGA), as an effort to produce a concrete and concise document encompassing major challenges and recommendations in five key sectors to help initiate the process of economic growth in Nepal faces the primary limitation of including five sectors only. Similarly, in those five sectors, detailed assessments of challenges have been done in particular aspects of the sectors which are bound to miss other aspects which could also be crucial in the discussion of growth of those sectors.

The main limitation of the study conducted in the five sectors is that the study is largely based upon secondary data and primary source of information has not been used. The research being an independent task of the Samriddhi Foundation and its partners is bound to maintain its ethics of independent, neutral and applied characters in the overall process of the research study. The study was targeted to be completed in a reasonable short period with an economic package of resources with the belief that the report should be in a concise form rather than a voluminous one.

FINDINGS & RECOMMENDATIONS

AGRICULTURE

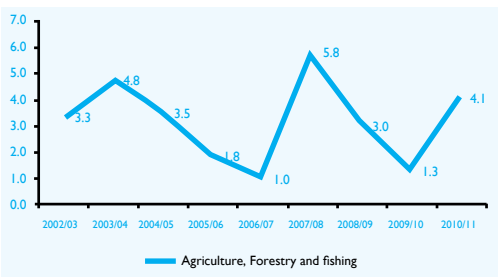
Agriculture has always been the prime source of income and employment for people in developing nations. But as these countries move towards the developed nation's list, a trend of diminishing dependence on agriculture and increasing reliance on other sectors is seen. In Nepal, a developing nation, the slow rate of agriculture can thus be regarded as one of the major reasons for the lack of economic growth of the entire country. The condition of agriculture sector in Nepal hasn't changed over a long period of time despite huge investment from both public as well as private sector. And, while the industry and service sector has been growing continuously, agriculture still remains one of the least productive sectors despite of its one-third contribution to the GDP.

1. Status of Agriculture in Nepal

1.1. Agriculture is the most dominant sector of the economy employing more than 66% of the workforce. About 74% of the total households in the country are agricultural households with land and roughly 2% are without the land[1].

1.2. Due to the growth of industry and service sector, the contribution of agriculture in GDP has been constantly declining. While in 1965 its contribution in GDP stood at 65%, in 2011 it has come down to 35% . The average growth rate of agriculture sector has been 3.18% between 2002 and 2011[2].

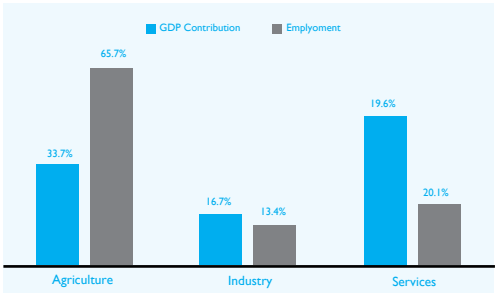
Percentage Change in Agricuture Growth of Nepal



Source: Nepal Economic Update, September 2011, The World Bank

1.3. Agriculture sector, which employs more than 66% of the workforce, contributed only 35% of the GDP, whereas services sector, which employs 20% of the total workforce contributed almost 50% of the total GDP. Further, industry sector contributed more than 15% of the GDP by employing only 13% of the workforce[3]. This indicates low productivity of the agriculture sector, which is the lowest among the countries of the region.

Structure of Output and Employment by Sector



Source: World Development Indicators, 2010

1.4. Nepal's agriculture is mainly subsistence with 85 percent of total agriculture output used for self-consumption and only 15 percent being commercialized[4].

1.5. Out of the total land owned by agriculture households', 58% are in Hills, 43% in Terai and only 9% in the Mountains. And, 91% of these lands are in rural areas.

1 Nepal Living Standard Survey 2010/11

2 Nepal Economic Update, September 2011, The World Bank

3 World Development Indicators, 2010

4 Nepal Economic Recovery Assessment, USAID

1.6. According to Nepal Living Standard Survey 2010/11, the average size of the agriculture land area is mere 0.7 ha, which is less by 0.4 ha then the average in 1995/96. The average number of parcels per land holding which has decreased from 3.8 in 1995/96 to 2.9 in 2010/11 indicates increment in land fragmentation, with 53% of the total farmers operating in less than 0.5 ha of land.

1.7. Only 54% of the total agriculture land in the country is irrigated, of which majority is concentrated in Terai region. So, a huge portion of farmers still rely on natural rainfall.

1.8. Agriculture Input Company Limited (AICL), the sole company authorized to procure and distribute subsidized chemical fertilizers, has not been able to meet the demand of the market. According to the Ministry of Agriculture Development (MoAD), the estimated demand of fertilizer in 2011/12 is 700,000 tons. However, the available budget for the same fiscal year is only enough to buy 150,000 tons. This has created an acute shortage of chemical fertilizers.

1.9. Only 1% of the farmers owning tractor or power tiller, only 52% of them owning basic equipment like plough or improved type of plough, and mere 7% of farmer households owning a pumping set, paints a grim picture of the agriculture mechanization in the country.

1.10. According to the World Food Program (WFP)'s report of 2007, Nepal has eight regional markets, all in Terai region, and two urban consumer markets of Pokhara and Kathmandu. Except for these major markets, the transport connectivity in the rest of the country is very limited making the transportation cost of agriculture products very high and ultimately reducing the competitiveness of these goods[5].

2. Issues and Challenges

2.1. Limitation of agriculture on subsistence level and the lack of commercialization have been the biggest hurdles in the growth of agriculture sector of Nepal for decades.

2.2. The high degree of land fragmentation and increasing number of small farms has created an unfavorable environment for the commercial production of agriculture goods and has limited the sector for subsistence purpose only.

2.3. Another major hindrance in the commercialization process of the agriculture sector is the lack of access to credit and finance to the farmers. Due to lack of risk management systems like crop and livestock insurance, the financial institutions are reluctant to invest into the sector, which is making access to credit even more distant from the farmers and agro-entrepreneurs.

2.4. The accessibility of agro inputs to the farmers is highly limited. The government subsidy on chemical fertilizers being distributed through a single institution, AICL, combined with its inability to cater to the market demand have resulted in discouragement to the private sector to enter into the fertilizer market and ultimately forced the farmers to import chemical fertilizers from the open bordered India through informal channels compromising the quality of import. This has created an adverse effect in both the production as well as the quality of agriculture land.

2.5. Due to the volatility and the low return off the agriculture sector, a huge number in the agricultural workforce is either moving towards industry and service sector or going abroad for foreign employment. The resultant of these situations is the shortage of labor force in the agriculture sector, which has been growing rapidly in the recent times.

2.6. The shortage of labor along with the persistent use of traditional farming system, low mechanization, lack of knowledge of new and

5 Food and Agricultural Markets in Nepal, February 2007, United Nations World Food Programme

advance farming techniques among farmers and limited irrigation facilities is creating a huge threat for the growth of the agriculture sector.

2.7. Lack of enough markets and its accessibility among the agro-producers coupled with the lack of proper storage facilities and cold-storages have limited the return on investment for the farmers and has also increased the percentage of wastage of the agricultural goods.

2.8. The existence of anti-competitive practices like syndicates and cartels in the transportation system has increased the cost of the agro-products for the consumer despite poor return to the agro-producers ultimately contributing to the increment in the country's inflation.

2.9. Despite the existing country-wide network of agricultural research and extension system, the lack of agricultural research and mostly the lack of effective and efficient public extension system has also acted as one of the key hurdles in the growth of the sector.

3. Recommendations

Given the existing situation and challenges in the agriculture sector, following basic policy conclusions can be derived:

- Agriculture growth is necessary to alleviate poverty in a sustainable manner,
- Agriculture growth is being hindered due to inadequate agricultural infrastructure and development resources,
- Public sector/state institution alone or in isolation is not sufficient to help agriculture growth,
- Private sector's higher involvement is a prime necessity in the growth of agriculture sector.

Considering these policy conclusions as a premise, the following recommendations are proposed:

3.1. For a long-term sustainable growth, public sector should focus on the commercialization of the agriculture sector rather than merely supporting the current subsistence level farming by enabling and encouraging private sector to remove the hurdles in the path of commercialization and ultimately industrialization of the sector.

3.2. To create the environment for commercialization of the agriculture sector, policies and regulations encouraging and simplifying the processes for the agro-entrepreneurs to lease smaller farms and employ the farmers to benefit from the economies of scale should be introduced. Tools like 'Contract Farming' should be made accessible through policies and regulations.

3.3. Policies of providing subsidies at the cost of entrepreneurship should be avoided. The subsidy on chemical fertilizers should be removed gradually such that the private sectors will be encouraged to invest in the procurement and the distribution of chemical fertilizers ultimately increasing the accessibility of farmers to agro-inputs. However, an effective and efficient quality control mechanism has to be installed in the country. Further, manufacture of organic fertilizers should be encouraged.

3.4. Risk Management Systems like Crop and Livestock Insurance systems should be introduced by the public sector and encourage the private sector should be encouraged to do so too. This would create the proper environment for the financial institutions to invest in the agriculture sector and make the access to credit easy for the farmers.

3.5. In order to avert the larger challenge of labor shortage, technological advancement and mechanization of the farming system should be highly and quickly promoted, and farmers have to be educated about it. Custom duty relaxations and tax exemptions should be introduced in the import of agricultural tools to encourage the introduction of advanced mechanization of agriculture sector.

3.6. The problem of lack of proper storage facilities and cold storages can be overcome by providing tax subsidies and cash incentives to the private sector or investing in a Public-Private-Partnership model for the construction of such facilities and storehouses in strategic market centers throughout the country.

3.7. "Mundi" system, as implemented in India, should be introduced in various parts of the country to create more organized marketplaces with easy access to the agro-producers. This system would also provide environment for the farmers to receive competitive market prices as per the demand and will also help solve the problem of lack of market information for the farmers.

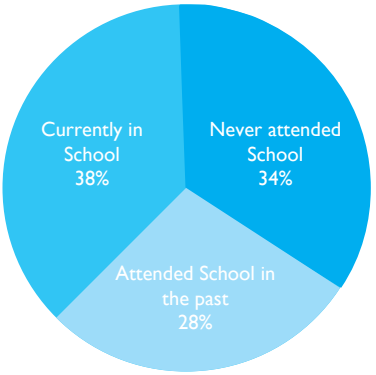
3.8. The accessibility of information and technology to the farmers of high value crops, value addition of agricultural goods, regional market demand-supply status, information and communication technology, etc. should be increased exponentially with combined effort of public sector, private sector, NGOs and INGOs.

3.9. The budget of agriculture research and extension should be increased and private sector should also be involved and encouraged in the process.

EDUCATION

In this era of global competitiveness, education provides an extra advantage to build the most important resource of all -- the human resource. With the world economy being inclined towards knowledge and skill based approach on employment, education has served as an important tool for the development of a country. In developing countries like Nepal which has one fourth of its population living in absolute poverty, education serves as a very important tool to lift people out of poverty by creating better economic opportunities. However, poverty is seen as both a cause and an effect of deprivation from quality education. Besides this, education empowers people to make better choices and participate in community and state development by becoming politically, economically and socially aware[1] .

Percentage of Population Aged 6+ in School



Source: Nepal Living Standard Survey , 2010/11 , CBS

Education has been widely dominated by the public sector in Nepal as it is generally viewed as the duty of the state to provide education to its people. In this context, the main focus of the government concerning education has always been in the formal education system. Other modes of education like informal and non-formal has been less prioritized. Despite the dominance of the public sector in education service delivery, the private sector has made significant contribution in the sector securing notable portion in pass rates and also contributing to lower the budget expenses for the government. In the context of skilled based education, the involvement of private sector is low compared to the public sector.

1. Status of Education in Nepal

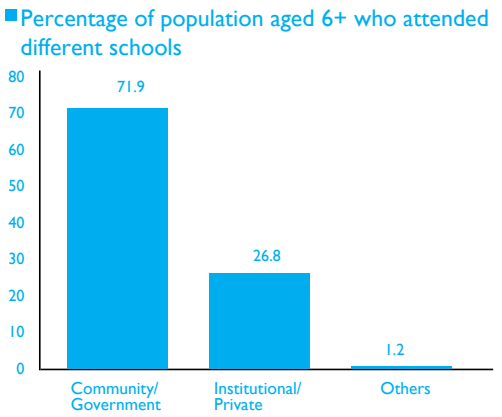
1.1. With a total population of 26.6 million[2], the Nepal Living Standards Survey 2010/11 shows that the literacy rate of the population aged 6 years and above in Nepal is 60.9 percent where considerable disparity exists in male and female literacy rates as 72 percent of the males and 51 percent of the females of the population aged 6 years and above is literate. It also shows the literacy rate of the population aged 15 and above is 55.6 percent with 70.7 percent males and 43.3 percent female literates.

