## An Approach to the

# Graduation from the Least Developed Country by 2022



**Government of Nepal** 

## **National Planning Commission**

Singha Durbar Kathmandu, Nepal

March, 2014

As a signatory to the Declaration of Istanbul Program of Action (IPoA), Nepal committed to seeking graduation from an LDC category by 2022. This is reflected in the Approach Paper to the Thirteenth Plan (2013-16).

This is a draft version of an approach to the Graduation from the Least Developed country by 2022. So far, a number of stakeholder consultations have been carried out and the process is still ongoing. So, all stakeholders and individuals are highly encouraged to provide creative feedback and inputs to finalize the vision of the nation.

Feedback at: ldcfeedback@npc.gov.np

## Abbreviations/Acronyms

CBS	Central Bureau of Statistics
CSO	Civil Society Organization
EVI	Economic Vulnerability Index
GDP	Gross Domestic Product
GNI	Gross National Income
GNP	Gross National Product
GoN	Government of Nepal
HAI	Human Assets Index
ICOR	Incremental Capital Output Ratio
IDS	International Development Strategy
IPoA	Istanbul Programme of Action
LDC	Least Developed Country
MDGs	Millennium Development Goals
MoE	Ministry of Education
MoF	Ministry of Finance
MoHP	Ministry of Health and Population
NGO	Non-Government Organization
NPC	National Planning Commission
PPP	Public-private-partnership
SSRP	School Sector Reform Program
UNCDP	United Nations Committee for Development Policy
UNCT	United Nations Country Team
UNDESA	United Nations Department of Economic and Social Affairs
UNECOSOC	United Nations Economic and Social Council
UNSD	United Nations Statistics Division

#### **Major Development Indicators**

#### 1. Population Total population 2012 (million) 27.2 Population (annual average growth rate), 2001-2011 (%) 1.35 2. Poverty and inequality Human Development Index (HD) 2012 (rank/186 countries) 157 Gender Inequality Index (GII), 2012 (rank/ 148 countries) 102 Multidimensional Poverty Index (MPI), 2011 (value) 0.217 Gender Empowerment Measure (GEM) (rank/109 (value) 83 Gini coefficient of income inequality, 2000-2010 (%) 33 Gini coefficient in rural areas (2009/10) 31 Gini coefficient in urban areas (2009/10) 35 Population below the national poverty line 2002-2012 (%) 23.8 Population below int' income poverty line (ppp US\$ 1.25 days), 2006-2011(%) 25 3. National Accounts Nominal Gross Domestic Product (GDP) at Producers Price, 2012/13 (US\$ in million) 19529 Annual average growth rate of GDP at Producers Price, 2012 (%) 4.6 GDP per capita at current price, 2013 (US\$) 717 Gross National Income per capita, PPP, 2011 (US\$, rank/163) 1,260 /145 Debt services as % of GDP, 2012 2.3 Debt services as % of export of goods & services, 2012 11.1 Current account balance as % of GDP, 2012 4.9 Gross domestic saving as a % of GDP, 2012 9.3 Gross consumption as a % of GDP, 2012 90.7 Gross national saving as a % of GDP, 2012 38.4 Gross fixed capital formation as a % of GDP, 2012 21.2 Government investment in GFCF – GDP, 2012 4.0 Private investment in GFCF-GDP. 2012 172 Saving investment gap as a % of GDP, 2012 -28.5 Sectoral Contribution to GDP (%): Agriculture, 2013 34.7 Industry, 2013 15.0 Services, 2013 50.3 4. Public Finance Government revenue as a % of GDP, 2012 17.0 Tax revenue as a % of GDP, 2012 14.8 Noon-tax revenue as a % of GDP, 2012 2.2 Total Official Development Assistance (ODA) as % of GNI, 2010 1.0 Official Development Assistance (ODA) per capita, 2010/11 (in US\$) 30 Total remittances receipts, 2012 (US\$ millions) 4937 Total workers' remittances receipts as % of GDP, 2012 22.4Total public expenditures as % of GDP, 2012 23.8 Recurrent expenditure as a % of GDP, 2012 16.4 Capital expenditure as a % of GDP, 2012 3.9 Income from tourism / GDP, 2012 1.7 Expenditure in tourism, 2012 2.4

5. External Sector       4         Import GDP ratio, 2012       29         Total trade / GDP       33         Trade deficit / GDP       34         Current account balance, 2012       1.         6. Education       95         Primary School perse enrolment ratio, 2011/2012 (B:95.9, G:94.7)       95         Primary School ret enrolment ratio, 2011/2012 (B:127.5, G:132.7)       130         Secondary School gross enrolment ratio, 2011/2012 (B:65.9, G:73.6)       71.         Females as % males, secondary school, 2011/2012 (GPI)       10         Youth literacy rate over 15 years       60         Adult literacy rate over 15 years       60.         7. Health and Nutrition       2         Life expectancy at birth (years), 2011       2         Infant mortality rate (deaths per 1000 live births) 2011       4         Under 5 mortality rate (deaths per 1000 live births) 2011       4         Under 5 mortality rate (deaths per 1000 live births) 2011       4         Skilled attendance at birth, 2011 (%)       3         Children under 1yr immunized (DET3), 2011 (%)       3         Children under 1yr immunized (DET3), 2011 (%)       9         Children under 1yr immunized (DET3), 2011 (%)       8         Children under 1yr immunized (DEG), 2011 (%)       8	Total education sector expenditure as a % GDP, 2012/13 Total health sector expenditure as a % of GDP, 2012/13 Total social protection expenditure as a % of total expenditures, 2012/13 Total defense sector expenditure as a % of GDP, 2012/13	3.72 1.32 0.7 1.3
Export GDP ratio, 2012         4           Import GDP ratio, 2012         29           Total trade / GDP         33           Trade deficit / GDP         -24           Current account balance, 2012         1. <b>6. Education</b> 9           Primary School gross enrolment ratio, 2011/2012 (B:95,9, G:94,7)         95           Primary School gross enrolment ratio, 2011/2012 (B:52,6, G:32,7)         130           Secondary School gross enrolment ratio, 2011/2012 (B:69,9, G:73,6)         71.           Females as % males, secondary school, 2011/2012 (B:127,5, G:132,7)         100           Youth literacy rate (15-24 years), 2011/2012 (B:69,9, G:73,6)         71.           Females as % males, secondary school, 2011/2012 (GPI)         10           Youth literacy rate over 6 years         60.           Adult literacy rate over 15 years         60.           Adult literacy rate (264th per 1000 live births) 2011         2           Infant mortality rate (deaths per 1000 live births) 2011         2           Infant mortality rate (death per 1000 live births) 2011         5           Maternal mortality rate (death per 1000 live births) 2010         17           Prevalence of undernourishment in the population         15           Skilled attendance at birth, 2011 (%)         3           Children under	5. External Sector	
6. Education           Primary School net enrolment ratio, 2011/2012 (B:95.9, G:94.7)         95.           Primary School gross enrolment ratio, 2011/2012 (B:127.5, G:132.7)         130.           Secondary School net enrolment ratio, 2011/2012 (B:54.6, G:54.0)         54.           Secondary School gross enrolment ratio, 2011/2012 (B:69.9, G:73.6)         71.           Females as % males, secondary school, 2011/2012 (GPI)         10           Youth literacy rate (15-24 years), 2011/12         88.           Literacy rate over 6 years         60.           Adult literacy rate over 15 years         60.           7. Health and Nutrition         2           Life expectancy at birth (years), 2011         6           Total fortility rate (death per 1000 live births) 2011         2           Infant mortality rate (death per 1000 live births) 2011         5           Maternal mortality rate (death per 1000 live births) 2010         17           Prevalence of undernourishment in the population         15.           Skilled attendance at birth, 2011 (%)         3           Children under 1yr immunized (BCG), 2011 (%)         96.           Children under 1yr immunized (DPT3), 2011 (%)         8           Children under 1yr immunized (Measles), 2011 (%)         8           Children under 1yr immunized (Measles), 2011 (%)         8	Export GDP ratio, 2012 Import GDP ratio, 2012 Total trade / GDP Trade deficit / GDP Current account balance, 2012	4.0 29.0 33.0 -24.9 1.4
Primary School net enrolment ratio, 2011/2012 (B:95.9, G:94.7)       95.         Primary School gross enrolment ratio, 2011/2012 (B:127.5, G:132.7)       130.         Secondary School net enrolment ratio, 2011/2012 (B:54.6, G:54.0)       54.         Secondary School gross enrolment ratio, 2011/2012 (B:69.9, G:73.6)       71.         Females as % males, secondary school, 2011/2012 (GPI)       10         Youth literacy rate (15-24 years), 2011/12       88.         Literacy rate over 6 years       60.         Adult literacy rate over 15 years       60.         7. Health and Nutrition       2         Life expectancy at birth (years), 2011       6         Total fertility rate (death per 1000 live births) 2011       2         Infant mortality rate (death per 1000 live births) 2011       5         Maternal mortality rate (death per 1000 live births) 2010       17         Prevalence of undernourishment in the population       15         Skilled attendance at birth, 2011 (%)       3         Children under 1yr immunized (BCG), 2011 (%)       9         Children under 1yr immunized (BCG), 2011 (%)       9         Children under 1yr immunized (Measles), 2011 (%)       8         Children under 1yr immunized (Measles), 2011 (%)       8         Children under 1yr immunized (Measles), 2011 (%)       8         C	6. Education	
Females as % males, secondary school, 2011/2012 (GPI)10Youth literacy rate (15-24 years), 2011/1288.Literacy rate over 6 years60.Adult literacy rate over 15 years60. <b>7. Health and Nutrition</b> 6Life expectancy at birth (years), 20116Total fertility rate, 20112.Infant mortality rate (deaths per 1000 live births) 20114Under 5 mortality rate (death per 1000 live birth) 20115Maternal mortality rate (death per 1000 live births), 201017Prevalence of undernourishment in the population15.Skilled attendance at birth, 2011 (%)3Children under 1yr immunized (BCG), 2011 (%)91.Children under 1yr immunized (DPT3), 2011 (%)92.Children under 1yr immunized (Measles), 2011 (%)8Children under 1yr immunized (Measles), 2011 (%)8Children under 1yr immunized (Measles), 2011 (%)8Children under 1yr immunized (Measles), 2011 (%)0. <b>8. Others</b> 9Population using improved drinking water sources, 2012/13 (%)8Population using improved sanitation facilities, 2012/13 (%)6Employment Growth Rate2.Number of district headquarters with road connectivity (out of 75)7Installed capacity of electricity generation (in MW)758.Population with access to electricity (%)67.Irrigation (in hectares)13,111,00Forest coverage area (%)39.Total length of road transport (km)25,13	Primary School net enrolment ratio, 2011/2012 (B:95.9, G:94.7) Primary School gross enrolment ratio, 2011/2012 (B:127.5, G:132.7) Secondary School net enrolment ratio, 2011/2012 (B:54.6, G:54.0) Secondary School gross enrolment ratio, 2011/2012 (B:69.9, G:73.6)	95.3 130.1 54.3 71.7
7. Health and NutritionLife expectancy at birth (years), 20116Total fertility rate, 20112.Infant mortality rate (deaths per 1000 live births) 20114Under 5 mortality rate (deaths per 100,000 live birth), 201017Prevalence of undernourishment in the population15.Skilled attendance at birth, 2011 (%)3Children under 1yr immunized (BCG), 2011 (%)96.Children under 1yr immunized (DPT3), 2011 (%)91.Children under 1yr immunized (DPT3), 2011 (%)8Children under 1yr immunized (Measles), 2011 (%)8Children under 1yr immunized (Measles), 2011 (%)8Children under 5yr underweight prevalence, moderate and severe, 2011(%)28.Adult HIV/AIDS Prevalence rate (15-49 years), 2011(%)6Employment Growth Rate2.Number of district headquarters with road connectivity (out of 75)7Installed capacity of electricity generation (in MW)758.Population with access to electricity (%)67.Irrigation (in hectares)13,11,00Forest coverage area (%)39.Total length of road transport (km)25,13	Females as % males, secondary school, 2011/2012 (GPI) Youth literacy rate (15-24 years), 2011/12 Literacy rate over 6 years Adult literacy rate over 15 years	105 88.6 60.9 60.1
Life expectancy at birth (years), 20116Total fertility rate, 20112Infant mortality rate (deaths per 1000 live births) 20114Under 5 mortality rate (death per 1000 live birth) 20115Maternal mortality ratio (deaths per 100,000 live births), 201017Prevalence of undernourishment in the population15Skilled attendance at birth, 2011 (%)3Children under 1yr immunized (BCG), 2011 (%)96Children under 1yr immunized (DPT3), 2011 (%)91Children under 1yr immunized (Measles), 2011 (%)92Children under 1yr immunized (Measles), 2011 (%)8Children under 5yr underweight prevalence, moderate and severe, 2011(%)28Adult HIV/AIDS Prevalence rate (15-49 years), 2011(%)6Population using improved drinking water sources, 2012/13 (%)8Population using improved sanitation facilities, 2012/13 (%)6Employment Growth Rate2Number of district headquarters with road connectivity (out of 75)7Installed capacity of electricity generation (in MW)758Population with access to electricity (%)67Irrigation (in hectares)13,11,00Forest coverage area (%)39Total length of road transport (km)25,13	7. Health and Nutrition	
Population using improved drinking water sources, 2012/13 (%)8Population using improved sanitation facilities, 2012/13 (%)6Employment Growth Rate2.Number of district headquarters with road connectivity (out of 75)7Installed capacity of electricity generation (in MW)758.Population with access to electricity (%)67.Irrigation (in hectares)13,11,00Forest coverage area (%)39.Total length of road transport (km)25,13	Life expectancy at birth (years), 2011 Total fertility rate, 2011 Infant mortality rate (deaths per 1000 live births) 2011 Under 5 mortality rate (death per 1000 live birth) 2011 Maternal mortality ratio (deaths per 100,000 live births), 2010 Prevalence of undernourishment in the population Skilled attendance at birth, 2011 (%) Children under 1yr immunized (BCG), 2011 (%) Children under 1yr immunized (DPT3), 2011 (%) Children under 1yr immunized (Polio 3) 2011 (%) Children under 1yr immunized (Measles), 2011 (%) Children under 5yr underweight prevalence, moderate and severe, 2011(%) Adult HIV/AIDS Prevalence rate (15-49 years), 2011(%)	69 2.7 46 54 170 15.7 36 96.5 91.7 92.5 88 28.8 0.3
Population using improved drinking water sources, 2012/13 (%)8Population using improved sanitation facilities, 2012/13 (%)6Employment Growth Rate2.Number of district headquarters with road connectivity (out of 75)7Installed capacity of electricity generation (in MW)758.Population with access to electricity (%)67.Irrigation (in hectares)13,11,00Forest coverage area (%)39.Total length of road transport (km)25,13	8. Others	
Total length of road transport (km)39.25,13	Population using improved drinking water sources, 2012/13 (%) Population using improved sanitation facilities, 2012/13 (%) Employment Growth Rate Number of district headquarters with road connectivity (out of 75) Installed capacity of electricity generation (in MW) Population with access to electricity (%) Irrigation (in hectares)	85 62 2.9 73 758.0 67.3 13,11,000
	Total length of road transport (km)	39.6 25,133

## **Table of Contents**

	LDC Graduation Preparation Technical Team	ii
	Abbreviations/Acronyms	iii
	Major Development Indicators	iv
1.	Introduction	1
	1.1 About LDCs	1
	1.2 Global Context of LDC Graduation	2
	1.3 Nepal's Efforts Towards LDC Graduation	3
2.	LDC Graduation Criteria	4
3.	Current Socio-economic Situation	6
	3.1 Macroeconomic Situation	6
	3.2 Status on the LDC Graduation Criteria	8
4.	Methodology	. 12
5.	Gap Analysis and Projections	. 14
	6.1 Gross National Income (GNI) per Capita	. 15
	6.2 Human Assets Index (HAI)	. 17
	6.3 Economic Vulnerability Index (EVI)	. 18
6.	Investment Requirements	. 19
7.	Strategic Directions and Actions	. 21
	8.1 Macro Policy Directions and Actions	. 21
	8.2 GNI Focused Policy Directions and Actions	. 22
	8.3 HAI Focused Policy Directions and Actions	. 23
	8.4 EVI Focused Policy Directions and Actions	. 25
	8.5 Monitoring and Evaluation	. 27
8.	Conclusions	. <mark>28</mark>
Re	ferences	. 29
On	line Data Source	. 31
An	nexes	. 32
Ма	ps	. 51

### 1. Introduction

### 1.1 About LDCs

The least developed countries (LDCs) represent the poorest and weakest segment of the international community. LDCs are characterized by constraints such as low per capita income, low level of human development, and economic and structural handicaps to growth that limit resilience to vulnerabilities (UN, 2011).

The development of the LDC category has a history dating back to 1960s, when its establishment was advocated by developed countries at the first session of the United Nations Conference on Trade and Development (UNCTAD I), held in Geneva (1964). It was presented as an alternative to the idea of a single system of trade preferences for all developing countries. UNCTAD member States agreed to pay "special attention" to what at the time were called the less developed among the developing countries. However, the progress was not much up to the second session of the UNCTAD, held in India (1969). It emphasized on conceptualization of LDCs, need for identifying the LDCs and to examine various possible approaches to the question of identification.

In 1969, the UN General Assembly assigned the then Committee for Development Planning, a subsidiary body of the Economic and Social Council (ECOSOC), to carry out a comprehensive examination of the special problems of the LDCs and to recommend special measures for dealing with those problems.

The initial criteria for selecting a country least developed were a low per capita gross domestic product (GDP) and the presence of structural impediments to growth. The presence of such impediments was at the time perceived to be reflected in a small share of manufacturing in total GDP and in a low literacy rate. Based on these criteria, the Committee proposed a tentative list of 25 LDCs in 1971 and recommended that it be reviewed again in 1975. The Committee's list was approved by both the Economic and Social Council (ECOSOC) in July 1971 and by the UN General Assembly in November 1971. Thus, the category of LDCs was officially established in 1971 with a view to attracting special international support for the most vulnerable and disadvantaged members of the UN family.

Since its establishment, the list of LDCs is regularly reviewed with the provision of entry to and exit from the category. During the past four decades only four countries<sup>1</sup> have graduated out of the LDC category and other two countries<sup>2</sup> are scheduled to be graduated by 2017. In fact, the number of countries that fell into it has doubled since the 1970s. The current list of LDCs includes 48 countries; 34 in Africa, 13 in Asia and the Pacific and 1 in Latin America (Annex I).

<sup>&</sup>lt;sup>1</sup> Botswana (1994), Cape Verde (2007), Maldives (2011) and Samoa (2014).

<sup>&</sup>lt;sup>2</sup> Equatorial Guinea, and Vanuatu

#### **1.2 Global Context of LDC Graduation**

Since the 1980s, the United Nations has articulated decennial programs of action to support development in the LDCs. In order to generate international attention and action to reverse the continuing deterioration of the socio-economic condition of these most vulnerable countries, the First United Nations Conference on the LDCs was held in Paris in 1981. It adopted a comprehensive Substantial New Programme of Action for the 1980s for the LDCs.

To continue focus on the need for special measures for these countries, the Second UN Conference on the Least Developed Countries (LDC-II) was held in 1990, again in Paris, adopting the Paris Declaration and the Programme of Action for the LDCs for the 1990s. During the period, only Botswana succeeded to graduate from the LDC status in 1994. By the end of the 1990s, it was clear that the development strategies for the decade had not served the LDCs well and that a new approach was urgently needed.

The United Nations responded to this need in the Third UN Conference on the Least Developed Countries (LDC-III), in 2001, by adopting the Brussels Declaration and the Brussels Programme of Action for the LDCs for the Decade 2001-2010. This initiative was inspired by the values, principles and objectives of the Millennium Declaration.

The United Nations Office of the High Representative for Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS) was established by the UN General Assembly Resolution 56/227 as a follow-up mechanism to LDC-III to ensure effective follow-up, implementation, monitoring and review of the implementation of the Brussels Programme of Action for the LDCs for the Decade 2001-2010, adopted at that conference. However, only one country i.e. Cape Verde (2007) graduated from the LDC status during this period and some other countries including Maldives and Samoa prepared for graduation.

Despite three successive Programmes of Action and notwithstanding the positive developments recorded by LDCs in the recent past, most of these countries are far from meeting the internationally agreed goals, including the MDGs, and still face massive development challenges. Progress in economic growth has made little dent on poverty and social disparities in LDCs. Hunger and malnutrition are widespread with dire consequences for the large vulnerable populations (UN-OHRLLS, 2014).

With a view to exactly tackling that emergency and to reinvigorating the pledge in support of LDCs' development and transformation, the Fourth UN Conference on the Least Developed Countries (LDC-IV) held in Istanbul, Turkey (9-13 May 2011), adopted the Istanbul Programme of Action (IPoA) for the LDCs for the Decade 2011-2020. The overarching goal of the IPoA is "to overcome the structural challenges faced by LDCs in order to eradicate poverty, achieve internationally agreed development goals and enable graduation from the LDC category". This goal is expected to be achieved through national policies and international support, which focus on (a) achieving sustained, equitable and inclusive economic growth in LDCs of at least 7 per cent per annum; (b) building human capacities; (c) reducing the

vulnerability of LDCs to economic shocks and disasters, as well as climate change, and strengthening their resilience; (d) ensuring enhanced financial resources and their effective use; and (e) enhancing good governance at all levels. It specifically aims to enable half of the LDCs to meet the criteria for graduation by 2020 (UN, 2011). The IPoA was endorsed by the General Assembly Resolution 65/171 dated 17 June 2011 and called upon all stakeholders – specialized agencies and institutions, donors, private sector, experts from the civil society, academia etc – to commit to implementing the charter by 2020.

Being a member state of the United Nations and belonging to the LDC category, Nepal has targeted to graduate from the LDC status by 2022.

#### **1.3 Nepal's Efforts Towards LDC Graduation**

For the first time, Nepal was included in the LDC category as one of the 25 countries in 1971. The list expanded to 48 countries in 2014, out of which 34 are in Africa, 13 in Asia and the Pacific and one in Latin America. Since the inception of the categorization, only four countries to date have been graduated from the LDC category, viz. Botswana in 1994, Cape Verde in 2007, Maldives in 2011 and Samoa in 2014. Equatorial Guinea and Vanuatu are scheduled to graduate by 2017.

Efforts to achieve rapid socio-economic development have been an ongoing endeavor for over five decades in Nepal. A review of the past periodic development plans and their objectives as mentioned below reflect these concerns.

The objectives of the First to the Seventh Plan (1956-90) largely focused on increasing production and employment; fulfilling basic needs and raising the living standards of people; improving development administration; enhancing public and private sectors' contribution to economic development; accelerating economic growth and achieving economic stability; ensuring social justice, decentralizing development efforts, achieving regional balance, ensuring effective use of human resources; and managing population growth.

Similarly, the objectives of the subsequent Plans from the Eighth (1992-97) to the Tenth Plan (2002–07) focused on poverty alleviation and raising the living standards of the people along with sustainable development and social justice. In achieving these objectives, high, sustainable and broad-based economic growth, social sector and rural infrastructure development, targeted programs, and good governance were pursued as strategic policy interventions.

The Three Year Interim Plan (Eleventh Plan) (2007-10) and the subsequent Three Year Plan (Twelfth Plan) (2010-13) committed to bringing about a direct positive change in the living standards of the general people by reducing economic and human poverty in an effort to create a "Prosperous, Peaceful and Just Nepal". The Twelfth Plan also targeted Nepal's graduation from an LDC to a developing country by 2030. These plans have been major instruments for mainstreaming the concept of inclusive development.

As a signatory to the Declaration of Istanbul Program of Action (IPoA), Nepal revised the earlier target in May 2013 and committed to seeking graduation from an LDC category by 2022, in an effort to translate sooner the goal set by IPoA into a reality. This is reflected in the current Approach Paper to the Thirteenth Plan (2013-16).

### 2. LDC Graduation Criteria

The list of LDCs is reviewed every three years by the United Nations Economic and Social Council (ECOSOC), in the light of recommendations by the Committee for Development Policy (CDP) (UNCTAD, 2013).

In 1971, the then Committee for Development Planning, the predecessor of current CDP, identified and recommended the list of LDCs based on the understanding that LDCs were the low-income countries facing severe structural handicaps to growth. Thus, the initial criteria for designating a country as a least developed were a low per capita gross domestic product (GDP) and the presence of structural impediments to growth. The presence of such impediments was at the time perceived to be reflected in a small share of manufacturing in total GDP (in as much as a high degree of industrialization was seen to be the structural characteristic of developed or "advanced" countries), as well as in a low literacy rate (which would be an indication of a country's low level of human capital development) (UN, 2008). Since that time, the eligibility criteria and their components for identifying LDCs have been refined periodically.

The following three criteria were used by the CDP in the latest review of the list, in March 2012 (UNCTAD, 2012):

- a) A per capita income criterion, based on the three-year average estimate of the gross national income (GNI) per capita;
- b) A human assets criterion, involving a composite index (the Human Assets Index, HAI) based on two indicators of the education sector, and two indicators of the health sector; and
- c) An economic vulnerability criterion involves a composite index encompassing exposure and shock indices: the first containing four sub-indices and the later containing two sub-indices. This reveals the structural aspects of the economy.

Table 1 shows the indicators and indices as determined by UNDESA for graduation.

(1) Gross National Income (GNI) per capita
(2) Human Assets Index (HAI)
(2.1) Health and Nutrition Index (1/2)
Prevalence of Undernourishment in the Population (1/4)
Under-five Mortality (per 1,000 live births) (1/4)
(2.2) Education Index (1/2)
Gross Secondary School Enrolment Ratio (1/4)
Adult (15 and above) Literacy Rate (1/4)
(3) Economic Vulnerability Index (EVI)
(3.1) Exposure Index (1/2)
Size Sub-Index (Based on Population as of 1 <sup>st</sup> July) (1/8)
Location (Remoteness) Sub-Index (1/8)
Economic Structure Sub-Index (1/8)
Merchandise Export Concentration (1/16)
Share of Agriculture, Forestry and Fisheries in GDP (1/16)
Environment Sub-Index (Share of Population in Low-elevated Coastal Zones) (1/8)
(3.2) Shock Index (1/2)
Trade Shock (Export Instability) Sub-Index (1/4)
Natural Shock Sub-Index (1/4)
Victims of Natural Disasters (1/8)
Instability of Agricultural Production (1/8)

#### Table 1: LDC Graduation Criteria – Indicators and Indexes

Source: UNDESA, 2008 (Addendum January 2014)

For all three criteria, different thresholds are used for identifying cases of addition to the list of LDCs, and cases of graduation from it. A country will qualify to be added to the list if it meets the inclusion thresholds on all three criteria, provided it does not have a population greater than 75 million. Qualification for addition to the list will effectively lead to LDC status only if the government of the relevant country accepts this status. A country will normally qualify for graduation from LDC status if it has met graduation thresholds under at least two of the three criteria in at least two consecutive triennial reviews of the list. However, if the GNI per capita of an LDC is at least double the graduation threshold, the country will be deemed eligible for graduation, regardless of its performance under the other two criteria (UNCTAD, 2012).

The graduation thresholds are established at a higher value for the first two indicators (GNI and HAI) and at a lower value in the case of EVI than the inclusion threshold in order to minimize unwarranted changes and to lend stability to the list (UN, 2008). In the past three reviews by the CDP, the graduation thresholds were set at 20 percent above the inclusion threshold in case of GNI, 10 percent above the inclusion

threshold in case of HAI and 10 percent below the inclusion threshold in case of EVI. Table 2 shows the inclusion and graduation thresholds adopted over the last three reviews in 2006, 2009 and 2012.

Criteria	2006	2009	2012
Gross National Income (GNI) per capita (in US\$)			
Graduation Threshold	900.00	1086.00	1190.00
Inclusion Threshold	749.00	905.00	992.00
Human Assets Index (HAI)			
Graduation Threshold	64.00	66.00	66.00
Inclusion Threshold	58.00	60.00	60.00
Economic Vulnerability Index (EVI)			
Graduation Threshold	38.00	38.00	32.00
Inclusion Threshold	42.00	42.00	36.00

Table 2: Thresholds for Graduation and Inclusion

Source: UNCDP Reports (2006, 2009 and 2012)

### 3. Current Socio-economic Situation

#### 3.1 Macroeconomic Situation

The Nepalese economy is characterized by a low level of economic growth, subsistence agriculture, ever widening trade deficit, and low levels of domestic savings, among others. Population living under the national poverty line is estimated to have declined from 42 percent in 1995 to 23.8 percent in 2013; however income inequality is still high, as reflected in 0.33 Gini co-efficient.

In the external sector, the economy is facing trade deficit caused by the rapid increase in import as compared to export, since 1990s. The import/GDP ratio is estimated to be 29.0 percent while export/GDP ratio is only 4.0 percent; as a result trade deficit as a ratio of GDP has risen to 24.9 percent in 2012/13. The import exceeded export by over 7 fold in the fiscal 2012/13.

Despite continuous policy and program interventions especially during the Ninth Plan (1997-2002) period and thereafter, infrastructure development to respond the structural imbalances is still largely inadequate. This is reflected in the problems of the connectivity within the country, low proportion of population with access to electricity (67.3 percent, 2012), low access to sanitation (62.0 percent, 2012), low rate of adult (15 years and above) literacy (56.5 percent, 2012). In addition, wide variations exist in terms of socio-economic development between rural and urban areas, among eco-development regions, ethnic groups and occupational castes. Natural resources, especially water resources, are awaiting to be adequately utilized, despite that Nepal has one of the highest potentialities for hydropower development estimated at 83,000 MW.

A decade long political transition, a high consumption ratio (90.7 percent, 2012) and low gross domestic savings ratio (9.3 percent, 2012) as proportion of GDP, low quality portfolio investments, exceedingly limited scopes for generating financial resources, high cost for construction and maintenance and weak governance have all along been among the most serious challenges to the socio-economic development of the country. Table 3 highlights the status of the economy in 2012/13.

S.N.	Indicators	Status (2012/13)
1	Gross national income per capita (NRs.)	62,797.0
2	Gross national income per capita (US \$)	721.0
3	Annual economic growth rate (at basic price)	3.6
	- Agricultural growth rate	1.3
	- Industry	1.5
	- Service	6.0
4	Consumer Price Index Growth Rate	10.6
5	GDP Deflator Growth Rate	6.7
	- Primary Sector	6.2
	- Secondary Sector	9.3
	- Service Sector	6.3
6	Annual average employment growth rate	2.9
7	Revenue growth rate	18.5
8	Government expenditure growth rate	9.9
	- Recurrent expenditure	6.0
	- Capital expenditure	4.2
	- Financial provision	37.4
9	Total outstanding debt (NRs. in billion)	511.1
	- Outstanding domestic debt	211.7
	- Outstanding foreign debt	299.4
10	Per capita outstanding debt (NRs.)	18,780.0
11	Capacity of reserves to cover imports of goods & services (months)	8.7

**Table 3: Current Macroeconomic Situation** 

Source: NPC (2013), MoF (2013)

The Government has been making efforts to develop an enabling environment to accelerate the pace of development in partnership with the private, corporate and non-governmental sectors. Nepal initiated wide-ranging economic reform measures since early 1990s. It has encouraged the private sector (domestic as well as foreign) to invest in the social and economic development of the country, and privatization has got momentum in the last two decades.

In the health sector, the life expectancy at birth reached 69.1 years in 2011. Similarly, there are encouraging improvements in child mortality, school enrolment and literacy

rate over the years. The prevalence of underweight children aged 6-59 months reduced to 28.8 in 2011. The literacy rate of 15-24 years old reached 88.6 percent in 2011 (MoHP, 2011).

#### **3.2 Status on the LDC Graduation Criteria**

#### i. Gross National Income (GNI) per capita

In terms of augmenting the GNI, the country has not been able to make rapid headway. GNI per capita was estimated to be US\$ 721 in 2012/13 with an average annual growth of 8.9 percent during the last 12 years period.

The major determinants of growth in GNI can be approximated from the trend and behavior of value added by source. Table 4 indicates that services continue to remain a sector of faster growth as compared to other two sectors. The table reveals that for the faster growth of the overall economy, hindering constraints need to be identified both in agriculture and industry sectors and measures designed to address these constraints.

The slower growth has been a challenge for the government to create a congenial environment for agriculture, industry and trade sectors to flourish and thus contribute significantly to the economic growth of the country. In the recent past, the lack of an investment-friendly environment to the extent desired and the inadequate development of infrastructure, among others, have been hindrances for accelerating overall development process. More specifically, industrial insecurity, energy crisis, the deterioration of entrepreneur-employee relations and overall political instability have stymied progress in this sector.