1.2. The percentage of population aged 6 years and above who have never attended school is 34.4 percent , who attended school in the past is 28 percent and those who are currently in school is 37.5 percent. Data indicates that the main reasons for not attending school for this certain group were not willing to attend (30.4%) , parents did not want (14.5%) , help at home (13.5%) and other various reasons like young, expensive, far from home and disability[3].

1 Education-Our Framework Policies and Strategies, 2003 Asian Development Bank

2 National Population Census, 2011, Central Bureau of Statistics, Nepal http://census.gov.np/

3 Nepal Living Standards Survey, 2010/11, Central Bureau of Statistics, Nepal



Source: Nepal Living Standard Survey, 2010/11, CBS

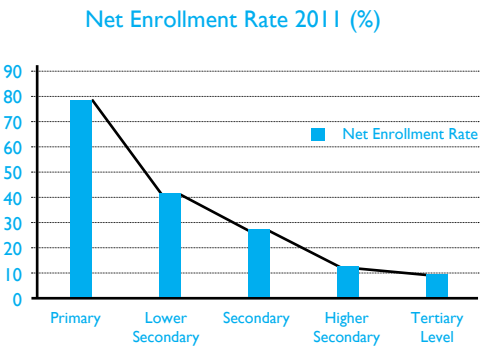
1.3. Out of the total population enrolled in school/ college currently, 71.9 percent attend community/ government school/colleges, 26.8 percent attend institutional/private school/colleges and 1.2 percent attended other school/colleges[4] .

1.4. Currently there are 33,160 primary, lower secondary and secondary schools, 3067 higher secondary school and five universities in Nepal[5] out of which the number of private school is - Primary: 4836, Lower secondary: 3078, Secondary: 2306 and Higher secondary: 685[6]. The number of students enrolled in public school in primary, lower secondary and secondary level are 5,449,736, along with 1,062,694 in community schools and 951,363 in private schools[7].

1.5. The total number of non-technical human resource[8] production in Higher Secondary level for the year 2010 was 50,093 where as technical human resource production in Higher Secondary was 18930[9]. The total number of graduates produced by the private sector in skill based training since 2008 is 17,145[10].

1.6. A cohort analysis done by World Education based upon the Nepal government's Census Report 2001 indicated that annually 650,000 children and youth (more than 85% of the school going age children) fall out of the education system without any work skills.[11]

1.7. Based on the four pillars identified by UNESCO for renewal and education reform [12], the intended outcomes of education can be categorized as (i) for preparation for higher education; (ii) for social well-being; (iii) for access, equity and inclusiveness and (iv) for creating human resource competent with market needs (economic outcome). In the context of Nepal, the country lags behind in all four outcomes as represented by the indicators in these areas.



Source: Nepal Living Standard Survey, 2010/11, CBS

1.7.1 In terms of preparing for higher education, a large number of students fall out of the education system every year. Enrollment rates of the students from primary level to tertiary level is declining as the net enrollment rate 78.4 percent in primary school, 42.0 percent in lower secondary, 28.2 percent in

4 Nepal Living Standards Survey, 2010/11, Central Bureau of Statistics, Nepal

5 Ministry of Education and Sports ,2011

6 Nepal Education in Figures ,2011 Ministry of Education

7 Nepal and the World A Statistical Profile, FNCCI

8 Technical human resource includes engineers, doctors and non-technical human resource includes lawyers

9 Nepal and the World A Statistical Profile, FNCCI

10 A Profile of National Vocational Training Providers , 2011 CTEVT

11 Technical Education and Vocational Training and Skill Development in Nepal. Skill for Employment Project. Asian Development Bank. (Sharma, 2008)

12 The Four Pillars of Education according to UNESCO , http://www.unesco.org/delors/fourpil.htm

secondary,12.9 percent in higher secondary and 10.3 percent in the tertiary level. [13]

Similarly, analysis of the SLC examination 2011 indicates 45 percent dropouts and failure [14] which is similar to the trend of the previous years.

1.7.2 In terms of social well-being, the poverty rate was at 25.2 percent [15] for the year 2011 whereas the GDP per capita stood at one of the lowest in the world. Nepal ranks 157 out of 187 countries in 2011 with relation to Human Development Index (HDI)[16]. HDI was at 0.242 [17] in the year 1980, which reached to 0.458 in the year 2011.

1.7.3 In terms of access, equity and inclusiveness, the GINI coefficient which calculates inequality among various frequency distributions like income, education, health etc. has increased from 0.34 in 1995/96 to 0.46 in 2009 [18] which indicates increasing inequality in the country.

1.7.4 In terms of creating human resource competent with market needs (economic outcome), the annual growth rate of labour force as projected by International Labour Organization (ILO) is 2.5 percent i.e. approximately 0.4 million workforce is added every year and only 6 percent of the labour force has degree level education [19] and 47 percent labour force have never attended school[20].

1.9 The recent budget of 2011/12 has allocated 3.4 percent of GDP and 17.11 percent of the total budget in education.[21] Out of the 60 percent allocated to the primary level education, 90 percent is spent on teacher and staff salaries [22].

2. Issues and Challenges

Several issues and challenges prevail in the education sector of Nepal creating hurdle for the development and improvement of education sector in the country. Some of the major issues and challenges identified in this sector are listed below.

2.1 Creating opportunity for dropouts at different education level is one of the major concerns regarding the improvement of education sector. A cohort analysis done by World Education based upon the Nepal Government's Census Report 2001 indicates that 85 percent of children of school going age fall out of education system every year. Hence, high level of dropouts have resulted into limited skilled labour force (47 percent labour force have never attended school).

Additionally, even for those who have attended school, the current formal education addresses the outcome for preparing students for another level of education more than the economic and labour market outcome with limited focus on skilled based education. Consequently, the labour forces face problems of unemployment and are often compelled to work in low paying jobs.

2.2 With the education system unable to deliver in reference to the four major intended outcomes of education of providing skilled human resource (economic outcome), social well-being, preparing students for higher education and for equity, access and inclusiveness; the relevancy and quality of education is a major issue that needs immediate attention in the context of Nepal.

2.3 A National Qualification System that could provide students with a standard qualification

13 Statistical Report vol 1 , Central Bureau of Statistics , Nepal

14 Office of Controller of Examination , 2011 Ministry of Education

15 Nepal, World Development Indicators, The World Bank (http://data.worldbank.org/indicator/SI.POV.NAHC/countries/NP?display=graph

16 United Nations Development Organization (UNDP), "20th Human Development Report"

17 HDI is a comparative measure of life expectancy, literacy, education, and standards of living of a country.

18 Labor and Social Trends in Nepal, 2010 International Labour Organization

19 Above higher secondary education

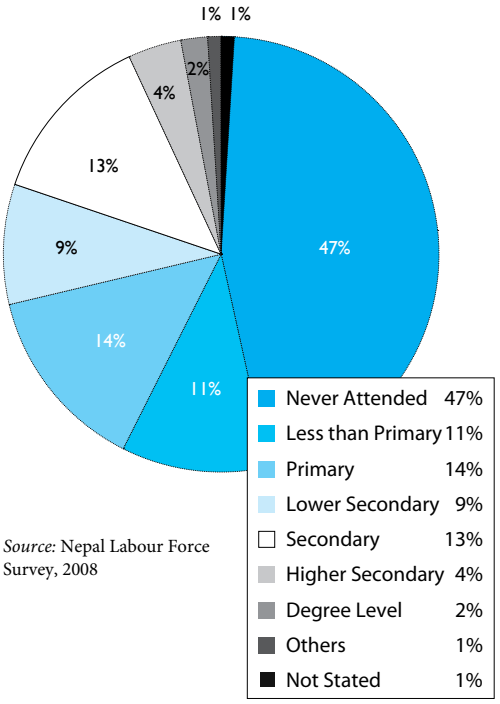
20 Nepal Labour Force Survey , 2008

21 Nepal Budget 2011/12 , Ministry of Finance

22 Foreign Aid and Education in Nepal :Some Critical Issues , Alliance for Aid Monitor Nepal

for formal, informal and non-formal modes of education has not been developed in Nepal. This National Qualification System can assist in the integration and mobility for students of different level and also help lower the corruption prevailing in the enrolment and admission of students in different educational institutions. The absence of a transparent system for assessment has provided loopholes for illegal activities in the education sector which can be minimized significantly with the introduction of the National Qualification System.

Level of Education among working age population, 2008



Source: Nepal Labour Force Survey, 2008

2.4 Another major challenge to be addressed is that of the demand and supply of human resource in the market. There has been no relevant study identifying the need and demand of the market by the government or the private sector. The identification of the demand and the need of the market could be useful for the education sector to bring about changes in the curriculum and include skill based trainings compatible to the market demand. Along with this, highly market saleable occupation (within the country and internationally) has not been identified which results in more human resources employed in lower paying jobs with higher risks.

2.5 The public spending in education and its return is yet another challenge for the government. High amount of taxpayers' money is being spent on education; foreign aid (23.84 %) and taxpayer's money (76.16%).[23] The high rate of dropouts, failure and low enrolment in higher education indicates low output compared to the spending.

Along with this, the challenge of proper budget allocation in different level of education is a notable hindrance for the development of education sector in the country. With 80 percent of the budget being spent in administrative expenses like salaries and operations, the effective use of the budget to deliver necessary returns is a major concern. Similarly the Technical Education and Vocational Training receive only 1 percent of the total education budget which is not sufficient for the development of skilled human resource in the country.

2.6 Despite the dominance of the public sector in education service delivery where 71.9 percent attend community/government school/colleges, the private sector has been thriving in the sector in the recent years, especially in the urban areas. Similarly, the performance of private sector has been significant as represented by the portion of pass percentage of the students from private schools. In the School Leaving Certificate Exams (SLC) held in 2011, 85.82% of the private school students passed the exam, whereas only 46.62% of the public school students passed[24]. Hence, the contribution of private sector is quite significant in raising the overall pass percentage of the country.

23 Ministry of Education & Sports , 2011

24 Nepal Education in Figures, 2011 , Ministry of Education

3. Recommendations

3.1. Career and Technical education has to be included in the curriculum of secondary and post-secondary level which will help mitigate the issue of inadequate supply of skilled human resource in the country and also help the education system pave way for creating human resource with specific skill specialization.

Similarly, lowering entry criteria for enrollment in Technical Education and Vocational Training for dropouts will help address the problem of lack of opportunity for dropouts and lack of access of students to skill based education. Some of the courses offered like medicine, engineering require special skills in mathematics and hence entry criteria being higher is understandable, but courses on agriculture, plumbing, general construction, auto mechanics, mid-wify, welding technician ,electrical technician and many more do not necessarily need specific skills and which are rather learnt via experience. A different approach needs to be taken regarding different courses offered by CTEVT[25]. The entry criteria needs amendment and could be changed as per requirement of different courses.

3.2. Dual Model [26] in education whereby formal and informal modes of learning are given equal priority and recognition should be introduced. The private sector can be directly involved in this kind of education system because of its characteristics to produce skilled human resource that has demand in market.

3.3. Since one of the major challenges is the lack of generic and job skills in the huge workforce, the gap in the supply and demand of skilled work force can be narrowed with active involvement of the private sector in providing Technical Education and Vocational Training (TEVT). Since the demand of the skilled human resource comes from the private sector, the private sector can be a better option in providing demand based relevant skill trainings. The government along with the active involvement of CTEVT and the private sector should focus on introducing an effective policy to provide TEVT according to the market demand.

3.4 Since a large portion of the available labour force lacks necessary level education [27], technical education and vocational training should be provided for the working population along with unemployed youth through non formal means. For this, non formal means of education such as on the job training should be encouraged which should be combined with the National Qualification System so that people are able to upgrade their skills and qualification while still on the job and consequently move up the income ladder. For this, trade schools that had been conducted by FNCCI can be continued by making it more effective.

3.5 Various modes of learning and pathways for promoting mobility of the workforce should be introduced. The three modes of attaining education formal, informal and non-formal should be made open and should be given equal priority and should be facilitated by the government. This would increase the choices for the people and thus students wishing to get formal education and those wishing for informal mode and non-formal mode would be able to get equal access to education. People should be allowed to change their educational stream from one to another, abiding by a certain criteria for enrollment that can be formulated by the national qualification system. A qualified student from informal mode of education should be allowed to join the formal system and vice versa.

25 Since a 5th grader has basic ability to read and write dropouts at this level can be made eligible to enroll in courses like plumber, general construction, and auto mechanics, mid-wife. Other courses like agriculture, welding technician, electric technician's entry criteria can also be reduces from SLC pass to grade 8 passed.

26 In the dual system of education, the students are presented with opportunity to either choose university education or specialization education in trade and technical schools. The students opting for a university degree follow the stream of academic schooling and on the other hand the students opting to go to the workforce directly with skills opt for trade schools.

27 The Nepal Labour Force Survey, 2008 indicates that only 6 percent of the total population of age 15 above have acquired higher secondary and degree level education and 47 percent of the age group has never attended school while the labour force participation rate is 71.5 percent in the year 2009.

3.6 The existing one percent of budget in technical education needs an increment to five percent for effective functioning of the CTEVT which can produce skilled human resource. In order to increase the budget of TEVT, the percentage of education budget in the national budget needs an increment to an international standard of 20 percent of the total budget.

The deprived and the marginalized group that do not have equitable access to education should be provided with scholarship, soft loan and stipend according to their necessity. The financing system of education should be changed from supply side to demand side. Financing the demand side means financing the students directly rather than financing the schools. The education voucher system is the perfect example of financing the demand side.

3.7 A system of financing the students rather than the schools needs to be considered to improve on the public spending on education. Education Voucher System [28] can be one of the best practices that can be introduced to improve the public spending in education.

The system of funding the schools and not the students has made the schools ineffective and incompetent which has resulted in degradation of the education standard. The students who are to be benefited from the spending in education are deprived of most of the facilities because most of the school budget goes in salaries and administrative works.

3.8 A national qualification system should be formulated to provide a standard certificate to different level and modes of education. This system can be an upgraded along with the already implemented National Skill Testing Board (NSTB). All students that have acquired education through formal and informal medium could sit for a national testing and acquire a nationally recognized qualification regardless of their previous education level. The recognition of prior learning, awarding vocational qualification and academic assessment would be the main concerns of the National Qualification System and this could mitigate the problem of effectiveness of the education system along with the quality assurance.

3.9 The Technical Education and Vocational Training Skill Development Policy 2007 (revised in 2012) needs to be effectively implemented. It was introduced by the government three years ago but has not been effectively implemented yet. This particular TEVT policy has addressed all the major issues but since there has note been an effective implementation the situation of TEVT in Nepal has not been able to give intended outcomes. The government needs to revise the policy and introduce and implement an effective TEVT policy for strengthening TEVT in Nepal. The policy makers need to embrace new modern education system that provides skills for employment and self-employment. The implementation of this policy would only be possible with clear financial policies and acts putting them into action.

High quality (world class) higher education institutions should be promoted in Nepal with the approach of making Nepal a knowledge hub. Not only inviting students from all over the world, but with thousands of Nepalese leaving for aboard education every year, the market can be captured by attracting world class institutions in Nepal[29]. The climatic condition, moderate temperature, landscape, low operational cost, low human resource cost can be instrumental in making Nepal an educational hub for Asia and the world. The government needs to create a favorable environment for investors to establish large scale schools and universities.

28 In this system the government provides a voucher to the economically weak and deserving students which can be only used to pay to the school of their choice. The education voucher system has been successful in different states of India, Bangladesh, Chile and other countries.

29 Some of the examples of FDI in education sector are Modern India School, Manipal School of Medical Science, Lincoln School, Delhi Public School, Euro Kids, Indira Gandhi National Open University (IGNOU), and the British School Kathmandu.

HYDROPOWER

Energy is a prime mover of almost all economic and technological advancement. It undoubtedly plays a crucial role in the development of a nation as the growth of all sectors largely depends largely on the availability, reliability and adequacy of energy. Energy is a major factor of production like land, labor, capital and organization, be it in agriculture, manufacturing, infrastructure, service or any other economic sector.

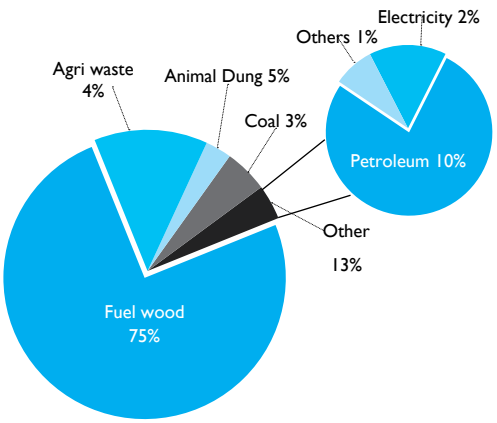
There are various sources of energy such as fuel wood, petroleum products, agricultural waste, animal dung, electricity etc. Firewood and coal mines are limited, costly and unfavorable to the environment And, no traces of fossil fuel reserve has been found in Nepal. The development of alternative energy such as solar or wind is also limited due to the high cost involved in such development. However, Nepal is endowed by a huge hydropower potentiality which remains untapped. Therefore, hydropower is one of the most accessible and highly potential sources of energy available to meet the country's energy demands.

1. Status of Hydropower in Nepal

1.1 With the onset of Pharping hydropower project with a capacity of 500 KW in 1911, a series of hydropower projects were constructed through bilateral and multilateral aids in association with private sector involvement, particularly after 1990. These projects together are currently producing electricity to the extent of 652.15 MW. Approximately, this represent only one per cent of techno-economic potential with the development efforts of over a century.

1.2 All of the hydropower projects in Nepal are of run-of-river (ROR) type except Kulekhani which generates 92 MW. Utilization these projects in full capacity is only possible in rainy season. It remains idle in the dry season due to the fluctuation of the volume of water in the river. Therefore the supply of electricity varies by seasons reeling the country into a severe load shedding during the dry season.

Consumption of Energy in Fiscal Year 2009/10



Source: Economic Survey 2010/11

1.3 The share of traditional source in total energy consumption is 84% of which firewood alone contributes 75%. The rest is from modern sources of energy of which consumption of petroleum accounts to 10%. A mere 2% of the total energy consumption is met by electricity. It shows that Nepal has not been able to realize its potential in electricity generation through Hydropower[1].

1.4 The country's total power demand has reached around 946.10 MW at the peak hour (6:30 PM) and there is deficit of 520 MW in the winter season[2].

1 Economic Survey 2010/11

2 NEA Report, 2011

1.5 Total hydro-electricity generation capacity, based on the Power Purchase Agreement (PPA) signed so far, has reached 1,186.702 MW[3]. Out of total capacity, 174 MW of electricity generating projects is already in operation. Upto 25MW projects, a flat rate PPA system is applied, according to which the power producers get Rs. 4.80 per unit in rainy season and Rs. 8.40 in dry season.

1.6. Review of Plan, Policy and Program

1.6.1 Electricity Act and Hydropower Development Policy 1992

The policy and act of 1992 is mainly formulated to attract private sector involvement and meet internal demand of electricity by constructing small hydropower plants. With an aim to increase the private sector involvement, it has given several incentives like generation license validity of 50 years, income tax holiday of 15 years, after 15 years income tax at the rate of 10 percent below prevailing corporate income tax rate, energy rate to allow 25 percent return on invested share capital, 1 percent customs duty only on imported goods for the project. However, this electricity act is unable to address issues related to large hydropower project which is constructed for export purposes.

1.6.2 Hydropower Development Policy 2001

For the purpose of attracting more private sector investment, a revision was made in 2001 to supplement hydropower development policy 1992. This has among other things featured BOOT (Build, Operate, Own and Transfer) for the first time in developing hydropower projects. This policy has emphasized on the construction of multi-purpose projects which are capable of generating electricity, providing irrigation facility, flood control and drinking water. In managing investment of domestic and foreign investors, it has given a guarantee that none of the hydropower projects, transmission as well as distribution systems constructed by private sectors will be nationalized. It has also provided exchange facilities to the foreign nationals, firm or company to repatriate their investment in foreign currency at the prevailing exchange rate. But this policy has been constrained by the lack of Act which remains pending in legislative parliament since 2008.

1.7. Investment in Hydropower

1.7.1. As of April 2012, as many as 81 different firms have taken approval to invest their capital in hydropower sector of Nepal[4]. A mere 23 hydropower projects have been constructed with an electricity generating capacity of 174.6 MW representing 27% of the current total hydro-electricity generation in the country.

1.7.2. After the restoration of democracy, average expenditure in electricity during 1990-1996 was 0.90% of the GDP. There was a marginal improvement in the pattern of this expenditure which stood at 1.3% of GDP during 1997-2005 despite the insurgency. The expenditure has not improved after comprehensive peace agreement as expenditure made is only 1.4% of GDP during the period of 2006-2010. This indicates that there is an insignificant proportion of expenditure in this sector which is not enough to produce 50 MW of electricity.

1.7.3. After 1990, the total investment in hydropower is amounted to $702 million. Out of which $402 million (57%) is contributed by the government sector and $300 million (43%) is made by the private sector[5].

2. Issues and Challenges

2.1. Political Constraints

Political and policy level stability is one of the key components in executing hydropower projects. However, no government has completed its full tenure of five years after restoration of democracy

3 www.doed.org.np

4 Department of Industries, 2012

5 Regmi, B R (2063 BS). Paribartit Sandarvama Nepalko Jala-bidyut Bikas,(Nepali),Vidyut, year 17, No. 1 P. 40.

in 1990. This has brought fluctuation in policy and priority of the government. Similarly, the re has been evident implications of a decade long conflict (1996-2006) in both the public and private sector investment. Public sector investment was diverted into defense expenditure which had jumped to NRs. 18.33 billion in 2005 from rupees 5.38 billion in 1996 - a rise of 241% by putting development expenditure in captivity. On the other hand, private sector is reluctant to invest in the economy because of the pessimism and frustration.

2.2. Pricing Issue

The price of electricity has not increased from September 17, 2001. It has been more than a decade that the price of electricity has remained constant. It does not even cover the inflation rate. If the price of electricity is determined according to free market mechanism, the financial condition of Nepal Electricity Authority (NEA) would improve , which will enable it to pay independent power producers better.

2.3. Financial (Investment) Constraints

The return from investment in hydropower starts after a long period of time as they have long gestation period. It implies that they have slow return on cash flow in the beginning. The investor starts getting return on equity after 12-15 years. The investor is averse to investment with such slow rate of return in the beginning and does not like to wait.

2.3.1. Allocating less than 2% and most of the years only around 1% of GDP in electricity is not sufficient investment because a minimum of 5% of GDP needs to be allocated to produce approximately 200 MW of electricity.

2.3.2. Financial institutions such as commercial and development banks can not invest capital in infrastructure projects because these institutions accept fixed deposits for a short period of one year or even less. So, they have difficulty in funding hydropower projects where loan is needed for 10-15 years.

2.3.3. The central bank of Nepal recently issued a circular that it will provide credit to banks and financial institutions (BFIs) at an interest rate of 6.5 percent which they will have to re-lend at not more than 10 percent. This refinancing facility is provided only for 6 months to for those hydropower plants which are upto 25 MW capacity. This is a very short period as the gestation period of such projects

Investments of Government, Private and Donor Communities

Rs. In Ten Millions

Year	GDP	Expenditure in Electricity	As % of GDP
1992/93	28644.9	222.91	0.778
1993/94	30911.5	231.22	0.748
1994/95	31840.7	176.49	0.554
1995/96	33668.1	321.02	0.953
1996/97	35358.6	444.73	1.258
1997/98	36559.2	470.47	1.287
1998/99	38234.8	481.13	1.258
1999/00	40574.6	553.79	1.365
2000/01	41342.8	681.37	1.648
2001/02	41409.2	439.53	1.061
2002/03	42969.9	388.16	0.903
2003/04	44865.4	474.62	1.058
2004/05	46316.5	721.91	1.559
2005/06	48043.5	625.64	1.302
2006/07	49365.1	545	1.104
2007/08	52226	584.76	1.120
2008/09	54196.4	607.33	1.121
2009/10	56348.8	1250.34	2.219

is relatively longer. Furthermore, this circular of central bank does not address financial challenges of those projects which are more than 25 MW.

2.3.4. The pension and insurance sector has provided funds to banks rather than directly to projects as they do not have a proper mechanism to calculate risk factors. These sectors in Nepal could provide loan to various projects such as hydropower if proper risk calculation mechanism is set up[6].

2.3.5. For constant flow of FDI in hydropower, foreign investors seek for two conditions: i) PPA in US$ or any other reliable currency, and ii) Sovereign guarantee by Nepal government. Sovereign guarantee means paying loan by Nepal government if Nepalese hydropower companies are unable to repay their loan due to disturbances through external environment and sources. Nepal needs at least NRs 400 billion to generate the amount of hydroelectricity to address present day energy crisis. It needs additional amount of investment in constructing transmission and distribution system. The donor cannot provide this sum of money and FDI is not flowing due to poor balance sheet of the NEA. So, government should provide sovereign guarantee till the loan is paid for those commercially viable projects which are going to produce 2500 MW within 5 years.

2.3.6. The World Bank does not provide loan to private sectors directly. When it provides loan to private sector through government, the interest rate increases from 4-5% to 10-11%. It does not make the project feasible.

2.4. Transmission Line Constraints

Lack of adequate transmission lines along with lack of sufficient capacity on existing and planned cross-border transmission lines is the major constraint for evacuation of power. Cross-border transmission lines are essential for commercial viability of mega hydropower projects of Nepal. In addition to this, cross-border transmission lines are very important for importing electricity from India during dry season as well. If adequate transmission lines are constructed to import 150 MW of electricity from India during winter season, current load-shedding will reduce to some extent.