The share of sectoral/sub-sectoral contribution to GNI for the fiscal 2012/13 is presented as follows:

S No	Sector	Gross Value	Growth Rate (%)	
5. NO.	360101	Rs. In billion	Share in GVA (%)	(2000/01~2012/13)
1	Agriculture and forestry	548.97	34.3	3.28
2	Fishing	6.62	0.4	6.59
	Agriculture	555.59	34.7	3.33
3	Mining and Quarrying	9.25	0.6	3.62
4	Manufacturing	98.71	6.2	1.55
5	Electricity, gas and water	20.29	1.3	4.90
6	Construction	110.46	6.9	3.36
	Industrial Sector	238.70	14.9	2.71
7	Wholesale and retail trade	230.58	14.4	2.14
8	Hotels and restaurants	29.14	1.8	3.84
9	Transport, storage and communications	147.15	9.2	6.10

Table 4: Gross Value Added (GVA) and its Sectoral Contribution

S No	Sector	Gross Value	Growth Rate (%)	
0. 110.	060101	Rs. In billion	Share in GVA (%)	(2000/01~2012/13)
10	Financial intermediation	67.21	4.2	8.77
11	Real estate, renting and business activities	135.53	8.5	4.06
12	Public Administration and defense	30.30	1.9	5.10
13	Education	86.20	5.4	7.22
14	Health and social work	22.02	1.4	7.87
15	Other community, social and personal services activities	56.76	3.5	7.81
	Service Sector	804.88	50.3	4.97
	Gross Value Added (GVA)	1599.17	100.0	4.01
	Financial intermediation indirectly measured FISIM	58.99		7.92
	GDP at basic prices	1540.18		3.87
	Taxes less subsidies on products	161.01		6.98
	GDP at producers price	1701.19		4.09
	Primary income, net	7.80		53.30
	Gross national income	1708.99		12.79
	Population (in million)	2.72		1.35
	GNI Per Capita (Rs.)	62786.6		10.41
	Exchange Rate (Rs./US\$)	87.1		1.40
	GNI Per Capita (US \$)	720.9		8.88

The service sector has over 50 percent contribution to GVA, whereas industrial sector contributes about 15 percent. The agriculture sector still contributes about 35 percent of the GVA. Although the growth of the service appears to be somewhat good, the same growth impulse has not been witnessed in the agriculture and industrial sectors. It has to be noted that the highest rate of growth has been recorded in the financial intermediation (8.77 percent per annum) during the 2000/01-2012/13 period, followed by health and social work (7.87 percent) and other community, social and personal services activities (7.81 percent).

#### ii. Human Assets Index (HAI)

One of the criteria for graduation to a developing country status is the Human Assets Index (HAI) consisting of two major determinants in each of the education and health sectors. Literacy and Gross Secondary School Enrolment Rate fall under the first category while prevalence of undernourishment in the population and under-five mortality (per 1000 live birth) under the latter.

Nepal has made a significant improvement in the social services sector. The School Sector Reform Program (SSRP) phase I and II brought about positive results in school education. The net enrolment rate in primary education reached 95.3 percent in 2012. The gross enrolment rate in secondary education increased reached 71.7 percent (net enrollment rate 54.3) in 2012 (MoE, 2013). Similarly, the adult literacy

rate for the age group 15 years and above reached 61.1 percent in 2012 (NPC, 2013) The literacy rate for the age group between 15 and 24 reached 88.6 percent in 2012 (NPC/UNCT, 2013).

Similarly, significant achievements have been made in the health sector as well. This sector has been successful in drawing the attention of the government, private, NGOs, CSOs and donor agencies in working together to improve the situation of the health sector and longevity of life of people. The life expectancy at birth as well as the rates of maternal, child and infant mortality have been improving. The under-five mortality rate (death per 1000 live births) is estimated at 42 in 2012 (UNSD, 2013). The following table repeals

Details		2006	2009	2012
Human Assets Index (HAI)		56.0	58.3	59.8
Health and Nutrition Index		71.4	73.0	78.3
Prevalence of undernourishment in the population	%	17.0	15.0	17.0
Under-five mortality (per 1,000 live births)	No.	88.0	88.0	49
Education Index		40.6	43.7	41.4
Gross Secondary School Enrolment Ratio	%	45.0	43.2	43.5
Adult (15 and above) Literacy Rate	%	49.0	56.5	59.0

#### Table 5: Human Assets Index (HAI) and its Component

Source: LDC data retrieval, UNDESA

Despite these developments, the message is that Nepal will have to do more in terms of improving these indicators. These demand policy intervention measures duly followed by effective program implementation and monitoring.

#### iii. Economic Vulnerability index (EVI)

Economic Vulnerability Index (EVI) is determined by several factors. Some of those can be influenced by means of the implementation of domestic policy measures such as influencing the size of population, diversifying the export products and markets, and enhancing the contribution of trade, increasing the productivity of agriculture, forestry and fisheries as well as trying to reduce instability in agriculture production. Other components of EVI such as location remoteness and trade shock are largely determined by external factors in which the role of domestic policy measures is probably very low or virtually non-existent. Likewise, the sub-criterion relating to share of population in low elevated coastal zones is not relevant to Nepal.

The country has been continuously managing its population growth through various policy initiatives. The past record has shown that Nepal has been able to achieve significant development in this front.

Nepal has close international markets in neighboring big economies – India and China which provides Nepal with both opportunity and challenges to insulate the

economy from its external linkages. This can be considered as an opportunity to reduce remoteness in influencing the magnitude of EVI.

Nepal's external trade has been characterized by exceedingly narrow and limited products and market concentration. This in itself is a challenge for Nepal to reduce instability arising out of such product and market concentration – an area which needs to be addressed by appropriate domestic measures in the days ahead. In view of both product and market concentration, Nepal is constantly exposed to external shocks emanating from the trade sector.

Similarly, Nepal is considered at high risk to disasters because of the nature of its steep geographical terrain and fragile soils; high levels of seismic activity; environment and climate change, including water-induced disasters, erosion and river meandering; and disasters induced by human activities. As a result, a constant threat exists to protect the lives and property of the people along with the physical infrastructure.

Realizing the seriousness of the issue, the Government has remained sensitive to adopting policies and taking necessary interventions to address both natural and man-made disasters. The Government aims at mainstreaming disaster management into the development process so that the risks and impacts of disasters are mitigated. It is in this context that the Approach Paper to the Thirteenth Plan aims at addressing shocks arising out of natural and human induced disasters through appropriate policy instruments. These policy instruments are included in the strategic policy and actions of this Graduation Strategy as an integral part.

		its comp	JIIEIILS	
Details	Unit	2006	2009	2012
Economic Vulnerability Index (EVI)	Index	37.4	33.6	27.8
Exposure Index	Index	41.5	31.2	26.6
Size Sub-Index	Index	20.1	19.2	18.3
Population (as of 1st July)	Million	27.1	28.8	30.5
Location (Remoteness) Sub-Index	Index	82.2	55.4	58.3
Economic Structure Sub-Index	Index	43.7	31.1	29.9
Merchandise Export Concentration	Index	24.0	5.5	5.2
Share of Agriculture, Forestry and Fisheries in GDP		38.0	34.0	33.2
Environment Sub-Index	Index	N/A	N/A	0.0
Share of Population in Low-elevated Coastal Zones		N/A	N/A	0.0
Shock Index		33.4	36.1	28.9
Trade Shock (Export Instability) Sub-Index	Index	28.8	36.2	22.6
Natural Shock Sub-Index	Index	37.9	36.0	35.2
Victims of Natural Disasters		0.6	0.9	0.7
Instability of Agricultural Production	Index	13.3	4.6	4.7

Table 6: Economic Vulnerability Index (EVI) and Its Components

*N/A:* Not Applicable for the corresponding reviews; source and note: ibid. as in Table 5 Source: LDC data retrieval, UNDESA

### 4. Methodology

This Strategy is the product of serious and comprehensive exercises undertaken by the Experts Team. The Team cautiously tried to employ the methodology prescribed by the UNDESA. The detail methodology has been given in Annex II for ease of references.

During the preparation of this Strategy Paper, series of consultations were held to discuss and deliberate upon several aspects of the Paper. These consultations were attended by representatives, drawn from different walks of national life that include stakeholders from political parties, government agencies, I/NGOs, civil societies and development partners.

In order to identify an appropriate and relevant growth trajectory, series of methods have been employed, based on time series data covering the period from 1992 to 2012. The figures are derived from authoritative sources. Every effort has been made to check and verify the sources as well as information used. It is the plan of the Study Team to continuously revisit the data as and when latest information becomes available.

An attempt has been made to follow closely the standard methodology as prescribed by UNCDP in its Handbook 2008 (Addendum 2014). Likewise, other forecasting methods have been employed to trace changes over time till 2021/22 with 2012/13 as the base year. Similarly, rigorous efforts have been employed to estimate required series of HAI and EVI based on available data (Annex II).

While carrying out the estimation of GNI per capita, two broad approaches of modeling under Keynesian macro-economic framework have been adopted. The modeling exercises comprise of investment requirement and econometric approaches. Exercises using both approaches have helped make analysis consistent and reliable. The transmission mechanism between the public and private sectors, inter-sectoral linkages and exogenous shocks are clearly identified. Since one of the major purposes is to improve GNI per capita, a sharper focus is given to growth-oriented transmissions while retaining its inter-linkages with the existing MDG indicators. A close relationship between factor productivity and economic growth has been recognized, following the methodology employed in MDG consistent Macroeconomic Model (MDGcMEM).

The Macroeconomic Model which also served as an input to the present exercise is disaggregated into six broad categories that include real sector, prices, fiscal, monetary, external and social sector blocks. Fiscal year data from 1992 to 2012 containing 21 observations have been used to estimate outputs. The model consists of 97 variables, including 60 endogenous and 37 exogenous variables. It has 67 equations (42 behavioral equations and 25 identities). Program algorithm is designed in EViews software.

In view of baseline projections, an attempt has been made to trace growth trajectory for the period 2012/13 - 2021/22. While doing so, gaps have been identified and

estimated quantitatively for all three indicators. For the projection of estimated trends, the following major assumptions have been considered:

- The average annual rate of economic growth is estimated to be 9.20 percent (at 2012/13 constant price) during 2013/14 2021/22. In order to achieve this rate of economic growth, change in terms of resource allocation pattern, increase in absorptive capacity of the economy, ensuring development friendly policy environment and effective planning process and other pertinent areas deserve priority consideration. This will result in reducing the size of ICOR, implying that the productive capacity of the economy will be increased in accordance with the requirement for warranted rate of economic growth to be achieved. Details are given in Annex III.
- Given the huge potentials for generating hydropower and the possibilities of expanding renewable energy resources, the investment in the energy sector will have to increase substantially. It is estimated that expenditure in the energy sector would be increased at an average annual rate of 26.5 percent at the constant prices of 2012/13 for initial five consecutive years and 19.4 percent for the remaining periods. The pattern of investment in this sector/sub-sector will be in favor of those projects whose outputs will be accrued to the economy prior to 2022. Those energy sector projects, whose gestation lag is less than 5 years as a general rule, will be preferred compared to those with longer lags. This is expected to reduce the size of ICOR from the existing 22 to 17.5 and thereby provide benefit to other sectors of the economy.
- Annual Population growth rate will remain at 1.35 percent in the first two years (2013/14 and 2014/15) and is estimated to reduce to 1.20 percent for the last two years (2020/21 and 2021/22). Details are given in Annex IV.
- No massive change is expected in the exchange rate of Rs. to US\$ which is assumed to be around Rs.102.9 per US\$ during the period.
- The improvement in investment portfolio as well as in institutional, procedural and regulatory environment will improve during the period in terms of accelerating the implementation process.
- GDP deflator would be maintained within 7 percent for the period.
- Number of tourist arrivals will increase at an average rate of 13 percent from the present 0.80 million to 2.13 million at the end year of the period (2021/22). This implies that the contribution of tourism sector to GDP will increase from the present 1.8 percent at the base year to 2.92 percent in 2021/22. During the same period, the direct employment to be provided will be increased from the present 160,000 to 444,000 (number of employment opportunities)<sup>3</sup>.
- The annual growth rate of Indian GDP in 2014 is assumed to be 5.5 percent followed by an increase of 0.5 percentage points for the two consecutive years,

<sup>&</sup>lt;sup>3</sup> The historical rate of growth of employment originating in the tourism sector is estimated at 11 percent per annum. In view of programs directed towards creating additional tourist destinations supported by the development of additional tourism infrastructure and policy reform, the linear growth of tourism inflow in Nepal is estimated to be around 12 percent per annum.

and constant growth of 7 percent for the remaining years of the out-sample period. Further, Indian inflation would be increased by 6 percent per year.

• The annual growth rate of Malaysian GDP would be 6.5 percent.

The model is simulated for two alternative scenarios with different assumptions. The result is expected to provide information on the gap between threshold GNI and baseline GNI projections. The scenarios include recommendations on policy interventions in the energy sector, creation of infrastructure, commercialization of agriculture and tourism sectors, among others.

### 5. Gap Analysis and Projections

The graduation thresholds for each of the three criteria are successively revised on triennial basis by UNCDP. So far, three such revisions have been made in 2006, 2009 and 2012 as can be seen in the following table/chart. During each triennial review, the CDP reviewed the threshold for each graduation criteria. The graduation threshold and Nepal's position, as reflected in UNDESA publications, are presented below.

The GNI measure used by the UNCDP is a three-year arithmetic average. As mentioned in UNDESA publications, the GNI for the year 2009 is calculated based on the data of 2005, 2006 and 2007. Similarly, GNI for the year 2012 is calculated based on the data of 2008, 2009 and 2010. Therefore, the data on Nepal used by UNDESA are found to be different from those of the real time data obtained from the national sources.

Details	2006	2009	2012
Gross National Income (GNI) per capita (in US\$)			
Graduation Threshold	900.00	1086.00	1190.00
Nepal's Position	243.33	320.00	420.00
Gap	-656.67	-766.00	-770.00
Human Assets Index (HAI)			
Graduation Threshold	64.00	66.00	66.00
Nepal's Position	56.03	58.34	59.83
Gap	-7.97	-7.66	-6.17
Economic Vulnerability Index (EVI)			
Graduation Threshold	38.00	38.00	32.00
Nepal's Position	37.40	33.60	27.80
Gap	0.57	4.35	4.23

#### Table 7: Graduation Threshold and Nepal's Position

Note: The UNDESA calculation is based on old data; therefore, it could be lower than the current situation of the country.

The gap of GNI per capita is US\$ 656.67 (73 percent) below the threshold in 2006, whereas the gap reached US\$ 766.00 and 770 (71 and 65 percent) below the threshold in 2009 and 2012 respectively. Similarly, the gap of HAI is 12.5 percent in 2006, whereas it is 11.6 and 9.3 percent below the threshold in 2009 and 2012, respectively. The gaps of GNI and HAI are gradually declining. In case of EVI, the status is above the threshold throughout the review period, showing that Nepal has already met this criterion.

#### 6.1 Gross National Income (GNI) per Capita

The GNI per capita is estimated to be US\$ 420 for 2012 (an average of three years – 2008, 2009, 2010) according to UNDESA. Therefore, the GNI per capita of 2012 is lower than that of the actual GNI figure of 2012. The GNI per capita reached US\$ 700 in 2012 as per the World Bank Atlas Method. If the past trend is of any guide to future, it will be difficult for Nepal to meet the projected threshold of US\$ 1,502 even by 2021, unless effective policy interventions are in place. Vigorus efforts are needed to achieve the projected GNI per capita of US \$ 2,094 in 2021 so that the economy is on the way to achieve the estimated threshold by 2021.

						(In US\$)
	2006	2009	2012	2015	2018	2021
1. Graduation Threshold *	900.0	1086.0	1190.0	1294.0	1398.0	1502.0
2. UNCDP Review	243.3	320.0	420.0			
3. Estimates of GNI per capita*			547.0	720.0	948.0	1503.0
4. GNI per capita for each Year			700.0	828.0	1261.0	2094.0
5. Gap (2-1)	-656.7	-766.0	-770.0			
6. Gap (3-1)			-643.0	-574.0	-450.0	1.0

#### Table 8: Gross National Income (GNI) per capita

\*: Thresholds beyond 2012 are estimates based on the historical trend

\*: Previous 3 years average

Note: In 2022, GNI per capita is estimated to reach US\$2484.00

The status and the projected scenario is also be presented in the following figure:



Figure 1: GNI per capita: Status, Gap and Projection

The above scenario indicates that with the accelerated efforts, the gap between average GNI per capita of Nepal and projected threshold will be narrower from 2015 onwards, and will meet in 2021. The details of yearly estimates of GDP and GNI per capita are given in Annex IV.

The targeted economic growth rate by three major sectors of the economy is presented in table 11. The average economy-wide growth rate for the planned period is estimated to be 9.2 percent. The sectoral growth rates for agriculture, industry and service sectors are 5.4, 10.1, and 11.0 percent respectively.

Sector			Ann	ual Eco	onomic	Growt	h (%)			Average
	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Average
Agriculture	4.4	4.8	5.5	5.6	5.7	5.8	5.8	5.6	5.6	5.4
Industrial Sector	4.9	6.2	7.3	10.2	11.2	12.4	13.0	13.0	13.1	10.1
Service Sector	6.4	7.8	8.9	11.0	12.8	13.5	13.6	13.4	12.2	11.0
GDP Growth Rate	5.6	6.5	7.5	9.2	10.3	11.0	11.2	11.1	10.6	9.2

Table 9: Targeted Economic Growth Rate

The agriculture sector growth rate is estimated at 4.4 percent for 2013/14, whereas 2019/20 is estimated to have the highest rate of 5.8 percent. Similarly, the growth rates for both industrial and the service sectors are also the lowest in 2013/14, but the industrial sector is estimated to have the highest rate of 13.1 percent in 2021/22, and the service sector the highest rate of 13.6 percent in 2019/20. The details are given in Annex III.

### 6.2 Human Assets Index (HAI)

The HAI is one of the principal components out of three indices. It consists of percentage of population undernourished and under five mortality rate, and gross secondary enrollment rate (defined as grades nine and ten) and adult literacy rate. The following table (Table 10) provides insights on HAI and the estimated gap.

	2006	2009	2012	2015	2018	2021
1. Graduation Threshold *	64.00	66.00	66.00	67.00	69.00	70.00
2. UNCDP Review	56.03	58.34	59.83			
3. Estimates of HAI *			67.23	70.49	74.04	77.22
4. Gap (2-1)	-7.97	-7.66	-6.17			
5. Gap (3-1)			1.23	3,49	5.04	7.22

Table 10: Human Assets Index (HAI)

\*: Thresholds beyond 2012 are estimates based on the historical trend.

\*: The projected HAI is liable to undergo changes depending upon the max-min reference of the corresponding figures used.

The calculation of HAI for 2012 is based on current data and estimates thereafter are based on 2012 constant max-min bound. Figure 2 demonstrates both the past trend and the projections for the future.





The above figure shows the HAI gap between the threshold and Nepal's status till 2012, and the gap is expected to exceed the threshold in 2015. Therefore, as far as HAI concerned, Nepal will be in a comfortable position. Since Nepal has been undertaking increasing investment activities in education and health sectors from both public and private sectors, indicators related to those sectors are significantly improving, with support from development partners, non-government organizations (NGOs) and civil societies. The government is expecting increasing support in these sectors in the days to come.

Further, the government has also made up to secondary level (grades 9 and 10) education free and has adopted incentives to improve enrolment, including those for quality education. Similarly, literacy program has been taken as a national campaign; therefore, the literacy rate is expected to increase at a faster rate so that in accordance with Nepal's commitment to achieve MDGs, the status of literacy will reach 100 percent – a commitment the government has reaffirmed in Common Minimum Program 2014.

The government is aware of challenges to achieve this target. The major ones are irregularities in class room teaching, lack of child friendly teaching and learning environment in schools, grasping new challenges of learning, monitoring the interventions, physical facilities and teaching-learning materials, and poverty. All these will be addressed through appropriate policy and program interventions.

Nutrition improvement and child health related interventions have long been a major focus in the health sector, and the improvement in these areas is also encouraging. Despite these improvements, there are many challenges such as the lack of an adequate supply of essential medicines, lack of competency among health workers, difficulty in providing access of healthcare facilities in remote areas, lack of repair and maintenance of physical facilities, and weak coordination among healthcare service providers.

A decrease in the prevalence of undernourishment in the population and under five mortality rate (per 1000 live birth) require intensive efforts on the part of the government with support from private sectors, NGOs, civil society and development partners. All these will help Nepal to sustain and further improve HAI.

#### 6.3 Economic Vulnerability Index (EVI)

The third criterion for the LDC graduation is the EVI which is measured through a composite index. EVI constitutes exposure and shock indexes. The former consists of variables such as population size, location, economic structure and environment while the latter includes trade and natural shocks. Table 11 and the figure 3 show the EVI trend and projections.

	2006	2009	2012	2015	2018	2021
1. Graduation Threshold *	38.00	38.00	32.00	31.00	29.00	27.00
2. UNCDP Review	37.43	33.65	27.77			
3. Estimates of EVI *			26.10	24.58	23.31	21.90
4. Gap (1-2)	0.57	4.35	4.23			
5. Gap (1-3)			5.90	6.42	5.69	5.10

Tahlo	11.	Economic	Vulnorability	Indox		١
i abie		ECONOMIC	vumerability	/ muex	( 🗆 V I)	,

\*: Thresholds beyond 2012 are estimates based on the historical trend.

\*: The projected EVI is liable to undergo changes depending upon the max-min reference of the corresponding figures used.

Nepal has been continuously meeting the EVI threshold level since the review of 2006. It is hoped that this will be continued with more effective interventions. Even if the threshold level increases, Nepal will remain comfortable.



As revealed in figure 3, the status of EVI as estimated by UNDESA for 2012 is higher than that of national review. It is estimated that the position will remain similar in 2015 as well.

### 6. Investment Requirements

The GNI per capita is targeted to meet the estimated threshold by 2021. To sustain the progress of HAI and EVI and achieve GNI target, a huge investment is required. Table 12 gives the estimation of annual investment requirements at constant price of 2012/13, and Table 13, at current price. Further, the tables also provide public and private sector investment requirements, which show that out of the total requirement, the share of public and private sector is 30.74 percent and 69.24 percent respectively for the year 2013/14. The share of both the sectors remains more or less similar throughout the plan period.

Nepal needs investment to the tune of Rs. 427.73 billion (at constant prices) for year 2013/14, which will reach Rs. 1,722.52 billion for 2021/22 assuming that the need for investment requirement grows at the rate of 19 percent per annum. In total, for the entire period, the estimated investment requirement equivalent to Rs. 9,696.76 billion (at constant price) will be needed to meet the GNI target. In terms of current prices, the estimated amount will be Rs. 16,754.85 billion.

Total investment estimation by 15 sectors of national income as well as public and private sector investment is given in Annex V.

	(Rs. In billion												
S No	Sector	Annual Investment											
5.NO.	Sector	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Total		
1	Agriculture	73.85	84.02	100.92	108.54	115.94	123.81	132.28	133.55	141.00	1,013.91		
1.1	Public Sector	21.42	26.89	34.31	37.99	41.74	45.81	48.94	49.41	52.17	358.68		
1.2	Private Sector	52.44	57.13	66.61	70.55	74.20	78.00	83.34	84.13	88.83	655.23		
2	Industrial Sector	68.93	88.32	103.94	156.60	191.08	235.51	280.13	319.30	364.06	1,807.87		
2.1	Public Sector	20.79	25.91	28.39	42.63	52.67	65.80	79.41	91.86	106.28	513.73		
2.2	Private Sector	48.15	62.41	75.55	113.97	138.41	169.71	200.72	227.44	257.79	1,294.15		
3	Service Sector	284.95	360.40	445.89	601.91	780.20	928.35	1,061.64	1,194.20	1,217.46	6,874.98		
3.1	Public Sector	87.94	112.30	140.90	197.86	256.15	290.37	331.46	382.66	396.41	2,196.07		
3.2	Private Sector	197.00	248.10	304.99	404.05	524.05	637.98	730.18	811.53	821.04	4,678.91		
	Total Requirement	427.73	532.74	650.75	867.05	1,087.21	1,287.66	1,474.05	1,647.05	1,722.52	9,696.76		
	Public Sector	130.15	165.10	203.60	278.48	350.56	401.98	459.81	523.94	554.86	3,068.48		
	Private Sector	297.58	367.64	447.15	588.57	736.66	885.68	1,014.24	1,123.11	1,167.66	6,628.29		

Table 12: Total Investment Requirement (at Constant Price of 2012/13)

#### Table 13: Total Investment Requirement (at Current Price)

								,			(Rs. In billion)
S N	Sector				An	nual Investme	ent				Total
5.N.	Sector	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	TOLAI
1	Agriculture	77.51	92.54	116.70	131.86	148.06	166.23	186.84	198.67	220.96	1,339.36
1.1	Public Sector	22.48	29.61	39.68	46.15	53.30	61.51	69.13	73.51	81.75	477.12
1.2	Private Sector	55.03	62.93	77.02	85.71	94.76	104.73	117.71	125.16	139.20	862.24
2	Industrial Sector	74.60	103.47	131.88	215.20	284.37	379.62	489.12	603.96	746.07	3,028.29
2.1	Public Sector	22.43	30.16	35.65	57.76	77.01	103.80	135.16	168.71	210.60	841.29
2.2	Private Sector	52.17	73.31	96.23	157.43	207.36	275.82	353.96	435.25	535.47	2,187.01
3	Service Sector	311.13	429.93	582.59	856.28	1,217.93	1,610.59	2,030.29	2,521.93	2,826.52	12,387.19
3.1	Public Sector	95.11	131.76	179.84	272.99	387.51	497.41	626.80	805.55	909.84	3,906.81
3.2	Private Sector	216.03	298.18	402.75	583.30	830.42	1,113.18	1,403.49	1,716.37	1,916.67	8,480.38
	Total Requirement	463.24	625.94	831.18	1,203.33	1,650.37	2,156.44	2,706.25	3,324.55	3,793.54	16,754.85
	Public Sector	140.01	191.53	255.17	376.90	517.83	662.72	831.09	1,047.77	1,202.20	5,225.22
	Private Sector	323.23	434.41	576.00	826.43	1,132.54	1,493.72	1,875.16	2,276.78	2,591.34	11,529.63

### 7. Strategic Directions and Actions

Among the three criteria for LDC assessment, Nepal has already met the EVI threshold level and is very close to meeting the HAI criteria; however, there is a huge gap between the GNI threshold level and Nepal's present status.

The country is facing the problems like high rate of poverty, huge trade deficits, high underemployment rate, income inequality and low quality of life. Several factors including subsistence agriculture, deteriorated industrial environment, power shortage, and weak public service delivery mechanism have led to a low level of economic growth and development. Therefore, a great challenge exists to sustain the achievements and narrow down the gaps between GNI threshold level and the current status. Strategic directions and actions will be heading towards sustaining achievements in EVI, improving the status of HAI and accelerating GNI per capita.

#### 8.1 Macro Policy Directions and Actions

Nepal will make additional efforts to create a congenial environment for creating new employment, increasing productive capacity and pertaining structural transformation policy. The relevant strategies and interventions are presented as follows:

#### **Directions**

- Forward looking macro-economic policies will be pursued to address structural impediments and other policy challenges.
- Domestic as well as foreign resource mobilization measures will be taken to meet the financial resource requirement for fostering employment centric growth.
- Efforts will be made to improve investment environment to activate productive capabilities in socio-economic sectors.
- The contributions of the public, private and cooperative sectors will be enhanced to accelerate economic growth.
- Investment policy towards transforming low productive sectors to that of high productive sectors will be adopted.
- The thrusts of policy directions of inclusive growth, green economy and LDC graduation frameworks will be integrated into periodic development plans and streamlined for their implementation for bringing balanced and better results.
- Monitoring and evaluation system will be improved.

#### Actions

• Parliamentarians and policy-makers will be sensitized in enhancing socioeconomic and political opportunities towards contributing to the LDC graduation process.

- Existing industrial incentives and subsidy policy will be reviewed, and improved to motivate productive sectors.
- Tax policy will be reviewed and foreign aid policy will be revised to mobilize additional financial resources and use them effectively for economic growth.
- Existing legal and policy framework will be revised and new ones will be developed for enhancing economic and social sector activities.
- Public-private-partnership (PPP) framework will be developed and rendered functional in increasing the contributions of public, private and cooperative sectors to improve the socio-economic condition.
- Sectoral productivity will be analyzed and a low productive sector will be gradually transformed to a higher productive sector.
- Investment will be channelized to the priority sectors based on the analysis.
- Frameworks for inclusive growth and development, and green economy will be developed. This will also be supportive for LDC graduation process.
- Research and development efforts will be given more attention.
- Revenue administration will be strengthened.
- Capabilities of stakeholders concerned will be enhanced in evidence based planning, implementation, monitoring and evaluation.
- Capital expenditure will be increased in required sectors and inflation will be contained within desired level.

### 8.2 GNI Focused Policy Directions and Actions

Meeting the GNI per capita threshold level is very challenging for Nepal as compared to the other two criteria. Therefore, possible macroeconomic policy options are required to bridge the gap between the current status and the LDC graduation threshold of GNI per capita. These options are:

#### Directions

- Priority-based investment policy will be adopted to accelerate economic growth.
- The benefits of industry, trade and commerce will be expanded to the local level.
- Goods and services produced by using local resources and skills with high comparative advantages will be promoted.
- Policy measures will be taken to channelize remittances to productive activities.
- Gainful employment and self-employment opportunities will be promoted with rural–urban linkages.
- Commercialization of agriculture produces and community farming will be promoted.
- Land use policy will be effectively implemented.

• Tourism will be developed as one of the key sectors of economic development.

### Actions

- The leading sectors/sub-sectors like hydro-power, industries, tourism, agriculture, infrastructure, and services will be prioritized based on their potential contribution to GNI and investment will be channelized accordingly.
- Growth centers of economic and service activities at regional and local level will be identified; such centers will be facilitated to strengthen and functionalize to increase their capabilities and productivity.
- Export of goods produced using local raw materials, resources, and skills will be promoted.
- Area-specific agricultural and industrial products (such as livestock, horticulture, sericulture and agro based industry) will be identified and promoted.
- Appropriate modern technology will be adopted in the agriculture sector.
- Community farming will be supported with due focus as per the community demand.
- Natural, religious, historical, sports and medical tourism will be promoted. Hill stations, home-stay, tourist friendly level-wise hotel facilities and services will be developed.

### 8.3 HAI Focused Policy Directions and Actions

In both the education and the health sectors, the progress has been encouraging as a result of the past intensive interventions and incentives. The indicators related to adult literacy rate, secondary education enrolment rate, under-five child mortality rate and child malnutrition rate have been noticeably improved. Hence, the HAI is close to the graduation threshold level; yet, it needs strategic interventions for further improvement. The strategic directions and actions focusing on HAI are briefly presented as follows:

#### i. Health and Nutrition Sub-index

Health is one of the fundamental human rights of the citizen. Although Nepal has improved many indicators relating to health, many citizens, especially from marginalized communities, are still deprived of even basic health services.

Reduction of under-five child mortality rate and malnutrition is needed to improve the health index. The existing policy and programs have focused on child health and nutrition. Such interventions will be continued in the future with further strategic focus.

#### Directions

- Possible alternatives to quality basic health services will be made free of cost and accessible to all people.
- Health service delivery mechanism will be strengthened.

- Child health related interventions will be reviewed and expanded to rural areas.
- Systematic immunization and child health financing will be given more attention.
- Multi-sectoral nutritional intervention will be strengthened in PPP model.

#### Actions

- Basic health service providing institutions at community level will be promoted based on the size of the population.
- Public health clinics at all wards of municipalities will be established and expanded as required.
- The capacity of health institutions will be augmented with required resources physical facilities, equipment, human resources and drugs.
- Immunization programme (e.g., BCG, OPV, Pentavalent, measles, TT, JE, etc.) including required drugs will be made available timely to rural areas.
- Cold-chain management in all 75 districts will be managed.

#### ii. Education Sub-index

Gross secondary school enrollment ratio and adult literacy rate determine education index. The strategic directions and actions to improve this index are as follows:

#### **Directions**

- Special incentives for enrolment and retention in secondary education will further be focused.
- There will be accelerated efforts for improving student especially girls-friendly school environment.
- Literacy campaign will be expanded to the unreached sections of the society.

#### **Actions**

- The hardcore group of out-of school children and their needs will be identified and required measures will be adopted and implemented.
- Water and sanitation facilities including separate toilets for girls will be increased at schools.
- Various teacher training packages will be integrated for more effective teaching– learning and child-friendly education.
- Efforts will be strengthened to develop more student especially girls-friendly school environment such as, student-friendly teaching-learning, water and sanitation facilities.
- Collaboration between public and private schools will be improved for quality education.