2.4.1. There are 24 different projects which are facing various problems during the course of construction. Similarly, there are other six projects which are halted due to lack of transmission lines for years. Among them, the government has decided to start transmission lines for Khare Khola Hydro Electric Project (24.1 MW) and Singati Khola Hydro Electric Project (16 MW). However, the remaining four projects namely: Maya Khola H.E.P (14.9 MW), Solu H.E.P (23.5 MW), Tallo Solu H.E.P. (82 MW) and Mewa Khola H.E.P. (50 MW) could not start construction work due to problem of transmission lines since August, 2009. The government has not made any decision for solving transmission related problems to these projects even at this time of severe energy crisis[7].

2.4.2. There are various impractical environmental and forest guidelines which hinder construction of transmission lines. It is a lengthy and lethargic process to get forest clearances. There is dual provision of reforestation as plantation of 25 trees is required when 1 tree is cut down and 16 hectare of land is to be given to the forest department for clearing 1 hectare of land for the construction of transmission lines[8]. It is equally difficult to perform land acquisition at local level where the affected people demand 100% compensation with ownership of land. However, 10% compensation is ensured by the act of land[9]. In this way, purchases of land for plantation of trees are cost intensive and practically difficult.

2.4.3 Cross border transmission line is very necessary to exchange power between Nepal and

6 Government of Nepal. Scaling-up renewable energy program: Investment plan for Nepal (2011), P. 41

7 Personal Communication with Sashi Sagar Rajbhandari, Hydropower Entrepreneur on 10th June, 2012

8 Forest Act, 1992 and Regulations, 1994, Local Self-Governance Act, 2000

9 Land Acquisition Act, 1977

India. There is a complementary relationship between power demand in India and Nepal as Nepal will have surplus amount of energy during summer season if all projects which have completed PPA with the NEA are constructed in time. On the other hand, there will be surplus amount of energy in India during winter season as demand is low. There will be shortage of power in Nepal in winter season because most of the projects are R-O-R type. So, if cross-border transmission lines are constructed in time, there will be exchange of power and both of the countries will be benefitted. Realizing this fact, the construction of Muzaffarpur-Dhalkebar corridor is planned but the field level work cannot be started because financial closure of Nepalese side is not completed. If it is constructed, Indo-Nepal procurement of power will increase from existing 100 MW to 250 MW and it will be very helpful to reduce load shedding in Nepal.

2.4.4 Appropriate arrangement has not been made to introduce wheeling charge system in transmission lines. If this system is implemented, various industries such as cement, iron, steel etc. can directly buy electricity from the power producers in higher prices according to their requirements.

2.5. Absence of Storage-type Projects

The country's total power demand has reached around 946.10 MW at 6:30 PM and there is deficit of 520 MW in winter season[10]. There is great mismatch in demand and supply in winter season as run-of-the-river projects generate less amount of electricity due to less level of water flow. However, the private sector has not been able to build storage type hydropower projects due to high cost and other issues of environment and resettlement. Bankers are also not willing to invest in storage type projects which need high cost and which have a long construction and repayment period.

2.6. Issue of License

The license held by various individuals who are not actual promoters or who do not intend to promote the projects is another problem. It is found that majority of license holders have inadequate financial and technical know-how which is very essential for the construction of hydropower projects. They hold the license for not generating electricity but for selling it to potential developers to earn money. It is understood more clearly by data which is related to license. The department of electricity development has issued license of generation for 188 companies in the category of 1-25 MW. These companies have generation capacity of 1178.549 MW. Among these companies, the validity period of 165 companies is going to expire within 2011 A.D. The tenure of remaining 23 companies will last till 2013 A.D. However, the generation of electricity from these projects is negligible. Most of these licenses were issued in the year 2007-2008 A.D. without adequate study[11]. As a result, the real developers on the other hand face the problem of getting license for construction of hydropower projects. They need to buy licenses from the license holders at high cost.

2.6.1 There is the same provision of licensing for large and small projects, storage and run of the river projects, export oriented and projects made for domestic consumption. This is not a practical approach of distributing license as cost, time, investment and technology vary from project to project.

2.7. Regulatory Constraints

NEA has conflicting roles as a buyer of power and as a joint-venture partner in power generation. The first step would be the reorganizing of the NEA, creating independent organizations for handling different functions, thus making private participation possible. The NEA has got monopoly over transmission and distribution. Its generation, transmission and distribution businesses should be "internally unbundled" so that it will operate on a fully commercial basis. Furthermore, the unbundling of NEA will also facilitate private investment in hydropower industry[12].

10 NEA Annual Report, 2011

11 Retrieved from http://www.doed.gov.np/survey_license_for_generation_25-100mw.php on April 24, 2012

12 Investment Policy Review Nepal, UNCTAD, 2003, P. 51.

2.8. Institutional Constraints

The department in Ministry of Energy needs to be divided according to river basins so that it is easy to track latest development. There must be separate departments for Koshi, Karnali, Gandaki and Mahakali. In addition to this, the Nepal Electricity Authority (NEA) is neither efficient nor sufficiently creditworthy to obtain private sector financing. By fiscal year 1999, its return on investment was only 0.3 per cent. So, it is necessary to reorganize NEA by creating individual organizations for handling different functions such as generation, transmission and distribution[13]. The bureaucratic burdens like red tape, corruption and customs administration hassles such as VAT refunds, duty drawback privileges and cumbersome procedures for assessing and paying taxes that is seen in Nepalese government offices has hampered hydropower development. It is a disincentive for paying taxes and creates an opportunity for rent seeking

2.9. Policy Constraints

There is an inconsistency on the tenure of a production license. The Electricity Act, 1992 has allocated 50 years as the validity of a production license, whereas the Hydropower Policy, 2001 allocates only 35 years for the same. Hydropower has not received sufficient priority among other political agendas. As a result, the new Electricity Act remains pending in parliament for a long time. The Nepal Electricity Commission Bill is yet to be finalized by the parliament. It is hoped that many of problems in hydropower sector will be solved after the promulgation of these Act and Bill.

2.10. Power Purchasing Agreement (PPA) Issue

The PPA rate should not be absolute because there is change in demand of electricity in various time of a day. It should be flexible to address exchange rate of Nepalese currency with US$ and other international currencies.

2.11. Local Issue

There are some projects like Sipring Khola HEP, Bijayapur HEP, and Lower Indrawati which were delayed due to local problems. It has increased the overall cost of the project as well. Local level obstacles were created during maintenance and operation of Khimti and Indrawati too[14]. Local people put high demand before the hydropower developers such as construction of road, bridges, schools, hospitals and others which is not possible to meet. Hence, facilitating this is the key in the development of the hydropower.

3. Recommendation

3.1 The Electricity Act should be brought into enactment to enable the Hydropower Policy of 2001 to come into action which will address the issues related to large scale projects not being covered by the existing Electricity Act of 1992. The new act must introduce competitive bidding with zeroing system to make related business deals transparent as grievances and dissatisfaction from political to local level start with non-transparent deals.

3.2 A flagship hydropower project needs to be initiated as a National Priority Project with uninterrupted flow of work.

3.3 A mechanism needs to be developed to differentiate tariff rate and PPA rate according to demand depending on seasonal variation and different times of consumption in a day. This will help NEA from going into further loss and raising its income in order to be able to pay better prices to Independent Power Producers.

3.4 As the construction of transmission lines is one of the major hurdles in the sector, NEA should construct transmission lines in areas where it has promised and in places where Independent Power Producers (IPP) are developing hydropower projects.

3.5 Financial closure should be completed on the Muzaffarpur-Dhalkebar cross border transmission line on the Nepal side to enable exchange of power

13 Investment Policy Review, UNCTAD, 2003, P. 52

14 Personal Communication with Sashi Sagar Rajbhandari, Hydropower Entrepreneur on 10th June 10, 2012

between Nepal and India as the two countries have good prospects of trading electricity in near future.

3.6 Expenditure on hydropower development has to be increased to at least 5 percent of GDP to generate 200 MW of electricity annually. Till today, the expenditure on electricity is less than 3 percent and around 1 percent for majority of years.

3.7 The functions (generation, transmission, distribution and maintenance) of the NEA should be separated by unbundling to make it more efficient, transparent, and accountable.

3.8 A coordination mechanism has to be developed within the government line agencies such as Ministry of Forest, Ministry of Agriculture Development, Ministry of Energy, etc. to solve the disputed issues of forest clearing, compensation of land and so on.

3.9 Wheeling charge system should be introduced in transmission lines so that various industries are able to buy electricity from power producers as per their requirement in negotiated prices.

3.10 Policies should be designed to facilitate investment by allocating a certain proportion of total deposits of banks and financial institutions to invest in the development of hydropower projects as priority sector investment. Financial institutions should be mobilized to provide loans to the IPPs where the refinance facility should be extended up to 2 years (currently 6 months) for hydropower projects.

3.11 In order to balance power supply during winter season, storage type projects should be constructed with introduction of proper resettlement policies.

3.12 Public Private Partnership Models such as Build Operate Own & Transfer system should be promoted as far as possible. However, as license holding is one the challenges in the sector, licenses should be provided after sound assessment and analysis of the power producers and in instances where the producers have been only holding the license without carrying out the development work on the project, licenses should be revoked. Along with this, a mechanism should be introduced in the licensing system whereby project durations are determined on the basis of the size, type (storage and R-O-R), orientation (export and domestic consumption) and level of investment.

3.13 Arrangements should be made to increase institutional efficiency of related entities (NEA, Department of Electricity Development and Ministry of Energy) to provide timely service to the power producers.

3.14 As security is a key challenge in developing hydropower projects, provisions to ensure security of projects under domestic and foreign investments should be introduced.

3.15 Priority should be given on the construction of large hydropower project by mobilizing foreign capital.

3.16 Tax incentives should be provided for which the provision has to be clearly mentioned in the Income Tax Act as well. Excise duty/VAT should be exempted while importing plants, machinery and other materials needed in the construction of hydropower projects.

3.17 Power Development Agreement (PDA) on large projects in pipeline should be immediately carried out (e.g. Upper Karnali, Arun III, West Seti, etc.)

INFRASTRUCTURE (TRANSPORT)

Nepal has come a long way in its effort to establish adequate infrastructure to ensure growth and quality of life in the six decades long experience of planned development by duly giving priority to infrastructure. However, despite these efforts, Nepal's infrastructure remains underdeveloped in providing efficient and effective service delivery and ranks 132 out of 142 countries in the category of quality of overall infrastructures[1] .

1. Status of Transport Infrastructure in Nepal

1.1. Road transport remains the most predominant form of transport in Nepal followed by civil aviation. The road sector provides for the movement of approximately 90 percent of all passengers and freight within the country. However, air service is limited and expensive to the common people mainly contributing to passenger movements in commercial and tourist destinations.

1.2 Road Transport Sector

1.2.1. At the end of the Three Year Interim Plan TYIP (2007 – 2010)[2] , 19,968 km of all-weather roads have been constructed out of which 10,835 km of roads have been categorized as extended Strategic Road Network (SRN). Only 55 % of the SRN roads are paved with bitumen or gravel.

1.2.2. In case of Local Road network (LRN), around 40,000 km of track road has been opened at the end of TYIP, out of which around 18,000 km of road is in a vehicle drivable condition with only 8000 km being all weather road[3]. In addition, 12000 km of mule tracks and 4400 nos. of suspension bridges have been built.

Road Transport in Nepal (At the End of the Three Year Interim Plan…)			
19,968 km All Weather Road. 10,835 km Strategic Road Network (SRN) 40,000 km Local Road Network (LRN) (not all weather)			
Accessibility	Quality	Efficiency & Reliability	Safety
80% Overall accessibility for all weathers.	• Only 55% of SRN paved with bitumen or gravel. • Only 44.5% LRN all-weather & 45% in vehicle drivable condition.	Cost of exporting and importing a container much higher in Nepal among South Asian nations	Number of road fatalities increasing since 2006

1.2.3. Based on Annual Pavement Surface Condition Survey[4] carried out in late 2011, 6.7 % of highways, 15 % of feeder roads and 30 % of urban roads needs urgent repair as they fall under the category of poor roads. Aram&Pero (2012)

1 The World Economic Forum's annual publication, the Global Competitiveness Report of 2011-2012

2 Three Year Plan (2011-2013), National Planning Commission

3 Three Year Plan(2011-2013), National Planning Commission

4 Final Report Traffic, Surface Distress and Road Roughness Surveys on SRN, FY 2011, Volume II, Main Report, DoR, April 2012

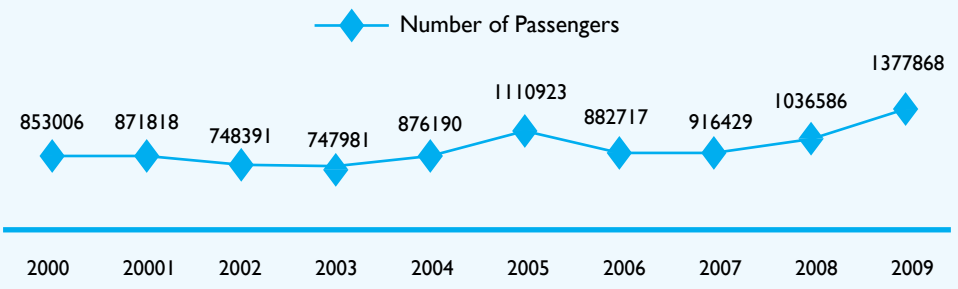
mark that the total percentage of paved road is 56 and more than one-third of the road network of Nepal is not in trafficable condition and most of the vehicles are old and obsolete. Also, at the end of the Three Year Interim Plan TYIP (2007 – 2010), only 55 % of the Strategic Road Network roads have been paved with bitumen or gravel. Out of the 19,968 km road, 6304 km is blacktopped, 4772 is gravel road and 8892 km is unpaved[5] .

1.2.4. Nepal is one of the few countries in the world with a significant proportion of its total population living in areas not served by a motorable road. A recent study[6] carried out by Department of Roads (DoR) has estimated that there has been an improvement in accessibility in Hills from 58 % in 2006 to 77.5% in 2011 and in Terai from 94 % in 2006 to 98 % in 2011 with an overall accessibility of 88 % of the population reaching motorable road within 4 hrs.in Hills and 2 hrs. in Terai during the dry period. In terms of all-weather accessibility i.e. around the year, the overall accessibility is only 80%.

1.2.5. Owing to the poor quality of the roads, the efficiency and reliability of the roads in Nepal is also very low. The cost of exporting and importing a container is much higher in Nepal than the neighboring countries in South Asia[7] . However, besides the quality of the roads, there are other factors further contributing to low reliability and efficiency of the roads such as lack of alternate routes, frequent strikes, existing transport syndicating and others.

1.2.6. Total number of road fatalities has been increasing since 2006 and has grown threatening in 2009[8]. The number of death of passengers and pedestrians per 10000 vehicles is also increasing steeply since 2006 with a total of11,747 accidents in the year 2009-10.

Tribhuvan International Airport, Ten years passenger movement



Source: Civil Aviation Authority of Nepal, 2010,Report

1.3. Civil Aviation

1.3.1. In the civil aviation sector,there are 55 complete domestic airports and an extra 5 domestic airports under construction[9] . 34 out of the 55 domestic airports are in operation out of which 5 are designated as regional hub[10] . Fourteen domestic airports in the remote areas are practically closed because of the lack of service since the private airlines do not want to operate in the airports where tourist traffic is not sufficient and local people cannot afford increasing air fare.

5 Three Year Plan(2011-2013), National Planning Commission

6 DoR Study on accessibility, April 2012

7 Doing Business Report, 2012, The World Bank and International Finance Corporation

8 Kehsab K. Sharma (2011). Status Paper on Road Safety in Nepal. Presented on the Fourth meeting of the Working Group on the Asian Highway and Export Group Meeting on Progress on Road Safety Improvement in Asia and the Pacific Bangkok, Thailand, 27 to 29 September 2011

9 Annual Report, Civil Aviation Authority of Nepal, 2010

10 Biratnagar, Simra, Bhairahawa, Nepalgunj and Dhangadi

1.3.2. The overall growth in the domestic air passenger movement is impressive if we compare the domestic air passenger movement of 853,006 in 2000 with 1,377,868 in 2009 giving an average of 6.8 % growth over the period of last 9 years. The average growth of last three year (2007 – 2009) is 16.6 %. There has been a rise in the passenger traffic trend whereas air cargo traffic has been observed to be fluctuating.

1.3.3. For international air traffic the annual traffic growth for the period (2000 – 2009) has been 7.98 % with the last three years average (2007 – 2009) coming to 13.6 %.

1.4. Nepal's network consists of two railways; one connects Nepal's inland container depot with India and the other is a 51-km spur of the line connecting Janakpur with Jayanagar in Bihar (which is a narrow gage train line of which only 35 km are in operation. Other mediums such as ropeways, waterways etc. are almost negligible.

1.5. Government Policies and Plans

1.5.1 A Three Year Plan (TYP) (2010/11- 2012/2013) was approved by the Government in 2011.The TYP aims to connect all the remaining four district headquarters (Humla, Dolpa, Mugu and Manang) by road. Besides construction of additional Strategic Road Network and bridges and periodic maintenance, the major focus of TYP is targeted to a) upgrading of 25 feeder roads to District Head Quarters to bituminous standards b) track opening of 8 North South Trade Route between India and China c) track opening of remaining part of Mid Hill Highway and improvement d) upgrading of the existing SRN to subsequent gravel or bituminous standards e) improvement & upgrading of 640 km of Postal Highway f) construction of additional 200 bridges.

In the Civil Aviation Sub sector, the Aviation Policy 2006 continues to guide the liberal and open sky policy. The Three Year Plan aims at a) increasing current level of one way international seat of 2.14 million per year to 4 million, b) increasing tourist arrival to 2 million per year at the end of the planned period, c) reviewing and revising the existing Civil Aviation Policy, d) continuing to improve the domestic airports to all season standards, e) commencing construction of Second International Airport at Neejgrah and f) continuing the improvement of Kathmandu International Airport for the extension of services.

1.5.2 Transport sector continues to be guided by National Transport Policy 2001 and Local Infrastructure Development Policy 2004. It lays emphasis on connecting all the districts andincreasing accessibility bringing people to the reach of motorable all season road within 4 hrs.and2 hrs. walk in Hills/Mountains and Terai respectively.

Resource Gap in Road Sector

Sector	Available Budget		Budget required as per the Three Year Interim Plan (Million NRs.)	Resource gap (Million Nrs.)
	FY	Million in Rs.		
Road	2007/8	4438	8836	4398
	2008/9	4882	12123	7241
	2009/10	5370	12123	6753
	Total	**14690**	**33084**	**18393**

Source : Kadariya (n.d.)

1.5.3 The development and extension of Strategic Road Network is based on Strategic Road Master Plan, 2004 and Priority Investment Plan, PIP (2007).

1.5.4 In order to ensure adequate and sustainable funding for road maintenance, Roads Board Nepal was established in 2002. With a review of the current institutional arrangement, a revision to the Act has been proposed and it is under consideration of the Parliament.

1.5.5 The Ministry of Physical Planning and Works had published a Vision Paper in 2007 with Short Term Programmes for a year long duration, Mid-Term Programmes for Three Year Long duration and twenty year period as Long Term Programmes. Out of the short and mid-term programmes, many targets have been achieved.

2. Issues and Challenges

2.1 A 2005 World Bank report estimated that Nepal needs to invest at least 2.5% of its GDP in expanding and maintaining its road assets in order to achieve and sustain a GDP growth rate of 6% (The World Bank, 2012). However, **despite demonstrated needs in investing in infrastructure, the expenditures have been low**. According to Pande (n.d.), the total transport sector expenditure, amounts around 1 % of the GDPin Nepal.

2.2 Transport sector expenditures[11] have increased fourfold over the last five years. However, **serious questions are being raised on the capacity of road agencies in efficientand effectivespending and managing of the allocated resources.** Trends show that resources allocated at the beginning of the fiscal year to the specific targeted programs have been diverted to the non-planned programs at the end of the fiscal year largely due to under spending. In many cases, non-engineered roads have been constructed creating other consequences such as low quality, accident prone roads causing maintenance burden and environmental degradation.

2.3 Infrastructure development projects in Nepal are known for its notoriously sluggish implementation period with the public sector at an underperforming stage marred by bureaucracy, politics and corruption. In this context, the private sector can be a better executer of projects where it has incentives to improve efficiency and performance, swift institutional mechanisms that enables decision making in a short time and better overall management.

2.4 According to Shrestha (2006), a study has revealed that road asset loss in Nepal is 1000 to 2000 million rupees annually. Due to inadequacies in maintenance, already built infrastructure has been less efficient and reliable and in many cases has resulted in injuries and death during accidents. **There is a need of allocating maintenance resources according to the network usage.** Asset Management is yet to be applied in SRN[12] .

2.5 With sole focus on connectivity, absence of master plan or practical vision for integrating infrastructure development with tourism, industry, hydropower, etc., has resulted in **low Utilization rates of constructed transport infrastructure and limited economic returns on a large investment.**

2.6 There has been a steady increase in vehicle population[13] at an average annual rate of 17 % over the last five years. During the same period, the growth for truck fleet is an average of 8.5 % per annum while the growth for the motorcycle is 12 %. The total vehicle population in the country now stands at 1.17 million which is a two fold increase over the period of last 5 years. Motorcycles are the

11 Economic Survey, Ministry of Finance, GoN.In 2005/06, it was 4,178 million (NRs.) and has reached 1, 7000 million (NRs.) in 2009/10. Over the last five years resources allocation to Roads Board for road maintenance have increased from NRs. 330 million (2005/06) to NRs. 2,518 million (2010/1011).

12 Roads Board is responsible for funding the road maintenance. Currently, it is funding the routine/recurrent maintenance of around 5,900 km of SRN, 500 km of urban roads and around 1300 km of district roads. In addition to the routine/recurrent it is also funding 700 km of periodic maintenance of SRN for the last two years. The resources are spread over to the entire SRN.

13 Vehicle Registration Data: Department of Transport Management, GoN.

major constituents of vehicle population and stand at over 76 % of total registered vehicles in Nepal.

Noticeable growth of traffic at the highway location adjacent to the urban centers has been recorded[14] with significant presence of motorcycles. East West Highway and some North South Highway have recorded some growth but it is not consistent. There have not been any noticeable changes in traffic growth in feeder roads. **41 % of SRN still has traffic level below 100 VPD (excluding motorcycles)**[15] **and 33 % of SRN has traffic level below 50 VPD (excluding motorcycles) .** Significant percentage of trucks carrying goods still returns empty. This has contributed in keeping the transport cost high.

2.7 Syndicate and Cartels on all major highways constraining mobility in specific routes have been one of the major hurdles in the road transport sector. Over the recent years, this has contributed to the rising prices of commodities that are transported across the country. The Competition Promotion & Market Protection Act 2006 does not allow syndicates, route monopoly and anti-competitive practices of all forms. Additionally, even a constitutional body like the Supreme Court had shown concern over the practice of syndicates in the sector in 2011. However, the government has failed to implement the directives completely. Hence, the practice has resulted in high price, low quality transport service where overcrowding in the vehicles have also led to major accidents.

2.8. Public Private Partnership (PPP)[16] **in Transport Infrastructure Development of Nepal and its Challenges**

2.8.1 Overall, PPP offers efficiency in terms of cost effectiveness, better management with swift problem solving approaches, innovation, less political interference, value for money, more Accountability, Technology, Innovation and Know-How,Focus on outcome and returns and Risk Transfer.

2.8.2 **Investment under Public Private Partnership (PPP) in transport sector is lagging**[17] .

2.8.3 Of the key legal framework enabling PPP, the act titled "Private Financing in Build and Operations of Infrastructures, 2063 (2006)" is a major one. This was followed by The Regulations On Private Financing in Build and Operation of Infrastructures, 2064 (2007). **Despite the existence of the legal framework and commitments from the government at various instances, there have so far not been specific cases of PPP projects under the act.**There shows the lack of political will in implementing PPP on a larger level.

2.8.4 Private Financing in Build and Operate in Infrastructure Act, 2063 and Regulation, 2064 provides legal instruments for attracting private sector investments in the transport sector. The government has listed several infrastructure projects, including Kathmandu Terai Fast Track, to be executed under this Act but desired progress is yet to be achieved. A recently published **White Paper on Public Private Partnership**[18] **(PPP) has listed several constraints in ensuring the private sector investment in the infrastructures in Nepal.**

2.8.5 Land Acquisition is one of the most time consuming parts of the infrastructure development

14 Final Report Traffic, Surface Distress and Road Roughness Surveys on SRN, FY 2011, Volume I Traffic Volume and Vehicle Count, Main Report, DoR, April 2012

15 Final Report Traffic, Surface Distress and Road Roughness Surveys on SRN, FY 2011, Volume I Traffic Volume and Vehicle Count, Main Report, DoR, April 2012

16 Public Private Partnership (PPP) refers to the blending of resources and assets from both public and private sectors with an objective of providing a more efficient and cost effective means of infrastructure and service delivery representing better value to people than traditional direct public delivery. Such partnerships potentially include the design, construction, financing, operation, and maintenance of public infrastructure and facilities or the operation of services to meet public needs. (National Planning Commission, 2011).