• Literacy program will be expanded to hitherto unreached communities and families in partnership or coordination with local level actors – local bodies and civil societies.

### 8.4 EVI Focused Policy Directions and Actions

EVI is the composite index of 8 different indicators out of which, 7 indicators are of concern for Nepal to address (as there is no population in low elevated coastal area and so Nepal gets full score in this sub-index). Though Nepal has already met the EVI threshold level, the next step is to sustain the achievements.

#### i. Size Sub-Index (Population)

The strategic direction and actions will be toward maintaining stability in population growth. So, the following strategic directions and actions will be adopted:

#### **Directions**

- Total fertility rate (2.1) will be achieved at replacement level.
- Population dividend will be achieved emanating from an increase in youth population (age group 15-24).
- Population growth will be managed with support from all sections of the society.

#### Actions

- Massive services will be made available in all parts of the country with regards to the provision of family planning contraceptives.
- Population education and awareness raising activities will be expanded to the family level.

#### ii. Location Sub-Index (Remoteness)

To reduce trade remoteness, following strategic directions and actions will be adopted:

#### Direction

• Preference will be given to international trade with neighboring countries with comparative advantage.

#### **Actions**

- Advocacy will be done for regional free trade.
- Transport facility will be increased national and international so that the connectivity, both internal and external could be improved.

#### iii. Merchandise Export Concentration

#### Directions

- Priority will be given to high growth in manufacturing and service sectors.
- Manufacturing sector will be encouraged to adopt appropriate modern technology.

#### Actions

- Diversification of merchandise export basket and quality of products will be improved.
- Nepal Trade Integration Strategy (NTIS) 2010 will be reviewed aiming at improving productive sectors and increasing export promotion.

#### iv. Share of Agriculture and Fishery in GDP

Focus will be given to the agriculture sector including fishery sub-sector with introduction of appropriate technology to increase productivity.

The backward and the forward linkage of agriculture and fishery will be improved with the service sector.

#### v. Instability of Export of Goods and Services

#### **Directions**

• The present investment incentives will be reviewed, and improved for capacitating the private and corporate sector and attracting them for increased investment in the trade, commerce and industrial sectors.

#### **Actions**

- Export will be promoted by managing value addition and value chains and by increasing the production and productivity of the exportable goods and services identified in the Trade Policy and the Nepal Trade Integrated Strategy that will contribute to reducing the instability of exports of goods and services.
- Effort will be made in enhancing trade capacity of the private sector by mobilizing aid-for-trade through economic diplomacy.

#### vi. Victims of Natural Disaster

#### Direction

 Disaster risk management and climate change issues will be integrated to other relevant sectors.

#### **Actions**

- Capacity development interventions will be carried out for disaster preparedness and response in order to face the exigencies of disaster including protecting and promoting natural resources and the environment as well as supporting climate change adaptation.
- Awareness on disaster preparedness and response as well as climate risk management will be raised to the stakeholders concerned from the central level to the community level.

#### vii. Instability of Agriculture Production

#### **Directions**

- The government will make effort to reduce the instability of agriculture production, diversification and quality enhancement of products, development of rural infrastructure, and mechanization of agricultural processes.
- Climate change adaptive farming will be developed.

#### Actions

- Efforts will be accelerated to develop year round irrigation by adopting alternatives.
- Research and development programs will be focused with due consideration of climate change adaptive seeds and techniques.
- Farmers' access will be increased to improved seeds and fertilizers.

#### 8.5 Monitoring and Evaluation

A result-based monitoring and evaluation plan will be developed, and a close monitoring will be undertaken to ensure that result based implementation is given adequate attention that it deserves. Each year, an updated information on the interventions and achievements will be prepared. This will be mainstreamed into regular monitoring and evaluation system of the National Planning Commission, and the results or progress will be disseminated among key stakeholders.

Based on the progress achieved, the macro as well as sectoral targets will be revised if required. Hence, at the end of every plan period, a rigorous study will be an ongoing exercise to respond to the evolving changes in the economy.

### 8. Conclusions

The Government of Nepal has been effortful to improve the socio-economic situation of the country since it began planned economic development process. During the entire period, emphasis has been laid on production, employment generation, poverty reduction, balanced and inclusive development, among others.

Despite long political transition, low investment in GNI determinant sector and subsectors, lack of infrastructure facilities and high cost of construction and maintenance and weak governance, Nepal is improving its socio-economic condition gradually.

Given the opportunity of utilizing natural, financial and human resources including technology, and prospects of enhancing development results mainly through structural and policy reforms, good governance, restoration of peace and security, and political stability; the Government is committed to graduate from the status of LDC by the year 2022.

The gap analysis reveals that Nepal has already met EVI and is on the way to meeting HAI criteria. Nonetheless, opportunities exist to push forward development activities in order to maintain and promote these criteria, while the UNCDP reviews the status of LDC in the year 2015 and 2018. Nepal is expected to meet the GNI criteria only in the UNCDP review of 2021.

For the purpose of sustaining and meeting these criteria of the EVI, HAI and GNI, strategic policy and program interventions will be designed, adopted, executed and monitoring and supervision made on a priority basis. External support will also be solicited from the present and potential development partners in the development process.

The government is well aware that Nepal has yet to cover a long distance towards socioeconomic development but it can make a measurable impact during the period, provided there is a stable government, good investment climate, and a greater degree of political stability with development agendas receiving the attention they deserve.

#### References

- ADB. (2013) Policy Options Report ADB, Asian Development Bank Publication, 7762-ENEP.
- CAAN. (2012a) National Transport Plan: Current situation diagnostic, Civil Aviation Authority of Nepal, Kathmandu.
- CBS. (2012b) *National Population and Housing Census 2011 (National Report)*, Central Bureau of Statistics, Kathmandu, Nepal.
- CBS. (2013a) National Account Estimates 2013, Central Bureau of Statistics, Kathmandu, Nepal
- CBS. (2013b) *Statistical Information of Agriculture 2011/12*, Central Bureau of Statistics, Kathmandu, Nepal.
- CBS. (2013d) *Nepal Living Standard Survey 2010/11, Statistical Reports Vol I & II*, Central Bureau of Statistics, Kathmandu, Nepal.
- FAO. (2010) A Rapid situation assessment on agriculture migration in Nepal, Food and Agriculture Organization
- GoN. (2014) Common Minimum Program, a document released by the government of Nepal.
- IEA. (2013) World Energy Outlook, International Energy Agency
- MoAD. (2013) *Nepal Agriculture Development Strategy-2013*, Ministry of Agriculture Development, Kathmandu, Nepal.
- MoF. (2013a) Economic Survey FY 2012/13, Ministry of Finance, Kathmandu, Nepal.
- MoF. (2013b) *Public Statement on Income and Expenditure for the Fiscal Year 2013/14*, Ministry of Finance, Kathmandu, Nepal.
- MoHP. (2011) *Nepal Demographic and Health Survey* MoHP, Ministry of Health and Population, Kathmandu, Nepal.
- Molr. (2013) Irrigation Policy 2013, Ministry of Irrigation, Kathmandu, Nepal.
- MoLRM. (2013) *Land Use Policy-2013*, Ministry of Land Reform and Management, Kathmandu, Nepal.
- MoTCA. (2009) Tourism Vision 2020, Ministry of Tourism and Civil Aviation, Kathmandu, Nepal.
- NPC. (2012a) *Millennium Development Goals Consistent Macroeconomic Model (MDGcMEM)*, National Planning Commission, Kathmandu, Nepal.
- NPC. (2012b) Development Vision 2030, National Planning Commission, Kathmandu, Nepal.
- NPC. (2013a) *An Approach Paper to the Thirteenth Plan FY 2013/14 to 2015/16*, National Planning Commission, Kathmandu, Nepal.
- NPC. (2013b) Nepal Millennium Development Goals Progress Report 2013, National Planning Commission, Kathmandu, Nepal.
- NPC. (2013c) Nepal rapid assessment and gap analysis sustainable energy for all, National Planning Commission, Kathmandu, Nepal.
- NRB. (2013) Monetary Policy for 2013/14, Nepal Rastra Bank, Kathmandu, Nepal.
- NRB. (2013) Quarterly Economic Bulletin FY 2012/13, Nepal Rastra Bank, Kathmandu, Nepal.
- UNCTAD. (2006) *The Least Developed Countries Report 2006: Developing Productive Capacities.* United Nations publication, Sales No. E.06.II.D.9. New York and Geneva

- UNCTAD. (2009) The Least Developed Countries Report 2009: The State and Development Governance. United Nations publication, Sales No. E.09.II.D.9. New York and Geneva
- UNCTAD. (2012a) The Least Developed Country Report 2012: Harnessing Remittances and Diaspora Knowledge to Build Productive Capacities. United Nations Publication, Sales No. E.12.II.D.18. New York and Geneva
- UNCTAD. (2012b) Enabling the Graduation of LDCs: Enhancing the Role of Commodities and Improving Agricultural Productivity. United Nations Publication. New York and Geneva
- UNCTAD. (2013) The Least Developed Country Report 2012: Growth with employment for inclusive and sustainable development. United Nations Publication, Sales No. E.13.II.D.1. New York and Geneva
- UNESCAP. (2013) Year-end Update, Economic and Social Survey of Asia and the Pacific (2013).
- UNESCAP et al. (2013) Asia Pacific Aspirations: Perspectives for a post -2015 Development Agenda, UNESCAP, ADB and UNDP
- United Nations. (2006) Committee for Development Policy: Report on the Eighth Session (20–24 March 2006). Economic and Social Council. Official Records, 2006. Supplement No. 13. (E/2006/33). New York
- United Nations. (2008) Handbook on the Least Developed Country Category: Inclusion, Graduation and Special Support Measures (with amendments in 2014). United Nations publication Sales No. E.07.II.A.9. New York
- United Nations. (2009) Committee for Development Policy: Report on the Eleventh Session (9–13 March 2009). Economic and Social Council. Official Records, 2009. Supplement No. 13. (E/2009/33). New York
- United Nations. (2011) Programme of Action for the Least Developed Countries for the Decade 2011–2020. Fourth United Nations Conference on the Least Developed Countries, Istanbul, 9-13 May 2011 (A/CONF.219/3). United Nations. New York.
- United Nations. (2012) Committee for Development Policy: Report on the Fourteenth Session (12– 16 March 2002). Economic and Social Council. Official Records, 2009. Supplement No. 13. (E/2012/33). New York.

### Online Data Source

- http://www.cbs.gov.np (Central Bureau of Statistics, Government of Nepal)
- http://www.cepii.fr/anglaisgraph/bdd/distances.htm (CEPII Database on geographic distance)
- Error! Hyperlink reference not valid. (FAO Food Security Statistics)
- http://www.faostat.fao.org/site/612/default.aspx#ancor (FAO Agricultural Production Indices)
- http://esango.un.org/sp/ldc\_data/ (LDC data retrieval, UNDESA)
- http://www.un.org/en/development/desa/policy/cdp/ldc/ldcdata.shtml (LDC Data Retrieval - Previous LDC Review Data in 2006, 2009 and 2012)
- http://www.data.worldbank.org/ (World Bank Database) http://www.esa.un.org/undp/wpp/Exceldata/mortality.htm
- http;//data.un.org;
- http://www.esa.un.org/unpd/wpp/sorting-tables/tab-sorting\_population.htm;
- http://www.stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx;
- http://www.unctadstat.unctad.org;
- http://www.unstats.un.org/unsd/snaama;
- http://www.imf.org/external/data.htm;
- http://www.un.org/en/en/development/desa/policy/cdp/ldc/ldc data.shtm;
- http://www.unesco.org;
- http://www.data.un.org/Data.aspx?d=MDG&f=seriesRowID%3a561
- http://data.un.org/Data.aspx?d=MDG&f=seriesRowID3a566
- http://data.un.org/Data.aspx?d= UNESCO&f=series3aGER\_23
- http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx
- http://sedac.ciesin.columbia.edu/gpw/lecz.jsp (UNCTAD database)
- http://www.data.un.org/ (UN Data)
- http://www.esa.un.org/unpd/wpp/index.htm (UN DESA, World Population Prospects Database)
- http://www.uis.unesco.org (UNESCO Institute for Statistics)
- http://www.unstats.un.org/unsd/snaama/ (UN Stats, National Accounts Main Aggregates Database)
- http://www.un.org/en/development/desa/policy/cdp/ldc/sp/ldc data/web/StatPlanet.html
- UN Stats, Planet (Latest LDC Review Data in 2012) at
- http://www.emdat.be (WHO Emergency Disaster Database)
- http://www.iea.org/ newsroomandevents/speeches/131112\_WEO2013\_presentation

Annex I

LDC category timel	ine
2017	Equatorial Guinea, <sup>a</sup> Vanuatu <sup>a</sup>
2014	Samoa <sup>b</sup>
2012	South Sudan
2011	Maldives <sup>b</sup>
2007	Cape Verde <sup>b</sup>
2003	Timor-Leste
2000	Senegal
1994	Botswana <sup>b</sup>
+	Angola, Eritrea
1991	Cambodia, Democratic Republic of the Congo, Madagascar, Solomon Islands, Zambia
1990	Liberia
1988	Mozambique
1987	Myanmar
1986	Kiribati, Mauritania, Tuvalu
1985	Vanuatu
1982	Djibouti, Equatorial Guinea, Sao Tome and Principe, Sierra Leone, Togo
1977	Cape Verde, <sup>b</sup> Comoros
1975	Bangladesh, Central African Republic, Gambia
1971	Afghanistan, Benin, Bhutan, Botswana, <sup>b</sup> Burkina Faso, Burundi, Chad, Ethiopia,
	Guinea, Haiti, Lao People's Democratic Republic, Lesotho, Malawi, Maldives, Mali,
	Nepal, Niger, Rwanda, Samoa, Sikkim, <sup>©</sup> Somalia, Sudan, Uganda, United Republic of
	Tanzania, Yemen

#### List of Existing LDCs and Graduated Countries

Source: Report of the Committee for Development Policy, various issues.

a Scheduled for graduation.

**b** Graduated from the list.

c At the time, a protectorate of India.

#### Annex II

#### **Methodology of Projection**

#### a) Projection Methodology of GNI

The National Planning Commission formed a technical team to work on the information and indicators of LDC graduation criteria in December, 2013. The team worked intensively in collecting and refining information related to mainly 3 criteria of LDC graduation. In this process, international consultant also provided technical support to come up with refined estimates. The team worked based on the following five stages:

- Reviewing the existing database and establishing consistency.
- Building the macro-econometric model consistent with LDC graduation approach.
- Understanding the current state of Nepal's LDC graduation indicators compared to the thresholds as estimated by UNDESA as well as by the Macro-economic Modeling Team (MMT).
- Working out LDC indicators up to 2021/22 through a baseline projections from 2012/13.
- Identifying the policy options to meet the graduation threshold.