17 Although, Kathmandu – Terai Fast Track Project has been identified to be implemented under PPP, the procurement process is taking longer than envisaged due to inadequate preparatory works. In civil aviation, the first PPP project on "establishing operational hanger facilities at TIA" has been successfully launched. The detailed project report for second international airport at Neejgrah, 76 km away from Kathmandu is now complete under PPP arrangement with Korean Investor. Further award of contract for implementation is now underway.

18 White Paper on PPP, National Planning Commission, 2011

process. While the government has the absolute comparative advantage to do this, the private sector cannot get involved unless the land has been properly acquired and set for work. But in many cases in the Nepalese example, **even after the PPP contracts have been granted, land acquisition issues remain, causing delay of projects and hence cost overrun.**

2.8.6 While PPP helps fulfill the gap in investments and enable timely delivery of quality infrastructure, feasibility of PPP project remains a major challenge. Feasibility of Kathmandu – Terai Fast Track and East West Railway has demonstrated of low economic return and lower financial return where in case of East west Railway, Financial Internal Rate of Return is negative. This limits the possibility of private investment as to attract the private sector, minimum 10,000 vehicles per day (Ian Heggie, World Bank) is required.

2.8.7 In the context of Nepal, **the financial provisions for investors are insufficient for long term investments that are required in PPP for infrastructure development.**

2.8.8 As network utilization is one of the key challenges with 41 % of SRN still having traffic level below 100 VPD (excluding motorcycles)[19] and 33 % of SRN having traffic level below 50 VPD (excluding motorcycles) and significant percentage of trucks carrying goods still returning empty, **viability is a key hurdle for the private sector in investing in infrastructure**[20] .

2.8.9 The implementation of PPP requires a certain level of understanding with the Ministry of Finance. The shortfall in the required and actual investment in the development and maintenance of transport infrastructure can be solicited through PPP and a certain target has to be set in active coordination with the Ministry of Finance. However, **the Ministry has no key involvement in the process which has kept PPP from materializing in a successful manner in the context of Nepal.**

2.8.10 Due to **lack of a project bank** which looks after the feasibility, structure and other aspects of every details of the process, PPP has not flourished in Nepal. While few ministries have a PPP cell, they are not functional and many remain without active staff.

2.8.11 **Lack of capacity to plan, design, and implement PPP projects** given the lack of skilled human resource in the area. While countries like Malaysia and India gradually moved from implementing unsolicited PPP projects to creating a solid regulatory, legal and institutional framework, it is important to note that, these countries had better governance and implementation capacities.

2.8.12 The Private Financing in Build and Operation of Infrastructures Act, 2006 provides for a Project Coordination Committee to make coordination in respect of the implementation of the projects and give suggestions to Government of Nepal to identify projects and set priority. However, this Committee is a huge bureaucratic conglomerate which fails to take timely decisions owing to several reasons. The committee is important on an advisory or supervisory role but **for the smooth flow of day to day operation, the committee is not the adequate machinery.**

2.8.13 With the establishment of the Nepal Investment Board in 2011 enabled by the Investment Board Act, 2068 (2010), specific big projects in different sectors and projects having fixed capital more than 10 billion rupees are supposed to go through the Investment Board.

19 Final Report Traffic, Surface Distress and Road Roughness Surveys on SRN, FY 2011, Volume I Traffic Volume and Vehicle Count, Main Report, DoR, April 2012

20 In the context of adequate traffic for sustainability of road infrastructure in PPP, for roads to be completely viable on its own, it needs a minimum of 10,000 vehicle per day plying on the road (Ian Heggie, World Bank). However, in instances such as findings of Kathmandu – Terai Fast Track and East West Railway Projects reveal that the Economic Internal Rate of Return (EIRR) i.e. the project's rate of return after taking into account economic costs and benefits is very low and the Financial Internal Rate of Return (FIRR) is even negative. Hence, in the Nepalese context, fulfilling this requirement is a bigger challenge for PPP.

Hence, in this context, Public-Private-Partnership aspect needs to be addressed by the establishment.

3. Recommendations

3.1 In the context of Nepal where a large portion of the road network remains underutilized, measures should be taken to increase viability which depends on how much extra traffic can be generated or diverted to enhance the transport sector project. This should be considered while infrastructure planning is being done. **Focus and priority should be laid on building and implementing viable infrastructure network.**

3.2 While the larger focus in on new construction, the utilization is low resulting into lack of sustainability and being a maintenance burden. Hence, **government's priority should be asset management with proper maintenance** which requires adequate funding, effective monitoring and providing guaranteed level of service to the road users. Hence, asset management needs to be applied in Strategic Road Network. **There is a need of allocating maintenance resources according to the network usage.**

3.3 Despite being declared illegal by the Supreme Court and the Competition Promotion and Market Protection Act, 2006, the widespread practice of Syndicates and Cartel in the road transport sector has been a major bottleneck. Enforcing the Act and the decision of the Supreme Court has to be immediately undertaken by the concerned implementing agencies to stop the illegal activities such as rent charging by the syndicates on specific routes in the name of registration and operating charges, preventing vehicles from outside the syndicate to ply in the route and other constraint creating activities.

3.4 Besides road transport infrastructure, **development of other transport modes** should be initiated where focus should be laid on making sure the modes are not competing with each other but are based on being complimentary and supplementary.

3.5 **More spending needs be made in infrastructure development.** In order to ensure economic growth, the general practice is that the investments are around 5%-7% of GDP. While Bhutan spends 2.5 % of GDP on transport infrastructure, in case of Nepal, expenditures is around 1 % of GDP. Hence, in order to fulfill the gap between available and required funding, focus on working in Public-Private-Partnerships needs to be drawn.

3.6 Nepal's **readiness for PPP has to be duly assessed** with reference to the Macroeconomic Environment, Business Climate, Financial Environment, Legal Environment, PPP Policy Framework, PPP Capacity and other important criteria. Based on the assessment, **the investment climate related to infrastructure services** should be improved which includes legal reforms, innovative approaches to risk mitigation, mobilizing private investment, etc.

3.7 Guarantees should be introduced to address the issues such as policy stability, guarantee against arbitrary action of the government or change in decision, security of project company assets and others.

3.8 On one hand while economic and financial viability and sustainability remain major concerns in private sector investment, under the PPP arrangements in many cases, the direct users may also not be able to pay tolls or service charges too. In these situations, the Government should consider Viability Gap Funding (VGF) to the transport projects where examples can be drawn from cases of India where limitation can be set of VGF (India generally applies 40 %). **The Government should come up with a clear strategy on investing or mobilizing resources for the creation of Viability Gap Funding.**

3.9 **The capacity of the financial sector also has to be built to evaluate project viability of PPP projects**

and provide long long-term and non-resource financing. A mechanism for access for funding and long term financing has to be developed that meets the need of PPP projects with less government control.

3.10 **Institutional hub and project bank for PPP has to be created** as establishing project bank helps in developing projects and subsequently marketing. However, in the Nepalese context, even for project banks created at the government institutions, the capacity constraints at the government level may restrict the possibility of bringing out project to the nature of private attractions. Therefore, establishing some advisory services (government with private sector) – like in India – could accelerate the process. Hence, **the Government should try to encourage private sector to come up with advisory services to support PPP.**

3.11 The government needs to do **adequate marketing of PPP.**

3.12 Existing "Private Financing in Build and Operate of Infrastructure Act, 2063 (2006) " has not served its purpose. Even after its enactment, private investment in infrastructure has not grown as expected. This makes a strong case of looking at alternative. Hence, **changes in the Act have to be made or there is a need to steer the PPP project under relevant contract law (e.g. Model Concession Agreement).**

3.13 As transport sector needs other sectorial benefits to justify the financial return – **developing liberal attitude towards accepting unsolicited proposals for preparing Detailed Project Report is necessary.**

3.14 Since the environment for smooth and uninterrupted development of work is one of the main concerns of the investors/ builders, minimizing bureaucratic hassles in obtaining and implementing PPPs is of key priority. **A dedicated committee to look after day to day functioning of PPP activities which is free of bureaucratic hassles and constraints is required.**

3.15 The case of implementation of PPP at local levels by the local bodies and large scale projects need to be addressed specifically in coherence to the acts, regulations and laws such as the Local Self Governance Acts so that conflicting provisions do not exist .

TOURISM

Since, Nepal opened itself up to the international visitors, Nepal's tourism sector has been growing, albeit slowly. Nepal holds an attractive image of an exotic and adventurous destination for tourists around the world. Tourism is widely recognized as one of the sectors with high growth potential with comparative advantage for Nepal and remains one of the highest contributors of foreign currency reserve of Nepal. Despite this, Nepal's tourism sector is far from reaching its ultimate potential. The highest number of tourist arrivals to Nepal was around 730 thousand during 2011 when Nepal celebrated Nepal Tourism Year but the numbers are a disappointment compared to tourist arrivals in countries similar to Nepal and the initial target of the celebration which was 1 million tourists.

1. Status of Tourism in Nepal

1.1. The tourism industry contributes about 3.2 percent of the Gross Domestic Product (GDP) of Nepal. Nepal's tourism industry earned US$ 330 million in 2010[1] and was one of the highest contributors after the remittance income of foreign exchange reserves helping Nepal to retain a positive balance of payment despite the huge trade deficit.

1.2 With an average spending per visitor per day of US$ 65.3[2], tourism plays a vital role in sustenance and advancement of Nepalese economy whose per capita income is estimated to be about US$ 712[3] . According to the Three Year Plan (2011-2013), it provides direct employment to 90 thousand people.

1.3 The number of tourist arrivals in Nepal in 2011 was about 730,000 which was just 1.05 percent of the 70 million outbound Chinese tourists[4] and 6.05 percent of the 12 million[5] outbound Indian tourists in the same year.

2. Issues and Challenges

2.1. Tourism activities in Nepal are unevenly spread with concentration bias without any backup of potential study in favor of the central (70%), eastern (28%), and western (2%) regions. Tourism is highly concentrated on (i) Pokhara (52%), (ii) Annapurna (26%), (iii) Lumbini (6%), (iv) Chitwan (21%), (v) Lamtang (4%),(vi) Nagarkot (31%), (vii) Everest (15%), (viii) Dhulikhel (7%), (ix) Bhaktapur (54%), and (x) Lalitpur 48%)[6].

2.2. The ever degrading performance of the NAC, which is still a legacy in carrying the national flag to international sky, has remained as a major bottleneck in the tourism development in Nepal. The Tourism Policy-2009 has well recognized this issue and appealed for restructuring and reforming the Corporation within the framework of a public-private partnership, which no doubt would be a major landmark for tourism sector of Nepal. However, it has yet to be implemented.

2.3. There are currently 27 international airlines operating in Nepal[7] ; and Nepal has already had bilateral air service agreements with 35 Countries[8]. But renowned airlines such as Luftahansa, Singapore Airlines and Aeroflot which had been operating in Nepal in the past pulled out just because of high operational costs in TIA citing expensive landing, parking and ground handling fees, among others. The expensive ground handling charges resulting from Nepal Airlines Corporation's monopoly on ground handling has increased the cost for international airlines operating Nepal substantially.

1 Travel and Tourism Competitiveness Report 2011

2 Three Year Plan(2011-2013), National Planning Commission

3 http://www.myrepublica.com/portal/index.php?action=news_details&news_id=34037

4 http://news.travel168.net/focus_on/20120214/28647.html

5 http://www.jagranjosh.com/articles/Travelling-Beyond-the-Oceans-Outbound-Tourism-in-India-1298020991-1

6 Nepal Tourism Board (2008), Nepal Departing Visitor Survey, NTB

7 Civil Aviation Report 2010

8 Three Year Plan(2011-2013), National Planning Commission

Tourist Arrivals by Major Regions and Countries (%)

Major Region	1992-97	1998-03	2004-09
Western Europe	37.47	32.83	27.27
Asia Others	17.49	27.02	36.61
India	31.12	24.63	21.39
North America	8.22	9.13	6.934
Australia & Pacific	3.17	3.19	2.85
Eastern Europe	1.12	1.64	2.53
C & S America	0.49	1.13	1.23
Africa	0.35	0.43	0.28
Others	0.11	0.00	0.88

Source: Economic Survey, 2010/11, MOF

2.4. Out of more than 1300 identified peaks only 326 peaks have been opened so far for climbing which is just about 25.0 percent of total peaks in Nepal[9]. Further identification of the new potential peaks and liberal policy attitude for opening up more mountains with necessary caution would certainly help to generate not only more revenues but also to diversify and expand the tourism sector.

2.5. Nepal has only one international airport till date. It has been a decade since the local people in Pokhara allocated land for international airport but the government has neither initiated effective program for the implementation nor holding any discussion and dialogue with the local people for the cause of delaying dilemma. Similarly, the proposed second international airport at Neejgadh is yet to see any significant progress.

2.6. The unfavorable travel advisories issued by the Governments of origin countries of high value tourists to Nepal poses a negative threat to increase in tourist arrivals from these countries.