#### b) Definition of the Variables

The variables and their definitions of macro-economic model are as follows:

Variable	Name	Variable	Name
BCAB	Current Account Balance	PTB91	91 days Treasury Bill Rate
BCAT	Capital Transfer	PWPII	Wholesale price index of India
BCTP	Current transfer Payment	PY	GDP deflator
BCTR	Current transfer Receipt	SAE	Agriculture Employment
BFEO	Financial A/C net, Miscellaneous, Error and Omission	SIE	Industry Employment
BGM	Goods import	SLP	Land Productivity
BGSM	Import Goods and services	SPGAP	Poverty Gap
BGSTB	Balance on Goods and Services	SPOP	Population
BGSX	Export Goods and Services	SPOV	Poverty Rate
BGTB	Balance on Goods	SSE	Service Employment
BGX	Goods export	STOCK	Change in Stock
BIP	Income Payment	TOUREAR	Earning from Tourism
BIR	Income Receipt	TOURIST	Tourist arrival
BNFI	Net Factor income	XILR	Indian Lending Rate
BNFL	Net Foreign Loan Drawings	XINDY	Indian GDP at market prices (billion Irs in real term)
BNSR	Net Service Receipts	XMALY	Malaysia GDP (Source: IFS)
BNTR	Net current transfer excluding remittance	XMENAY	MENA GDP (source: IMF)
BOP	Balance of Payment	XMEY	Middle East GDP (from IMF)
BREM	Remittance including Pension	YA	Agriculture GDP
BSP	Service Payment	YAI	Investment in Agriculture Sector
BSR	Service receipts	YAK	Capital Stock in Agriculture
GBB	government budget balance	YAR	Agriculture GDP at constant price
GCB	Government cash balance	YC	Total Consumption

Variable	Name	Variable	Name
GCE	Government Capital Expenditure	YCPUB	Public Consumption
GDDEBT	Domestic Debt	YCPVT	Private Consumption
GDL	Gross Domestic Loan	YF	GDP in Factor costs in Current Price
GDS	Gross Domestic Saving	YFR	GDP in Factor Costs at constant price
GFDEBT	Foreign Debt	YFSIM	Financial Intermediary service (imputed value of Banking Services) at current price
GFG	government foreign grants	YFSIMR	Financial Intermediary service (imputed value of Banking Services) at constant price
GFL	government foreign loan	YGCF	Gross Capital Formation
GNP	Gross National Product	YGFCF	Total Investment (Gross Fixed Capital Formation)
GNS	Gross National Saving	YI	Industrial GDP
GNTAX	government non tax revenue	YII	Investment on Industrial Sector
GRE	Government Recurrent expenditure	YIK	Capital Stock in Industry
GTAX	government tax revenue	YIPUB	Public Investment
GTE	Government total expenditure	YIPVT	Private Investment
GTRV	Government total revenue	YIR	Industrial GDP in constant price
MCG	Claims on Government	YM	Imports of goods and NFs
MCGE	Claims on Government Enterprises	YNFI	Net Factor Income
MCPS	Claims on Private Sector	YNIT	Net Indirect Tax at current price
MDC	Domestic Credit	YNITR	Net Indirect Tax at constant price
MM2	Broad Money Supply	YP	GDP at producer price
MNDA	Net Domestic Assets	YPR	Real GDP at producer price
MNFA	Net Foreign Asset	YS	Service GDP
MNML	Nonmonetary liabilities	YSI	Investment in Service Sector
PALR	Lending Rate Agriculture	YSK	Capital Stock in Service
PCPI	Consumer price index	YSR	Service GDP at constant price
PCPIF	Food price index	YX	Export of goods and NFs
PCPII	CPI of India		
PCPINF	non-food price index		
PEXR	Exchange rate of NRs. vs. US\$		
PFDR	Deposit Rate for 1 Years Fixed Deposit		
PILR	Lending Rate Industry		
PSR	Saving Interest Rate		

#### c) Functional Form of the Model

The subscript 't' of all the variables indicates annual time subscript. The  $\alpha$ ,  $\beta_{1...n}$  and  $\varepsilon_t$  are the intercept term, coefficients of the equation and residual term respectively.

#### A. Social Sector Block

 $log(sae)_{t} = \alpha + \beta_{1} log(yar)_{t} + \beta_{2} log(gcet)_{t} + \varepsilon_{t}$  $log(sie)_{t} = \alpha + \beta_{1} log(yir) + \beta_{2} log(gcee)_{t} + pilr + \varepsilon_{t}$   $log(spov)_{t} = \alpha + \beta_{1} log(yp / spop) + \beta_{2} log(brem)_{t-1} + \beta_{3} log(sae + sie + sse) + \varepsilon_{t}$   $log(sse)_{t} = \alpha + \beta_{1} log(ysr)_{t} + \beta_{2} log(gcee)_{t} + \beta_{3} log(spop)_{t} + \varepsilon_{t}$   $log(ste)_{t} = \alpha + \beta_{1} log(yfr)_{t} + \beta_{2} log(spop)_{t} + \varepsilon_{t}$  spovr = 100 \* spov / spop ste = sae + sie + sse

#### **B. Real Sector Block**

 $\log(yai)_{t} = \alpha + \beta_1 \log(yipvt)_{t} + \beta_2 \log(gcea)_{t} + \beta_3 \log(gcet)_{t-1} + \varepsilon_t$  $\log(yar)_t = \alpha + \beta_1 \log(yai)_t + \beta_2 slp_t + \varepsilon_t$  $\log(ya/sae)_t = \alpha + \beta_1 \log(gre)_t + \beta_2 MA(1) + \varepsilon_t$  $\log(ycpub)_t = \alpha + \beta_1 \log(gce)_t + \beta_2 \log(gtrv)_t + \varepsilon_t$  $\log(ycpvt)_t = \alpha + \beta_1 \log(yp - gtax)_t + \beta_2 \log(brem)_t + \beta_2 \log(gcet)_t + \varepsilon_t$  $\log(yfsim)_t = \alpha + \beta_1 \log(yfsim)_{t-1} + \varepsilon_t$  $\log(vii)_t = \alpha + \beta_1 \log(gcee)_t + \beta_2 \log(vipub)_t + \beta_3 MA(1) + \varepsilon_t$  $\log(vipub)_t = \alpha + \beta_1 \log(gfg)_t + \beta_2 \log(gfl)_t + \beta_3 \log(vipub)_{t-1} + \varepsilon_t$  $\log(vipvt)_{t} = \alpha + \beta_{1}(pilr)_{t} + \beta_{2}\log(gce + gcee)_{t} + \beta_{3}AR(1) + \varepsilon_{t}$  $\log(yir)_t = \alpha + \beta_1(sie)_t + \beta_2 \log(gcee)_t + \beta_3 \log(bgx)_t + \beta_4 \log(mcps)_t + \varepsilon_t$  $\log(yi/sie)_t = \alpha + \beta_1(gte)_t + \beta_2 AR(1) + \varepsilon_t$  $\log(ynitr)_t = \alpha + \beta_1 \log(gtax)_t + \beta_2 AR(1) + \varepsilon_t$  $\log(ysi)_{t} = \alpha + \beta_1 \log(mcps)_{t-1} + \beta_2 \log(gte)_t + \beta_3 MA(1) + \varepsilon_t$  $\log(ysr)_t = \alpha + \beta_1(ysi/py)_t + \beta_2(sse)_t + \beta_3(tourist)_t + \beta_4 \log(gcee)_{t-1} + \varepsilon_t$  $\log(ys/sse)_t = \alpha + \beta_1 \log(gte)_t + \beta_2 AR(1) + \varepsilon_t$ yfr = yar + yir + ysrypr = yfr - yfsimr + ynitrstock = -(yai + yii + ysi) + ygcfygfcf = yipub + yipvtyp = yc + ygfcf + stock + gbstbgds = yp - ycgnp = yp - bnfiyc = ycpub + ycpvtgni = (yf / spop) / pexryf = (yfr \* py)/100ygcf = yp \* yirate/100

#### C. Fiscal Sector Block

 $(gce)_t = \alpha + \beta_1 (gce)_{t-1} + \varepsilon_t$ 

 $(gfg)_{t} = \alpha + \beta_{1}(gfg)_{t-1} + \varepsilon_{t}$   $\log(gntax)_{t} = \alpha + \beta_{1}\log(yf)_{t} + \varepsilon_{t}$   $(gre)_{t} = \alpha + \beta_{1}(gre)_{t-1} + \beta_{2}gtrv + \varepsilon_{t}$   $\log(gtax)_{t} = \alpha + \beta_{1}\log(yf)_{t} + \beta_{2}AR(1) + \varepsilon_{t}$  gte = gre + gce gtrv = gtax + gntaxgbb = gte - gtrv - gfg

#### D. Monetary Sector Block

 $log(mcg)_{t} = \alpha + \beta_{1} log(gbb)_{t} + \beta_{2} log(mcg)_{t-1} + \varepsilon_{t}$   $log(mcge)_{t} = \alpha + \beta_{1} AR(1) + \varepsilon_{t}$   $log(mcps)_{t} = \alpha + \beta_{1} log(mcps)_{t-1} + \beta_{2} (palr + pilr)/2 + \varepsilon_{t}$   $log(mnml)_{t} = \alpha + \beta_{1} log(mnml)_{t-1} + \varepsilon_{t}$  mm2 = mnfa + mnda mnfa = mnfa(-1) + bop mnda = mdc - mnml mdc = mcg + mcge + mcps

#### E. Price Sector Block

 $\log(pcpi)_{t} = \alpha + \beta_{1} \log(pwpii)_{t} + \beta_{2} \log(mm2) + \beta_{3} \log(yar) + \varepsilon_{t}$   $(pilr)_{t} = \alpha + \beta_{1}(ptb91)_{t} + \beta_{2}\Delta\log(pcpi)_{t} + \beta_{3}(xilr) + \varepsilon_{t}$   $(ptb91)_{t} = \alpha + \beta_{1}\Delta\log(pcpi)_{t} + \beta_{2} \log(mnfa)_{t} + \beta_{3} \log(gbb)_{t-1} + \varepsilon_{t}$  $(py)_{t} = \alpha + \beta_{1}(pcpi)_{t} + \beta_{2}AR(1) + \varepsilon_{t}$ 

#### F. External Sector Block

- 1.  $(bfeo)_t = \alpha + \beta_1 (bfeo)_{t-1} + \varepsilon_t$
- 2.  $\log(bgm)_t = \alpha + \beta_1 \log(yp)_t + ar(1) + \varepsilon_t$
- 3.  $(bgx)_t = \alpha + \beta_1(xindy)_t + \beta_2(pexr)_t + ar(1) + \varepsilon_t$
- 4.  $(bnfi)_t = \alpha + \beta_1(xmenay)_t + \beta_2(xmaly)_t + \beta_3(pilr)_t + \varepsilon_t$
- 5.  $\log(bntr)_t = \alpha + \beta_1 \log(pexr)_t + \beta_2 \log(xmenay + xmaly)_t + \varepsilon_t$
- 6.  $(brem)_t = \alpha + \beta_1 (xmenay + xmaly)_t + \beta_2 (pilr)_t + \varepsilon_t$

7.  $\log(bsp)_t = \alpha + \beta_1 \log(yf)_t + \beta_2 (pexr)_t + \varepsilon_t$ 

- 8.  $\log(bsr)_t = \alpha + \beta_1 \log(bsr)_{t-1} + \beta_2 \log(tourist)_t + \varepsilon_t$
- 9. bop = bcab + bcat + bnfl + bfeo
- 10. bgtb = bgx bgm
- 11. bnsr = bsr bsp
- 12. bgstb = bgtb + bnsr

bcab = bgtb + bnsr + bnfi + bntr + brem

#### d) Human Assets Index (HAI)

Human Assets Index (HAI) covers the social aspect of the people. It is a composite index of four equally weighted indicators that have been divided into two groups:

- Health and Nutrition Sub-Index
  - > Prevalence of undernourishment in the population (percentage) (1/4)
  - > Under-five mortality (per 1,000 live births) (1/4)
- Education Sub-Index
  - Gross Secondary School Enrolment Ratio (percentage) (1/4)
  - Adult Literacy Rate (percentage) (1/4)

Though these indicators are mentioned in percentile or ratio, all are converted into index-value that ranges from '0' to '100'. Such index is calculated using following formulas:

Index

 $= \frac{(max - V)}{(max - min)} x100 \text{ for negative list (i. e. PUN & MRC) &}$ 

Index

$$= \frac{(V - min)}{(max - min)} x100 \text{ for positive list (i.e. GER & ALR)}$$

Where, '*max*' is the upper bound or maximum value reference and '*min*' is the lower bound or minimum value reference that is predetermined by the UN-DESA, and 'V' is the status value of the country.

#### 2.1 Prevalence of undernourishment in the population

- Conversion the absolute value into the index =  $\frac{(max-V)}{(max-min)}x100$
- http://data.un.org/Data.aspx?d=MDG&f=seriesRowID3a566

#### 2.2 Under-five mortality (per 1,000 live births)

- Conversion the absolute value into the index =  $\frac{(max-v)}{(max-min)} x100$
- http://data.un.org/Data.aspx?d=MDG&f=seriesRowID3a561

#### 2.3 Gross Secondary School Enrolment Ratio

- Conversion of the absolute value into the index =  $\frac{(v-min)}{(max-min)} x100$
- <u>http://data.un.org/Data.aspx?d= UNESCO&f=series3aGER\_23</u>

#### 2.4 Adult Literacy Rate (percentage)

• In most of the cases, the data is available only in 10 year's interval. So, annual status within the interval is estimated using exponential growth model.

```
Growth rate, r = \frac{ln(V_T/V_t)}{(T-t)}, where V = \frac{ALR \ value, t = base \ year, T = end \ year
Estimated value for (t+n) year, V_{t+n} = V_t * \frac{EXP(r)^n}{r}
```

- Convert the absolute value into the index =  $\frac{(V-min)}{(max-min)} x100$
- <u>http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx</u>

#### e) Economic Vulnerability Index (EVI)

Economic Vulnerability Index (EVI) is the composite index of two equally weighted Exposure Index and Shock Index. These two indices are also the composite value of other different sub-indices as follows.

- Exposure Index (1/2)
  - Size of Population (1/8)
  - Location (Remoteness) (1/8)
  - Economic Structure Sub-Index (1/8)
    - Merchandise Export Concentration (1/16)
    - Share of Agriculture, Forestry and Fisheries in GDP (1/16)
  - > Environment Sub-Index (Share of Population in Low-elevated Coastal Zones) (1/8)
  - Shock Index (1/2)
    - > Trade Shock Sub-Index (Instability of Exports of Goods and Services) (1/4)
    - Natural Shock Sub-Index (1/4)
      - Victims of Natural Disasters (1/8)
      - Instability of Agriculture Production(1/8)

Though these indicators have been mentioned in absolute value, percentile or ratio, all are converted into index-value as in HAI.

#### 3.1 Population

• Source at: <u>www.cbs.gov.np</u> and obtain the total population size from the census results (1991, 2001, 2011)

(Alternatively, the data can be accessed at: <u>http://esa.un.org/unpd/wpp/index.htm</u>, data file is "Total Population – Both Sex", which might be slightly different than the national data source).

 With the help of two 10-yearly census data, estimate the annual population within the interval period:

Growth rate,  $r = \frac{ln(V_T/V_t)}{(T-t)}$ , where V =Population,  $t = base \ year$ ,  $T = end \ year$ 

- Estimated value for (t + n) year,  $V_{t+n} = V_t *$
- $EXP(r)^n$
- Convert the absolute value into the index =  $\frac{\log(\max) \log(v)}{\log(\max) \log(\min)} * 100$

#### 3.2 Remoteness

 Remoteness measures trade-weighted minimum average distance for a country to reach 50 of the world markets. It's too technical. Further, it's relative index that depends not only on a country's performance, but also upon the situation of the reference group countries. So, the assessments made by UN-DESA in the year 2006, 2009 and 2012 have been referred inn calculating the remoteness value.

#### 3.3 Merchandise Export Concentration

- <u>http://unctadstat.unctad.org/TableViewer/tableView.aspx</u>, where export concentration index is available for the period since 1995.
- Calculate the 3-yrs moving average from the annual concentration index value.
- Convert the moving average index value into the index =  $\frac{(v min)}{(max min)} x 100$

#### 3.4 Share of Agriculture, Forestry and Fisheries in GDP

- <u>http://unstats.un.org/unsd/snaama</u>, 'Data Selection'→ 'Basic Data Selection', then select the country name, series "Value Added by Economic Activity, at current prices US Dollars", and years as required.
- Calculate the share of agriculture, forestry and fisheries to GDP in percentage and further calculate 3-yrs moving average of the share.
- Convert the moving average figure into the index =  $\frac{(V-min)}{(max-min)} x100$

#### 3.5 Share of Population in Low-elevated Coastal Zones

• Low elevated coastal zone is defined as an area contiguous to the coast below 10 meters of elevation. But, this index doesn't affect Nepal as it is a land-locked country.

#### 3.6 Instability of Exports of Goods and Services

 Instability of exports of goods and services measures the instability of export earnings, or the capacity of a country to import goods and services from current export earnings. It's too technical to find out the value. So, the assessments made by UN-DESA in the year 2006, 2009 and 2012 have been referred to calculate the value.

#### 3.7 Victims of Natural Disasters

- <u>http://www.emdat.be/</u>, "advanced search" select country name 'Nepal' under location, 'natural disaster' under group. Then, select 'Climatological', 'Geophysical', 'Hydrological', and 'Meteorological' under sub group and run the report.
- Total no. of death and affected people = No. Killed + Total Affected
- Victims of Natural Disasters = (Total no. of death and affected people / Population size) \* 100
- Further calculate 3-yrs moving average of the victims' percentage.
- Convert the moving average ratio into the index =  $\frac{\ln(v) \ln(min)}{\ln(\max) \ln(min)} \times 100$

#### 3.8 Instability of Agriculture Production

• Instability of Agriculture Production reflects the vulnerability of countries to natural shocks, in particular impacts of droughts and disturbances in rainfall patterns. It's too technical to find out the real situation. So, the assessments made by UN-DESA in the year 2006, 2009 and 2012 have been referred to calculate this value.