2.7. Frequent strikes and agitations by labor unions have adversely affected the smooth functioning of tourist related ventures, especially the hotels. In the past few years, major hotels like Hotel Vaishali, Hotel Bluebird have been closed down, frequent labor agitations being one of the major reasons. This has created a negative image regarding the business environment in Nepal and is a major hurdle for attracting investment in the tourism sector.

2.8. The tenth plan had highlighted the issues as problems in the tourism sector due mainly to lack of (i) development of new tourist spots and rural orientation; (ii) coordination between public and private sector despite the establishment of Tourism Board; (iii) analysis and estimation on the issues like revenue generation, cost-based quality tourism, employment opportunities, infrastructure and investment; (iv) air seats due to termination of flights by NAC and reduction of flights by international airlines; (v) rescuing services and fire controls followed by a lower speed and lesser load of the big aircrafts due to structural problem of the TIA; (vi) financial resources to upgrade the level of conservation, preservation, and campaigning with regard to cultural, historical, memorial, heritage sites etc.

9 Grandon, R. (2007), Nepalese Tourism – The Challenges, NATTA.

2.9. The TYIP / TYP has also repeatedly reviewed the problems and challenges of the tourism sector focusing on (i) lack of - data base on cultural, historical and memorial heritages and implementation of Pashupati and Lumbini development Master Plan; (ii) lack of improvement in the NAC; (iii) lack of encouragement to more potential innovative adventure and eco-type tourism; (iv) weak publicity and promotional activities and infrastructural development; (iv) no priority for commercial feasibility of the airports and as a result only 10 out of 55 airports have been running with profits etc.

3. Recommendations

3.1. Since poor performance of Nepal Airlines Corporation has been the major bottleneck for increasing tourist inflow to Nepal, the organizational restructuring of the NAC should be immediately initiated. NAC could be restructured into a public-private partnership organization as has been envisaged by the Tourism Policy of 2009. However, there is a need to assess and evaluate other alternatives such as privatization since the PPP model has not been well functional in Nepal yet.

3.2. To attract more tourist the concerned authority should have to give immediate attention on (i) opening more peaks from the identified list, (ii) infrastructural facility in terms of accessibility by land / air route to potential areas, (iii) rationalizing the landing, parking and ground-handling fees by opening up ground handling for other private operators as well, (iv) attracting more airlines to fly to Nepal through more liberal Air Service Agreements, (v)implementation of Pashupati and Lumbini development Master Plan, and (vi) improvement of the communication and navigational aids equipment in the airports to ensure safety and quality, etc.

3.3. The TIA should be used for 24 hours as a basic concept of international airports to facilitate the flights whereas the basic essential facilities should immediately improve and upgraded such as new and clean rest room facilities at least in the international airport, efficient baggage collection process, hospitality of the first meeting point, internet and fixed price and reliable transport facility, etc.

3.4. Frequent Bandhs and strikes have eroded the image of Nepal in the international tourism market. Thus, all the responsible stakeholders must create environment to avoid such activities at least in tourism related industries. Supply of essential goods and services together with the safety and security of the tourists must be insured to avoid major tourists incoming countries listing Nepal as a dangerous zone to travel. It is also necessary to manage the escalating labor-management tensions in tourism ventures, especially in the hotels.

3.5. To attract more tourists and for extending their stay, the common features in the tourism industry as elsewhere the nightlife should be permitted in the popular areas of tourism destination. The early forced closure of market areas and shops, restaurants catering to the demands of tourists and the extra security hassles during night time should be stopped in the popular tourism areas such as Thamel, Pokhara etc.

3.6. The major issues like rampant load shedding, ever increasing pollution and environmental degradation in popular tourist destination, lack of the quality of hygienic food and beverage in the hotels and restaurants, at least, in the tourist destination areas should be addressed immediately to maintain the touristic image of Nepal.

3.7. To increase the tourism activities and facilities in newer as well as rural areas, the government should encourage more private sector investment and make provisions for leasing government owned lands to private sector for operating activities that require huge amount of land.

3.8. The tourism markets can be addressed both in the volume and value approach, among others.

For this, Nepal can design the approach with due attention to the emerging characters of tour and travel from the Asian countries and regions. Because of the religious and cultural proximity and short travel distant, the neighboring countries together with the regional alliance groups can be attracted with the character of volume tourists whereas the conventional markets remain the source for value tourists.

3.9. Tourism products should be reviewed and restructured based upon the markets sentiments on a periodic basis and the changes in the products should be sufficiently circulated in the markets through international media like papers/journals, TVs, Radios, and e-media and moreover through Nepalese embassies and missions together with the updates of measuring the level of satisfaction of the tourists from different corners in view of designing new tourism products more effectively.

3.10. Since the peace process is on a progressive mode to be settled down, the message can be spread that long lasting conflict situation in Nepal of the past is over. More importantly, government should immediately initiate the establishment of a- Tourism Desk- for at least in the Nepalese embassies and other missions of those countries who have a higher contribution in tourists' inflow to Nepal with the responsibility of promotion and marketing of tourism. There is no any built-in mechanism of marketing for tourism; Nepal should learn the lessons in designing effective marketing strategies from the more successful countries who have already gained the status of specialization in tourism. Looking at the size and different types of natural beauty, Nepal should explore and share the experiences in hospitality, tourism products, marketing strategy, among others, from the very small countries like Aruba, Bahamas, Vanuatu, Fiji, Samoa, Cyprus, Jamaica, Mauritius, Malta, etc., who have gained higher degree of specialization in tourism, and thereby, higher economic contribution, among others.

3.11. Nepal needs to develop data base on major items like tourism receipts, stay, consumption patterns including domestic and imported goods and services in view to compare the overall benefits in terms of receipts, stay, and all other characters of the tourism industry, so that any type of tourism related studies like comparative, impact analysis, etc., can be conducted for different purposes on a more accurate and non-spurious basis. In the absence of the relevant data / information any type of studies cannot be conducted in view to compare with other countries and regions on tourism related issues.

3.12. Looking at the increasing domestic tourists the existing laws and regulations should be made compatible and consistent in regard to the additional characters including the definition and facilities of tourism. If domestic tourism can be developed and promoted in Nepal, it can contribute more significantly to the economy, employment, and other sectors.

3.13. Religious and cultural tourists can be attracted with a pious wish in directing the overall ethos of such tourists something new like baby birth in Buddhas' Birth Place in Lumbini with staying at least for a period of the whole cycle of a baby birth from the Buddhist origin of countries. For this, necessary infrastructures should be prioritized and developed in a culture of public - private partnership. Looking at the regional markets, Nepal can give an aggressive push to marketing strategy to China, Japan, Thailand, South Korea, Malaysia, Singapore, etc., from where tourists prefer to travel to Nepal with the twin goals of adventure and pilgrimage, among others, in view to visit and revisit Lumbini, the Birth Place of Buddha, among others. Since Nepal has already offered the 19th destination status by China, and also looking at the mushrooming growth of outbound Chinese tourists, new products and packages can be developed for the Chinese tourists not only for the mainland China but for other countries where Chinese have had a good presence. Since Chinese prefer more leisure tourism especially in the eve

of Chinese New Year (October) and the Golden Week , Nepal should target such festive seasons and design package tour programs with their likings.

3.14. **Nepal can develop hill stations tourism approach** on the regional basis to balance and diversify the tourism sector providing better facility in land route at the major entry points and cross border shuttle flights especially with India to promote neighborhood tourism, which will immensely help the north Indian tourists in particular and the overall Indian tourists in general since the economic strength of the Indian outbound tourists have ever been increasing.

3.15. The rural community development should focus on developing tourism infrastructure applicable to the local level, and also village tourism can be used as a compliment to eco-tourism with the involvement of local communities with skill training in a home stay style both for the foreign and domestic tourists.

3.16. The expansion of destination areas and activities with a linkage chain with other sectors, infrastructural development, and construction of a second international airport and regional airports at least in Pokhara and Bhairahawa targeting the popular destinations, environment protection, private sector participation, preserving and quality improvement of the destinations and tourism products and so on remained as the major challenges realized by most of the development plans in view to boost the tourism development. However, the major problems are not with the policies, programs and strategies but only the effective and result-oriented implementations of them.

3.17. The legacy of Kathmandu – Pokhara – Lumbini as a golden triangle route can be replicated in another name to Pokhara – Chitwan – Lumbini. Similarly, such triangle and rectangle route can be developed and diversified activity-wise in more potential ventures like adventure, trekking, mountaineering and so on.

3.18. The government capital expenditure should increase sufficiently to have a better impact on the real economic growth as has been reflected in the empirical analysis. However, the direct contribution of tourism receipts remained negative mainly due to the low retaining capacity of the tourism receipts by Nepal followed by a very low level of tourism specialization. For this, efforts should be made to attract more tourists and the tourists' consumption and requirements orientation should be made more attractive towards domestic products and services.

ANNEXES

Annex I: List of Members of the Advisory Board

S.N.	Name	Designation/Organization
1.	Ms. Ambika Shrestha	Tourism Entrepreneur; Chairperson, Hotel Dwarika's
2.	Dr. Bhola Nath Chalise	Economist
3.	Dr. Chiranjibi Nepal	Economist, Professor at Kathmandu University; Former Chairperson, Security Board of Nepal
4.	Dr. Jagadish Chandra Pokharel	Former Vice-Chairperson, National Planning Commission
5.	Mr. Rameshwor P. Khanal	Economic Advisor, Prime Minister of Nepal; Former Secretary of Government of Nepal
6.	Mr. Radhesh Pant	CEO, Nepal Investment Board
7.	Mr. Suraj Vaidya	President, Federation of Nepalese Chambers of Commerce and Industry (FNCCI)

Annex II: List of Sectorial Research Guides and Research Assistants

Sector.	Research Guide	Research Assistant
Agriculture	Mr. Bimal Wagle	Mr. Pradipan J. Thapa
Education	Prof. Dr. Tanka Nath Sharma	Mr. Koshish Acharya
Hydropower	Dr. Kamal R. Dhungel	Mr. Pramod Rijal
Infrastructure	Mr. Kamal R. Pande	Ms. Sarita Sapkota
Tourism	Dr. Dandapani Paudel	Mr. Surath Giri

a) Mr. Bimal Wagle

Mr. Wagle has spent most of his career working for the Government of Nepal (GoN) in various positions. He has served as Joint Secretary of Economic Analysis and Policy Affairs Division under the Ministry of Finance and Joint Secretary in the Ministry of Industry, Commerce and Supplies to name a few. Currently, he has been appointed as the Chairman of the Public Enterprises Management Board, a semi-autonomous body that will regulate and oversee the management of all state-owned enterprises of the country.

b) Prof. Dr. Tanka Nath Sharma

Dr. Sharma is the Dean of School of Education, Kathmandu University. Dr. Sharma has also served as the Director of the Technical Division of Council for Technical Education and Vocational Training, a national autonomous apex body of Technical and Vocational Education and Training. He has also worked on educational policy reform through various researches with different organizations and independently.

c) Dr. Kamal R. Dhungel

An academician by profession, Dr. Kamal Raj Dhungel is an Associate Professor at the Central Department of Economics in Tribhuvan University, Kathmandu, Nepal where he had received his Ph.D in 2008 on the topic "Trends and Patterns of Energy Consumption in Nepal". Dr. Dhungel has written more than more than a dozen academic books in economics and energy issues and has published more than five dozen

articles including journal articles. He has been involved in research activities since 1987 and has led the Research Teams at many instances.

d) Mr. Kamal R. Pande

Mr. Pande is former Joint secretary of Government of Nepal (GoN). During his tenure with GoN, he has worked for the Ministry of Physical Planning and Works. He also headed the Foreign Aid Cooperation & Quality Standards Division and was also a Member Secretary of Construction Business Development Council. After finishing his Civil Engineering from India, Mr. Pande received his Master's Degree on Transportation Engineering from Asian Institute of Technology (AIT), Bangkok.

e) Dr. Dandapani Paudel

Economist Dr. Dandapani Paudel has not only served the Government of Nepal as a specialist in Macroeconomics Management, but has also worked with international organizations such as The World Bank, Asian Development Bank and others as a Senior Macroeconomist. Having worked as the Economic Advisor/Director of the Research Department of the Nepal Rastra Bank, Dr. Paudel is currently the Professional Member of the Board of Directors of KIST Bank Ltd. He has also been a Professional Member of the Board of Directors of Rastriya Banijya Bank, Member of the Board of Directors of Nepal Stock Exchange Ltd. to name a few.