### Annex III

### Targeted Economic Growth Rate

C No.	Sector			Annual Gro	wth Rate (	at the Con	stant Price	of 2012/13	5)		Average
5.NO.	Sector	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Average
1	Agriculture and forestry	4.40%	4.80%	5.50%	5.60%	5.66%	5.71%	5.77%	5.50%	5.50%	5.38%
2	Fishing	7.00%	7.00%	8.00%	8.50%	9.00%	9.10%	9.20%	9.00%	9.00%	8.42%
	Agriculture	4.43%	4.83%	5.53%	5.64%	5.70%	5.76%	5.82%	5.55%	5.55%	5.42%
3	Mining and Quarrying	5.45%	5.50%	5.50%	7.50%	8.25%	9.08%	9.53%	9.53%	9.53%	7.75%
4	Manufacturing	4.30%	5.40%	6.50%	9.00%	9.90%	10.89%	11.43%	11.43%	11.43%	8.89%
5	Electricity, gas and water	7.70%	8.90%	8.90%	12.50%	13.75%	15.13%	15.88%	15.88%	15.88%	12.68%
6	Construction	4.90%	6.50%	7.80%	11.00%	12.10%	13.31%	13.98%	13.98%	13.98%	10.79%
	Industrial Sector	4.91%	6.22%	7.28%	10.19%	11.23%	12.37%	13.01%	13.04%	13.06%	10.10%
7	Wholesale and retail trade	5.00%	6.80%	7.80%	10.10%	12.12%	13.33%	13.33%	13.20%	12.00%	10.37%
8	Hotels and restaurants	7.50%	8.90%	11.50%	15.00%	18.00%	19.80%	19.80%	18.00%	17.82%	15.06%
9	Transport, storage and communications	7.90%	8.80%	10.20%	12.00%	14.40%	15.84%	15.84%	15.68%	13.00%	12.59%
10	Financial intermediation	7.00%	7.60%	8.20%	11.00%	13.20%	14.52%	14.52%	14.37%	10.30%	11.15%
11	Real estate, renting and business activities	5.00%	7.10%	7.90%	9.00%	9.90%	10.40%	10.40%	10.29%	10.19%	8.89%
12	Public Administration and defense	5.50%	6.30%	7.10%	8.50%	9.35%	9.82%	9.82%	9.72%	9.62%	8.40%
13	Education	8.00%	8.70%	9.80%	12.00%	13.20%	13.86%	13.86%	13.72%	13.58%	11.84%
14	Health and social work	7.50%	8.40%	9.20%	12.50%	13.75%	14.44%	14.44%	14.29%	14.15%	12.04%
15	Other community, social and personal service activities	8.10%	9.10%	10.50%	14.00%	15.40%	11.00%	11.00%	10.89%	10.78%	11.18%
	Service Sector	6.41%	7.76%	8.86%	11.05%	12.84%	13.51%	13.56%	13.40%	12.16%	11.03%
	Gross Value Added	5.50%	6.52%	7.50%	9.12%	10.30%	10.95%	11.20%	11.15%	10.54%	9.18%
	Financial intermediation indirectly measured FISIM	7.92%	7.90%	7.90%	7.90%	7.90%	7.90%	7.90%	7.90%	7.90%	7.90%
	GDP at basic prices	5.41%	6.47%	7.49%	9.17%	10.40%	11.07%	11.33%	11.27%	10.64%	9.23%
	Taxes less subsidies on products	6.98%	7.00%	7.60%	9.00%	9.50%	10.00%	10.00%	10.00%	10.00%	8.89%
	GDP at producers price	5.56%	6.52%	7.50%	9.16%	10.31%	10.97%	11.20%	11.15%	10.58%	9.20%

### Annex IV

### Table 4a: Estimated GDP (at Constant Price of 2012/13)

				<b>(</b> <sup></sup>			- 1			(Rs	. in billion)
S No	Sector	Base yr				Estima	ated Annua	I GDP			
0.110.	Oector	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
1	Agriculture and forestry	548.97	573.12	600.63	633.67	669.15	707.00	747.39	790.51	833.99	879.86
2	Fishing	6.62	7.08	7.58	8.18	8.88	9.68	10.56	11.53	12.57	13.70
	Agriculture	555.59	580.20	608.21	641.85	678.03	716.68	757.94	802.04	846.55	893.55
3	Mining and Quarrying	9.25	9.75	10.29	10.86	11.67	12.63	13.78	15.09	16.53	18.11
4	Manufacturing	98.71	102.95	108.51	115.57	125.97	138.44	153.51	171.07	190.63	212.43
5	Electricity, gas and water	20.29	21.85	23.79	25.91	29.15	33.16	38.17	44.24	51.26	59.40
6	Construction	110.46	115.87	123.40	133.02	147.66	165.52	187.56	213.77	243.64	277.69
	Industrial Sector	238.70	250.43	266.00	285.36	314.45	349.75	393.02	444.16	502.06	567.63
7	Wholesale and retail trade	230.58	242.11	258.58	278.75	306.90	344.10	389.97	441.96	500.29	560.33
8	Hotels and restaurants	29.14	31.33	34.11	38.04	43.74	51.62	61.84	74.08	87.42	102.99
9	Transport, storage and communications	147.15	158.77	172.74	190.36	213.21	243.91	282.54	327.30	378.62	427.84
10	Financial intermediation	67.21	71.91	77.38	83.72	92.93	105.20	120.47	137.97	157.80	174.05
11	Real estate, renting and business activities	135.53	142.31	152.41	164.45	179.25	197.00	217.47	240.08	264.79	291.77
12	Public Administration and defense	30.30	31.97	33.98	36.39	39.49	43.18	47.42	52.07	57.13	62.63
13	Education	86.20	93.09	101.19	111.11	124.44	140.86	160.39	182.62	207.68	235.89
14	Health and social work	22.02	23.67	25.66	28.02	31.53	35.86	41.04	46.96	53.68	61.27
15	Other community, social and personal service activities	56.76	61.36	66.94	73.97	84.33	97.31	108.02	119.90	132.95	147.29
	Service Sector	804.88	856.52	922.99	1,004.81	1,115.81	1,259.03	1,429.16	1,622.94	1,840.36	2,064.06
	Gross Value Added	1,599.17	1,687.14	1,797.20	1,932.02	2,108.28	2,325.46	2,580.12	2,869.14	3,188.97	3,525.24
	Financial intermediation indirectly measured FISIM	58.99	63.66	68.69	74.12	79.97	86.29	93.11	100.46	108.40	116.96
	GDP at basic prices	1,540.18	1,623.48	1,728.51	1,857.90	2,028.31	2,239.17	2,487.02	2,768.68	3,080.57	3,408.28
	Taxes less subsidies on products	161.01	172.24	184.30	198.31	216.16	236.69	260.36	286.40	315.03	346.54
	GDP at producers price	1,701.19	1,795.73	1,912.81	2,056.21	2,244.47	2,475.86	2,747.38	3,055.07	3,395.61	3,754.81

### Table 4b: Estimated GDP and GNI (at Current Price)

	(Rs. In billion										
0.11	0				Es	stimated Ani	าual GDP an	d GNI			
S.NO.	Sector	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
1	Agriculture and forestry	549.0	600.4	659.2	728.5	806.0	892.1	988.0	1,094.7	1,209.9	1,337.2
2	Fishing	6.6	8.1	10.0	12.4	15.5	19.4	24.3	30.4	38.1	47.7
	Agriculture	555.6	608.5	669.2	741.0	821.4	911.5	1,012.2	1,125.1	1,248.0	1,384.9
3	Mining and Quarrying	9.3	10.7	12.4	14.3	16.8	20.0	23.8	28.6	34.3	41.2
4	Manufacturing	98.7	110.7	125.5	143.8	168.5	199.2	237.6	284.7	341.2	409.0
5	Electricity, gas and water	20.3	23.6	27.7	32.6	39.5	48.5	60.3	75.3	94.2	117.8
6	Construction	110.5	127.7	149.8	178.0	217.7	269.0	335.8	421.8	529.7	665.3
	Industrial Sector	238.7	272.7	315.4	368.6	442.6	536.6	657.5	810.5	999.5	1,233.3
7	Wholesale and retail trade	230.6	255.9	288.8	329.0	382.8	453.6	543.3	650.7	778.4	921.3
8	Hotels and restaurants	29.1	34.2	40.6	49.4	62.0	79.8	104.3	136.3	175.5	225.6
9	Transport, storage and communications	147.1	179.3	220.2	274.0	346.5	447.5	585.3	765.5	999.8	1,275.6
10	Financial intermediation	67.2	75.4	85.0	96.4	112.2	133.1	159.8	191.8	230.0	265.9
11	Real estate, renting and business activities	135.5	157.1	185.8	221.3	266.3	323.2	393.9	480.1	584.5	711.1
12	Public Administration and defense	30.3	33.9	38.2	43.4	50.0	58.0	67.6	78.7	91.6	106.6
13	Education	86.2	104.4	127.3	156.8	197.0	250.2	319.5	408.1	520.6	663.3
14	Health and social work	22.0	25.3	29.3	34.1	41.0	49.8	60.8	74.3	90.7	110.6
15	Other community, social and personal service activities	56.8	62.3	69.1	77.6	89.9	105.4	118.9	134.1	151.1	170.0
	Service Sector	804.9	927.8	1,084.3	1,282.1	1,547.7	1,900.5	2,353.3	2,919.6	3,622.2	4,450.0
18	Gross Value Added	1,599.2	1,809.0	2,068.9	2,391.7	2,811.7	3,348.6	4,023.0	4,855.2	5,869.8	7,068.2
19	Financial intermediation indirectly measured FISIM	59.0	68.1	78.6	90.7	104.8	120.9	139.6	161.1	186.0	214.7
20	GDP at basic prices	1,540.2	1,740.9	1,990.3	2,300.9	2,707.0	3,227.7	3,883.5	4,694.1	5,683.8	6,853.6
21	Taxes less subsidies on products	161.0	184.3	210.9	242.8	283.1	331.7	390.3	459.3	540.5	636.1
22	GDP at producers price	1,701.2	1,925.1	2,201.2	2,543.7	2,990.1	3,559.3	4,273.8	5,153.4	6,224.3	7,489.6
23	Primary income, net	7.8	11.7	17.5	26.3	39.5	59.2	88.8	133.2	199.8	299.7
24	Gross national income (GNI)	1,709.0	1,936.8	2,218.8	2,570.0	3,029.5	3,618.6	4,362.6	5,286.6	6,424.1	7,789.3
25	Population Growth Rate	1.35%	1.35%	1.30%	1.30%	1.30%	1.25%	1.25%	1.25%	1.20%	1.20%
26	Population (in millions)	27.2	27.6	27.9	28.3	28.7	29.0	29.4	29.8	30.1	30.5
27	GNI Per Capita (Rs.)	62,796.6	70,220.3	79,410.8	90,801.1	105,662.9	124,647.7	148,421.5	177,637.8	213,300.3	255,563.1
28	Exchange Rate of Rs. with \$US	87.1	95.0	96.0	96.9	97.9	98.9	99.8	100.8	101.9	102.9
29	GNI Per Capita (US \$)	721.0	739.0	828.0	937.0	1.080.0	1.261.0	1.487.0	1.762.0	2.094.0	2.484.0

#### Annex V

											(Rs. In billion)
C No	Conton				Annu	al Total Inv	restment				Total
5.NO.	Sector	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Total
1	Agriculture and forestry	72.46	82.53	99.10	106.46	113.54	121.16	129.37	130.43	137.61	992.67
2	Fishing	1.39	1.49	1.82	2.09	2.40	2.64	2.91	3.11	3.39	21.24
	Agriculture	73.85	84.02	100.92	108.54	115.94	123.81	132.28	133.55	141.00	1,013.91
3	Mining and Quarrying	2.52	2.68	2.83	4.07	4.81	5.73	6.57	7.19	7.88	44.28
4	Manufacturing	21.22	27.80	35.27	52.00	62.35	75.38	87.77	97.80	108.99	568.58
5	Electricity, gas and water	34.37	42.78	46.59	71.26	88.18	110.33	133.37	154.56	179.10	860.53
6	Construction	10.82	15.06	19.25	29.27	35.73	44.06	52.42	59.75	68.10	334.47
	Industrial Sector	68.93	88.32	103.94	156.60	191.08	235.51	280.13	319.30	364.06	1,807.87
7	Wholesale and retail trade	32.28	46.10	56.47	78.83	104.15	128.45	145.57	163.33	168.10	923.29
8	Hotels and restaurants	15.30	19.52	27.46	39.94	55.12	71.54	85.71	93.34	109.04	516.97
9	Transport, storage and communications	101.13	121.55	153.29	198.74	267.10	336.12	389.37	446.53	428.22	2,442.06
10	Financial intermediation	25.87	30.06	34.90	50.65	67.47	84.01	96.21	109.08	89.39	587.64
11	Real estate, renting and business activities	37.27	55.57	66.22	81.40	97.60	112.63	124.34	135.89	148.37	859.29
12	Public Administration and defense	6.67	8.06	9.65	12.37	14.77	16.96	18.62	20.24	21.99	129.32
13	Education	24.13	28.35	34.71	46.66	57.49	68.33	77.80	87.70	98.74	523.92
14	Health and social work	14.70	17.70	21.01	31.18	38.58	46.08	52.73	59.74	67.60	349.32
15	Other community, social and personal service activities	27.59	33.50	42.17	62.13	77.92	64.23	71.29	78.34	86.00	543.17
	Service Sector	284.95	360.40	445.89	601.91	780.20	928.35	1,061.64	1,194.20	1,217.46	6,874.98
	Total Requirements	427.73	532.74	650.75	867.05	1,087.21	1,287.66	1,474.05	1,647.05	1,722.52	9,696.76

### Table 5a: Total Investment Requirement (at Constant Price of 2012/13)

											(Rs. In billion)
S No	Sector				Annu	al Total Inv	estment				Total
3.NO.	Sector	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	TOLAT
1	Agriculture and forestry	75.91	90.57	113.94	128.22	143.27	160.16	179.15	189.23	209.14	1,289.60
2	Fishing	1.60	1.96	2.76	3.63	4.79	6.07	7.69	9.44	11.82	49.76
	Agriculture	77.51	92.54	116.70	131.86	148.06	166.23	186.84	198.67	220.96	1,339.36
3	Mining and Quarrying	2.76	3.22	3.72	5.87	7.60	9.92	12.45	14.94	17.93	78.42
4	Manufacturing	22.82	32.15	43.87	69.58	89.72	116.66	146.08	175.08	209.83	905.80
5	Electricity, gas and water	37.08	49.81	58.53	96.60	128.99	174.15	227.15	284.03	355.15	1,411.48
6	Construction	11.93	18.29	25.76	43.15	58.06	78.89	103.44	129.91	163.16	632.59
	Industrial Sector	74.60	103.47	131.88	215.20	284.37	379.62	489.12	603.96	746.07	3,028.29
7	Wholesale and retail trade	34.12	51.48	66.65	98.33	137.29	178.94	214.32	254.12	276.40	1,311.65
8	Hotels and restaurants	16.69	23.23	35.67	56.59	85.21	120.66	157.71	187.40	238.85	922.01
9	Transport, storage and communications	114.19	154.95	220.63	322.96	490.07	696.29	910.68	1,179.16	1,276.75	5,365.68
10	Financial intermediation	27.12	33.03	40.19	61.15	85.38	111.43	133.77	158.97	136.56	787.60
11	Real estate, renting and business activities	41.15	67.74	89.12	120.95	160.11	203.98	248.61	299.99	361.63	1,593.28
12	Public Administration and defense	7.07	9.07	11.52	15.67	19.84	24.17	28.15	32.47	37.42	185.37
13	Education	27.07	35.67	48.99	73.88	102.10	136.13	173.87	219.84	277.64	1,095.19
14	Health and social work	15.70	20.18	25.58	40.53	53.55	68.30	83.46	100.96	121.98	530.25
15	Other community, social and personal service activities	28.03	34.59	44.24	66.23	84.39	70.68	79.72	89.01	99.29	596.17
	Service Sector	311.13	429.93	582.59	856.28	1,217.93	1,610.59	2,030.29	2,521.93	2,826.52	12,387.19
	Total Requirements	463.24	625.94	831.18	1,203.33	1,650.37	2,156.44	2,706.25	3,324.55	3,793.54	16,754.85

### Table 5b: Total Investment Requirement (at Current Price)

	(Rs. In billi										s. In billion)
C No.	Sector				Annual	Public Inve	estment				Total
5.NO.	Sector	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Total
1	Agriculture and forestry	21.01	26.41	33.70	37.26	40.88	44.83	47.87	48.26	50.91	351.13
2	Fishing	0.40	0.48	0.62	0.73	0.86	0.98	1.08	1.15	1.26	7.55
	Agriculture	21.42	26.89	34.31	37.99	41.74	45.81	48.94	49.41	52.17	358.68
3	Mining and Quarrying	0.09	0.10	0.10	0.14	0.16	0.19	0.22	0.24	0.27	1.52
4	Manufacturing	0.76	1.00	1.27	1.87	2.24	2.71	3.16	3.52	3.92	20.47
5	Electricity, gas and water	19.93	24.81	27.02	40.62	50.26	62.89	76.02	88.10	102.09	491.74
6	Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Industrial Sector	20.79	25.91	28.39	42.63	52.67	65.80	79.41	91.86	106.28	513.73
7	Wholesale and retail trade	0.42	0.60	0.73	1.02	1.35	1.67	1.89	2.12	2.19	12.00
8	Hotels and restaurants	1.50	1.95	3.30	4.79	6.61	8.58	10.28	11.20	13.09	61.31
9	Transport, storage and communications	28.32	38.29	49.05	65.58	90.82	117.64	136.28	165.22	158.44	849.64
10	Financial intermediation	3.88	4.21	4.89	7.09	9.45	11.76	13.47	15.27	12.51	82.53
11	Real estate, renting and business activities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	Public Administration and defense	6.67	8.06	9.65	12.37	14.77	16.96	18.62	20.24	21.99	129.32
13	Education	13.52	15.87	19.78	27.07	33.34	39.63	45.13	50.87	57.27	302.48
14	Health and social work	11.02	14.51	17.23	25.88	32.02	38.25	43.77	49.59	56.11	288.37
15	Other community, social and personal service activities	22.62	28.81	36.27	54.06	67.79	55.88	62.02	68.16	74.82	470.42
	Service Sector	87.94	112.30	140.90	197.86	256.15	290.37	331.46	382.66	396.41	2,196.07
	Total Public Investment	130.15	165.10	203.60	278.48	350.56	401.98	459.81	523.94	554.86	3,068.48

### Table 5c: Public Investment Requirement (at Constant Price of 2012/13)

	(Rs. In bill										s. In billion)
C No.	Sector				Annual E	Expected In	vestment				Total
5.NO.	Sector	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Total
1	Agriculture and forestry	51.45	56.12	65.41	69.20	72.67	76.33	81.50	82.17	86.69	641.54
2	Fishing	0.99	1.01	1.20	1.36	1.53	1.66	1.84	1.96	2.14	13.69
	Agriculture	52.44	57.13	66.61	70.55	74.20	78.00	83.34	84.13	88.83	655.23
3	Mining and Quarrying	2.43	2.59	2.73	3.93	4.65	5.54	6.34	6.95	7.61	42.77
4	Manufacturing	20.46	26.80	34.00	50.13	60.11	72.67	84.61	94.28	105.06	548.11
5	Electricity, gas and water	14.43	17.97	19.57	30.64	37.92	47.44	57.35	66.46	77.01	368.79
6	Construction	10.82	15.06	19.25	29.27	35.73	44.06	52.42	59.75	68.10	334.47
	Industrial Sector	48.15	62.41	75.55	113.97	138.41	169.71	200.72	227.44	257.79	1,294.15
7	Wholesale and retail trade	31.86	45.50	55.74	77.80	102.80	126.78	143.68	161.21	165.91	911.28
8	Hotels and restaurants	13.80	17.56	24.17	35.15	48.50	62.96	75.42	82.14	95.96	455.66
9	Transport, storage and communications	72.82	83.26	104.24	133.15	176.29	218.48	253.09	281.31	269.78	1,592.42
10	Financial intermediation	21.99	25.85	30.01	43.56	58.02	72.25	82.74	93.81	76.88	505.11
11	Real estate, renting and business activities	37.27	55.57	66.22	81.40	97.60	112.63	124.34	135.89	148.37	859.29
12	Public Administration and defense	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	Education	10.62	12.47	14.92	19.60	24.15	28.70	32.68	36.83	41.47	221.44
14	Health and social work	3.67	3.19	3.78	5.30	6.56	7.83	8.96	10.16	11.49	60.95
15	Other community, social and personal service activities	4.97	4.69	5.90	8.08	10.13	8.35	9.27	10.18	11.18	72.75
	Service Sector	197.00	248.10	304.99	404.05	524.05	637.98	730.18	811.53	821.04	4,678.91
	Total Expected Investment	297.58	367.64	447.15	588.57	736.66	885.68	1,014.24	1,123.11	1,167.66	6,628.29

### Table 5d: Expected Investment from Private Sector (at Constant Price of 2012/13)

		(Rs. In bill										
C No.	Sector				Annual	Public Inv	estment				Total	
5.NO.	Sector	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	TOLAI	
1	Agriculture and forestry	22.01	28.98	38.74	44.88	51.58	59.26	66.28	70.01	77.38	459.14	
2	Fishing	0.46	0.63	0.94	1.27	1.73	2.25	2.85	3.49	4.37	17.98	
	Agriculture	22.48	29.61	39.68	46.15	53.30	61.51	69.13	73.51	81.75	477.12	
3	Mining and Quarrying	0.10	0.12	0.13	0.20	0.26	0.34	0.42	0.51	0.61	2.68	
4	Manufacturing	0.82	1.16	1.58	2.50	3.23	4.20	5.26	6.30	7.55	32.61	
5	Electricity, gas and water	21.51	28.89	33.95	55.06	73.52	99.26	129.48	161.90	202.43	806.00	
6	Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Industrial Sector	22.43	30.16	35.65	57.76	77.01	103.80	135.16	168.71	210.60	841.29	
7	Wholesale and retail trade	0.44	0.67	0.87	1.28	1.78	2.33	2.79	3.30	3.59	17.05	
8	Hotels and restaurants	1.64	2.32	4.28	6.79	10.22	14.48	18.93	22.49	28.66	109.81	
9	Transport, storage and communications	31.97	48.81	70.60	106.58	166.62	243.70	318.74	436.29	472.40	1,895.71	
10	Financial intermediation	4.07	4.62	5.63	8.56	11.95	15.60	18.73	22.26	19.12	110.53	
11	Real estate, renting and business activities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12	Public Administration and defense	7.07	9.07	11.52	15.67	19.84	24.17	28.15	32.47	37.42	185.37	
13	Education	15.16	19.97	27.92	42.85	59.22	78.96	100.84	127.51	161.03	633.46	
14	Health and social work	11.77	16.55	20.98	33.64	44.45	56.69	69.27	83.80	101.25	438.39	
15	Other community, social and personal service activities	22.98	29.75	38.05	57.62	73.42	61.49	69.35	77.44	86.38	516.48	
	Service Sector	95.11	131.76	179.84	272.99	387.51	497.41	626.80	805.55	909.84	3,906.81	
	Total Public Investment	140.01	191.53	255.17	376.90	517.83	662.72	831.09	1,047.77	1,202.20	5,225.22	

### Table 5e: Public Investment Requirement (at Current Price)

	(Rs. In b									Rs. In billion)	
S No.	Santar				Annual	Expected I	nvestment				Total
3.NO.	Sector	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	TOLAI
1	Agriculture and forestry	53.90	61.59	75.20	83.35	91.69	100.90	112.86	119.21	131.76	830.47
2	Fishing	1.13	1.33	1.82	2.36	3.07	3.82	4.85	5.95	7.45	31.78
	Agriculture	55.03	62.93	77.02	85.71	94.76	104.73	117.71	125.16	139.20	862.24
3	Mining and Quarrying	2.66	3.10	3.60	5.67	7.35	9.58	12.03	14.43	17.32	75.74
4	Manufacturing	22.00	31.00	42.29	67.07	86.49	112.46	140.82	168.77	202.27	873.19
5	Electricity, gas and water	15.57	20.92	24.58	41.54	55.46	74.88	97.67	122.13	152.71	605.48
6	Construction	11.93	18.29	25.76	43.15	58.06	78.89	103.44	129.91	163.16	632.59
	Industrial Sector	52.17	73.31	96.23	157.43	207.36	275.82	353.96	435.25	535.47	2,187.01
7	Wholesale and retail trade	33.67	50.82	65.79	97.05	135.51	176.62	211.53	250.82	272.80	1,294.60
8	Hotels and restaurants	15.06	20.91	31.39	49.80	74.98	106.18	138.79	164.91	210.19	812.20
9	Transport, storage and communications	82.21	106.14	150.03	216.38	323.45	452.59	591.94	742.87	804.35	3,469.97
10	Financial intermediation	23.05	28.40	34.56	52.59	73.42	95.83	115.04	136.71	117.44	677.06
11	Real estate, renting and business activities	41.15	67.74	89.12	120.95	160.11	203.98	248.61	299.99	361.63	1,593.28
12	Public Administration and defense	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	Education	11.91	15.69	21.06	31.03	42.88	57.18	73.02	92.33	116.61	461.72
14	Health and social work	3.92	3.63	4.60	6.89	9.10	11.61	14.19	17.16	20.74	91.86
15	Other community, social and personal service activities	5.05	4.84	6.19	8.61	10.97	9.19	10.36	11.57	12.91	79.69
	Service Sector	216.03	298.18	402.75	583.30	830.42	1,113.18	1,403.49	1,716.37	1,916.67	8,480.38
	Total Expected Investment	323.23	434.41	576.00	826.43	1,132.54	1,493.72	1,875.16	2,276.78	2,591.34	11,529.63

### Table 5f: Expected Investment from Private Sector (at Current Price)

									(	
					Annual Buo	lget				Total
Sector	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	( 2013/14~ 2021/22)
Total Expenditure	483.49	539.31	612.05	677.98	764.56	871.23	990.35	1,122.45	1,264.95	7,326.36
Revenue and Grants	396.37	444.87	508.38	563.84	632.47	714.14	804.94	914.94	1,032.36	6,012.32
Renenue	331.37	379.09	438.36	481.66	535.95	602.96	679.62	769.83	869.14	5,087.99
Grants	65.00	65.78	70.01	82.18	96.52	111.18	125.32	145.11	163.22	924.33
Expenditure	409.90	458.33	520.84	575.03	643.90	728.68	829.68	948.32	1,081.33	6,196.02
Recurrent	330.36	355.63	387.05	416.83	454.42	499.76	552.05	610.93	673.28	4,280.30
Capital	79.55	102.71	133.79	158.20	189.49	228.93	277.63	337.39	408.05	1,915.73
Budget Surplus (-)/Deficit (+)	13.54	13.46	12.47	11.19	11.43	14.54	24.74	33.38	48.97	183.70
Financing	-13.54	-13.46	-12.47	-11.19	-11.43	-14.54	-24.74	-33.38	-48.97	-183.70
Net Internal Loan	22.93	25.97	29.50	36.52	40.64	45.61	47.56	43.53	44.89	337.15
Internal Loan	28.07	30.58	33.66	41.09	45.72	51.32	57.84	58.05	61.21	407.52
Less: Internal Loan Refund	5.14	4.62	4.16	4.57	5.08	5.70	10.28	14.51	16.32	70.38
Net Investment	6.72	10.19	14.54	15.98	25.40	34.21	38.56	43.53	40.80	229.94
Domestic Share Investments	6.72	8.46	10.80	15.98	25.40	34.21	38.56	43.53	40.80	224.47
Foreign Share Investments	0.00	1.73	3.74	0.00	0.00	0.00	0.00	0.00	0.00	5.47
Net External Borrowing	-25.57	-27.89	-30.54	-40.86	-55.88	-71.56	-85.15	-91.42	-102.01	-530.89
External Amortizations	15.28	18.27	22.23	23.06	25.40	28.51	32.13	36.28	40.80	241.96
Less: External Borrowing	40.85	46.16	52.77	63.92	81.28	100.07	117.29	127.70	142.82	772.85
Net Domestic Borrowing	-17.60	-21.73	-25.97	-22.83	-21.59	-22.81	-25.71	-29.02	-32.64	-219.91
Domestic Amortization	23.52	21.93	20.78	22.83	24.13	28.51	32.13	36.28	40.80	250.91
Less: Domestic Borrowing	41.13	43.66	46.74	45.66	45.72	51.32	57.84	65.30	73.45	470.82
Under(+)/Over(-)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## Table 5g: Projection of Government Budget (at Constant Price of 2012/13)

(Rs. In hillion)

 Table 5h: Projection of Government Budget (at Current Price)

(Rs. 1	In billion)
--------	-------------

Oristan					Annual Buc	lget				Total
Sector	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	(2013/14~ 2021/22)
Total Expenditure	517.24	617.23	749.38	888.05	1,071.36	1,306.06	1,588.27	1,925.80	2,321.78	10,985.18
Revenue and Grants	424.04	509.15	622.45	738.55	886.28	1,070.58	1,290.92	1,569.77	1,894.87	9,006.60
Renenue	354.50	433.87	536.72	630.91	751.02	903.90	1,089.94	1,320.80	1,595.29	7,616.95
Grants	69.54	75.28	85.72	107.64	135.26	166.68	200.98	248.97	299.58	1,389.66
Expenditure	438.52	524.56	637.71	753.20	902.30	1,092.37	1,330.61	1,627.03	1,984.75	9,291.04
Recurrent	353.42	407.01	473.89	545.99	636.77	749.19	885.35	1,048.17	1,235.79	6,335.58
Capital	85.10	117.55	163.82	207.21	265.53	343.18	445.25	578.86	748.96	2,955.46
Budget Surplus (-)/Deficit (+)	14.48	15.41	15.26	14.65	16.02	21.80	39.68	57.26	89.88	284.44
Financing	-14.48	-15.41	-15.26	-14.65	-16.02	-21.80	-39.68	-57.26	-89.88	-284.44
Net Internal Loan	24.53	29.72	36.12	47.84	56.95	68.38	76.27	74.69	82.39	496.88
Internal Loan	30.03	35.00	41.21	53.82	64.07	76.93	92.76	99.59	112.34	605.75
Less: Internal Loan Refund	5.50	5.28	5.09	5.98	7.12	8.55	16.49	24.90	29.96	108.86
Net Investment	7.19	11.67	17.81	20.93	35.59	51.29	61.84	74.69	74.90	355.90
Domestic Share Investments	7.19	9.69	13.23	20.93	35.59	51.29	61.84	74.69	74.90	349.34
Foreign Share Investments	0.00	1.98	4.58	0.00	0.00	0.00	0.00	0.00	0.00	6.56
Net External Borrowing	-27.36	-31.92	-37.39	-53.52	-78.31	-107.27	-136.56	-156.85	-187.24	-816.43
External Amortizations	16.34	20.91	27.22	30.20	35.59	42.74	51.53	62.24	74.90	361.68
Less: External Borrowing	43.70	52.83	64.61	83.72	113.90	150.01	188.10	219.10	262.14	1,178.11
Net Domestic Borrowing	-18.83	-24.87	-31.80	-29.90	-30.25	-34.19	-41.23	-49.79	-59.92	-320.79
Domestic Amortization	25.17	25.09	25.44	29.90	33.81	42.74	51.53	62.24	74.90	370.82
Less: Domestic Borrowing	44.00	49.97	57.23	59.80	64.07	76.93	92.76	112.04	134.81	691.61
Under(+)/Over(-)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Maps

Annex VI

Map 1: Development Regions of Nepal N FWDR MWDR WDR CDR EDR

 $\overline{\mathcal{T}}$ 

Map 2: Eco-Development Regions of Nepal



## LDC Graduation Preparation Technical Team

Pushpa Lal Shakya Joint Secretary, National Planning Commission Secretariat	<ul> <li>Coordinator</li> </ul>
Suman Aryal Deputy Director General, Central Bureau of Statistics	– Member
Yam Lal Bhoosal Program Director, National Planning Commission Secretariat	– Member
Mahesh Bhattarai Program Director, National Planning Commission Secretariat	– Member
Dr. Dilli Raj Aryal Under Secretary, Ministry of Finance	– Member
Dr. Ram Chandra Dhakal Executive Director, CEDA, Tribhuvan University	– Member
Dr. Tap Prasad Koirala Assistant Director, Nepal Rastra Bank	– Member
Dr. Lok Nath Bhusal Planning Officer, National Planning Commission Secretariat	– Member
Invitee in the Technical Team and Coordination in the Preparation Process: Gyanendra Shrestha, National Project Manager Strengthening National Planning and Monitoring Capacity of NPC supported	by UNDP