Annex III: List of Attendees in Consultation Meetings

a) Sector Identification Consultation (Individual & Group Meetings)

S.N.	Name	Designation/Organization
1.	Mr. Siddhant Raj Pandey	CEO, Ace Development Bank
2.	Dr. Dandapani Paudel	Senior Economist
3.	Mr. Ashutosh Tiwari	Board of Director, Samriddhi
4.	Ms. Barsha Shrestha	General Manager, Clean Energy Development Bank
5.	Mr. Rameshwore Khanal	Economic Advisor to the Prime Minister
6.	Mr. Prashant Aryal	Editor, "Nepal" Magazine
7.	Mr. Suraj Vaidya	President of FNCCI
8.	Dr. Bhola Nath Chalise	Senior Economist
9.	Mr. Diwas Basnet	Executive Director, Nepal Research and Development Institute (NRDI)
10.	Mr. Nabin Rawal	Lecturer, Tribhuwan University
11.	Mr. Radhesh Pant	CEO of Nepal Investment Board
12.	Dr. Tanka Nath Sharma	Dean of School of Education, Kathmandu University
13.	Mr. Kamal Raj Pande	Former Joint Secretary, Government of Nepal (GoN)
14.	Mr. Prachanda Man Shakya	Former CEO of Nepal Tourism Board
15.	Mr. Bimal Wagle	Former Secretary, GoN
16.	Mr. Surendra Mathema	Power Tech Nepal P. Ltd.
17.	Mr. Jagdish C. Pokharel	Former Vice Chairperson of National Planning Commission (NPC)

18.	Mr. Dipendra Purush Dhakal	Former Governor of Nepal Rastra Bank, central bank of Nepal
19.	Mr. Dipendra B. Kshetry	Vice Chairperson of National Planning Commission (NPC)
20.	Mr. Anil Chitrakar	Moderator
21.	Dr. Chiranjibi Nepal	Senior Economist
22.	Ms. Renu Sthapit	President, Women Entrepreneurs of Association of Nepal
23.	Dr. Hemant Dabadi	Director General, FNCCI
24.	Mr. Ratish Basnyat	Deputy Director, FNCCI
25.	Mr. Anil Shah	CEO, Mega Bank
26.	Mr. Suresh Basnyat	President – Nepal Chamber of Commerce
27.	Mr. Allen B. Tuladhar	Director, Microsoft Innovation Center Nepal
28.	Dr. Jagadish Chandra Pokharel	President, Center for Consolidation of Democracy
29.	Mr. Gyanendra Lal Pradhan	Executive Chairman, Hydro Solution
30.	Mr. Prem Khanal	Associate Editor, Republica Daily
31.	Mr. Yam Lal Bhusal	Under Secretary, National Planning Commission

b) Sectorial Consultation

i) Agriculture

S.N.	Name	Designation/Organization
1.	Dr. Chiranjibi Nepal	Research Advisor, Samriddhi, The Prosperity Foundation
2.	Kumud Dugar	K.L. Dugar Group
3.	Anup K. Shrestha	Asst. Director, FNCCI
4.	Pradip Maharjan	CEO, AEC, FNCCI
5.	Umed Pun	Technical Director, LACHS
6.	Bhola M.S. Basnet	Principal Scientist (Agronomy)
7.	Dr. Devendra Gouchan	Sr. Scientist, Agri- Economist, NARC
8.	Prakash Karki	VIPA
9.	Suresh Vaidya	VOITH

ii) Education

S.N.	Name	Designation/Organization
1.	Anup K. Shrestha	Asst. Director, FNCCI
2.	Umed Pun	Technical Director, LACHS
3.	Hom Raj Acharya	Chairman, Synasty Foundation
4.	Dr. Chiranjibi Nepal	Research Advisor, Samriddhi, The Prosperity Foundation
5.	Prof. Dr. Tanka Nath Sharma	Dean, KUSOED
6.	Mana P. Wagley	Prof., KU
7.	ShreeRam P. Lamichhane	Prof., KU

iii) Hydropower

S.N.	Name	Designation/Organization
1.	Dr. Kamal R. Dhungel	Hydropower- Research Guide
2.	Mr. Prasiddha Pokharel	MD, AEGIS
3.	Mr. Devendra Adhikari	Alternative Energy Promotion Centre
4.	Mr. Sashi Sagar RajBhandari	CEO, Upper Solu Hydro Electric
5.	Dr. Janak L. Karmacharya	Advisor, Clean Energy Development Bank
6.	Mr. Surya Pokharel	Under Secretary, Ministry of Finance
7.	Mr. N.S. Thapa	Chairman, Miteri Development Bank
8.	Mr. Bijaya Man Sherchan	Chairman, Pashupati Energy Development Bank

iv) Infrastructure

S.N.	Name	Designation/Organization
1.	Mr. Kamal R. Pande	Infrastructure Research Guide
2.	Dr. Chiranjibi Nepal	Research Advisor, Samriddhi, The Prosperity Foundation
3.	Mr. Nugal Vaidhya	Member, FCAN
4.	Mr. Jaya Ram Lamichhane	President, FCAN
5.	Mr. Kush Kumar Joshi	Imm Past President, FNCCI
6.	Mr. Reshmi Raj Pandey	Ministry of Local Development
7.	Mr. Hare Ram Shrestha	President, Society of Consulting Architectural and Engineering Firms (SCAEF)
8.	Mr. Chandra B. Shrestha	NERTD
9.	Mr. Ram Krishna Sapkota	DDG, DoLIDAR
10.	Mr. Bhupendra Bd. Basnet	DG, DoLIDAR
11.	Mr. Saroj K. Pradhan	DoR (KTM- BKT Road)
12.	Mr. Pushpa Lal Shakya	Joint Secretary, NPC
13.	Mr. BR Pande	ICAN
14.	Mr. A.D. Lama	Deputy Secretary General, FCAN
15.	Mr. Ramesh Raj Bista	Joint Secretary, MOPPW
16.	Mr. Ajay Shrestha	Investment Board
17.	Mr. Yanki Ukyab	Investment Board
18.	Mr. Madhab Raj Ghimire	Consultant, Network Regulation
19.	Mr. Nicholas Pandey	Ex. Board Member, ICAN
20.	Mr. Satish Joshi	Investment Board

v) Tourism

S.N.	Name	Designation/Organization
1.	Mr. Shyam Sundal Lal Kakshapati	Chairman, Nanglo Group

2.	Mr. Sunil Sharma	Research Manager, Nepal Tourism Board
3.	Mr. Sarad Pradhan	Media Consultant, NTB
4.	Mr. Yogendra Singh	Club Himalaya

c) Regional Consultation

i) Biratnagar

S.N.	Name	Designation/Organization
1.	Trilochan Sapkota	PCCI
2.	Amrit Gurung	Gandaki Trout Farm
3.	Lochhan Gurung	Gandaki Trout Farm
4.	Bani Bdr Basnet	Sr. Agriculture Development Officer, DADO, Kaski
5.	Tika Ram Sapkota	PTC, President
6.	Basu Tripathi	Ex. Member, NTB
7.	Rabindra Prajoo	JS, PCCI
8.	Dev Chhetri	Second Vice-President, PCCI
9.	Krishna Mohan Shrestha	President, PCCI
10.	Kamal Raj Dhungel	Economics Dept., TU
11.	Surya Bahadur K.C.	
12.	Bindu Kumar Thapa	First Vice-President, PCCI
13.	Krishna Thapa	CPNUML, Kaski
14.	Bir Bahadur Budhathoki	Central Member, PABSON
15.	Dr. Lekhnath Bhattarai	Asst. Prof. PNC
16.	Ashok Palikhe	Chairman, Kumudini H.S. School
17.	Roshan K.C.	Technical Chief, Bhagwati Hydropower (4.5 MW)
18.	Sanjib Bdr. Koirala	PCCI
19.	Chitra Nath Poudel	Farmer

ii) Chitwan

S.N.	Name	Designation/Organization
1.	Bhoj Raj Kandel	Member CCIC
2.	Shankar Sainju	President, RHAN
3.	Rajan Gautam	G.M.T., Krishi Shamaz
4.	Dipak Raj Bista	Program Officer, CCIC
5.	Dr. Khem Raj Neupane	Member, FNCCI
6.	Asha Shrestha	Admin. Officer, CCIC
7.	Dr. Til Chandra Bhattarai	President, CCI-Chitwan
8.	Kalyan Joshi	Vice-President, CCI- Chitwan
9.	Sahan Lal Pradhan	First VP, CCI-Chitwan

10.	Rishi Pd. Lamichhane	Second VP, CCI-Chitwan
11.	Nirmal Kumar Sharma	Asst. Professor, Birendra Multiple College
12.	Vijaya Subedi	Chitwan Valley Development Committee
13.	J.N. Thapaliya	Ex. Vice-Chair person, DDC
14.	Kapil Dev Subedi	Lecturer, Saptagandaki Multiple Campus
15.	Chun Narayan Shrestha	Executive Member, CCIC
16.	Purna Chandra Sapkota	
17.	Kapil Babu Khanal	Executive Member, Nepal Poultry Ent Form
18.	Ram Sharan Silwal	Executive Board Member, CCI, Chitwan
19.	Rasik Pradhan	Executive Director, CCI, Chitwan
20.	Era Shrestha	Business Development Officer, CCI, Chitwan

iii) Pokhara

S.N.	Name	Designation/Organization
1.	Surendra Golchha	Golchha Organization
2.	Rajan Shrestha	M.M.A
3.	Rawat Bdr. Thapa	Ratna Hotel
4.	Tara Chanda Khetan	Past President, Morang Vyavasayi Sangh
5.	Dr. Pramod Kumar Jha	Professor, TU
6.	Rajendra Raut	Morang Merchants Association
7.	Suman Rai	GKD
8.	Bhesh Raj Pokharel	VP, Higher Secondary Schools Association of Nepal
9.	Rabin Dahal	Morang Merchants Association
10.	Devaki Nandan Agrawal	Vice-president, MMA
11.	Suresh Bhattarai	Regional Hotel Association
12.	Bikash Parajuli	Koshi Travels
13.	Pawan Kumar Sarda	M.M.A
14.	Anil Sarda	M.M.A
15.	Madan Kumar Khanal	M.M.A, BRT
16.	Khamba Singh Basnet	Presiden, PABSON Morang
17.	Abhishek K.C.	M.M.A
18.	Rajesh Kumar Chharahang	President/N PABSON Morang

iv) Nepalgunj

S.N.	Name	Designation/Organization
1.	Satish Agrawal	First Vice-president, NGCCI
2.	Achyut Prasad Prasai	Nepali Congress
3.	Purushottam Sharma	Member, NGCCI
4.	Bishnu Prasad Bhusal	Member, NGCCI

5.	Maya Devi Gurung	Member, NGCCI
6.	Bandana Singh	Member, NGCCI
7.	Lalit Kumar Rauniyar	Member, NGCCI
8.	Rajendra Nath	Kantipur Daily
9.	Dinesh Gautam	Nagarik Daily
10.	Pradeep Kumar	Manager, K.L. Dugar Group

v) Dhangadi

S.N.	Name	Designation/Organization
1.	Bishnu Raj Burlakoti	Kishan Agrovet Centre
2.	Subash B. Shahi	Director, SPA
3.	Bhim Raj Ojha	ABU Cassettes & CD's
4.	Lab Kumar Malla	Agriculture
5.	Birendra Bom	MD, Brihaspati research
6.	Om Bista	NAST, Dhangadhi
7.	Jaya Raj Joshi	Secretery, KCCI, Dhangadhi
8.	Upendra Bista	General Secretery, KCCI, Dhangadhi
9.	Dilli Sharma	Executive Director, KCCI, Dhangadhi
10.	Khagendra P. Sharma	District Agriculture Development

d) National Consultation

S.N.	Name	Designation/Organization
1.	Udaya Bohara	FNCCI
2.	Radheshyam Malakar	FNCCI
3.	Kamal R. Dhungel	TU
4.	Prithvi R. Legal	NEAT
5.	Dr. D. B. Shakya	NEAT
6.	Dr. D. B. Dongol	Retd. Proffessor
7.	Anup K. Shrestha	FNCCI
8.	Sharad B. Karmacharya	ADB
9.	Pradeep Dangol	IPPAN (Independent Power Producer's Associan, Nepal
10.	Dr. G. R. Bhatta	
11.	Narendra Prajapati	IPPAN
12.	Saroj Dhakal	Wind Power Nepal
13.	Shikha Pokharel	Wind Power Nepal
14.	Kamal Pande	Consultant

Federation of Nepalese Chambers of Commerce & Industry (FNCCI)

The Federation of Nepalese Chambers of Commerce and Industry (FNCCI) is an umbrella organisation of the Nepalese private sector. It was established in 1965 with the aim of promoting business and industry. While protecting the rights and interests of business and industrial communities, FNCCI has been playing a key role in promoting business and industry in the country. It provides, inter alia, information, advisory, consultative, promotional and representative services to business and government and organises training / workshop / seminar on a regular basis.

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Samriddhi is an independent non-partisan, not-for-profit, research and educational public policy institute based in Kathmandu, Nepal. Established in 2007, the organization has been working on Entrepreneurship Development, Improving Business Environment, Economic Policy Reform and Promoting Discourse on Democratic Values through Research & Publication, Education & Training and Public Outreach & Advocacy.

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