



# Sustainable Development Agenda FOR NEPAL

NEPAL



His Majesty's Government of Nepal  
National Planning Commission and  
Ministry of Population and Environment

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Kathmandu, 2003



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# Contents

Message	v
Foreword	vi
Acknowledgement	vii
Acronyms	viii
<b>1. Introduction and Overview</b>	<b>1</b>
<b>2. Defining Sustainable Development for Nepal</b>	<b>2</b>
<b>3. Opportunities and Constraints</b>	<b>3</b>
<b>4. Broad Goals</b>	<b>5</b>
<b>5. Current Status and Future Agenda</b>	<b>7</b>
5.1 Income	7
5.2 Health, Population and Settlements	12
5.3 Forests, Ecosystems and Biodiversity	16
5.4 Education	17
5.5 Institutions and Infrastructure	19
5.6 Peace and Security	21
<b>6. Summary of Policies</b>	<b>25</b>
6.1 Economic Growth and Poverty Reduction	25
6.2 Health, Population and Settlements	26
6.3 Forests, Ecosystems and Biodiversity	27
6.4 Education	27
6.5 Good Governance	28
6.6 Infrastructure	28
6.7 Peace and Security	28
<b>7. Implementation</b>	<b>30</b>
7.1 Monitoring and Evaluation	30
7.2 Institutional Arrangements	31
7.3 Expectations from the International Community	31



KATHMANDU  
NEPAL

*The Prime Minister*

# Message

Our twin development challenges today are to lift the majority of our men and women out from abject conditions of absolute poverty, and to ensure secure, peaceful lives of honor and dignity for all people of Nepal. A path that addresses these prime goals without adversely affecting the environment and prospects of future Nepali generations to improve the quality of their livelihoods remains our consensual approach to sustainable development.

This Sustainable Development Agenda for Nepal (SDAN) is an attempt to spell out what such a path may look like. It is a national document prepared by His Majesty's Government following a series of consultations with our national and international development partners. As a broad Agenda, SDAN is envisaged to be a process in motion that complements and guides all sectoral and periodic plans of the government. This Agenda also meets in advance part of the government's commitment to fulfill one of our Millennium Development Goals of having a national agenda and strategy on sustainable development in place by 2005. I thus expect it to remain relevant and to be implemented over the next fifteen years. The broad goals and thematic assessments, as well as the summary of policies contained herein are consistent with the projected trajectory in de-

velopment of different sectors that HMG has articulated in greater detail elsewhere. I note that SDAN brings together all facets of development relevant to our distinguishing circumstances. The mutually re-enforcing goals are aptly buttressed by a comprehensive definition of sustainable development in the context of Nepal, spanning issues from equitable growth to environmental conservation to security of Nepal's citizens.

This Agenda is somewhat ambitious by design. It is inspired by the assumption that Nepal has the ability and will to achieve much more than what can be inferred by simply projecting to the future trends of the immediate past. I state with confidence that there exists a resolve on the part of the HMG to steer the country towards peace and prosperity by translating appropriate policies into effective results. But this challenge is to be faced jointly with active engagement of all our citizens - women and men, civic associations that they are part of, the private sector, all our state entities, and the international community. I thus humbly urge all of you to join us and be part of this noble pursuit of making our great nation better.

**Surya Bahadur Thapa**  
Prime Minister and Chairperson,  
National Planning Commission



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*Dr. Shankar Prasad Sharma*  
*Vice-Chairman*

## *Foreword*

The National Planning Commission, together with the Ministry of Population and Environment is pleased to bring out His Majesty's Government's (HMG/N) Sustainable Development Agenda for Nepal (SDAN). Its preparation was triggered by our national preparations for the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa, but in many ways, it is also a continuation of Nepal's national and global commitments to the objectives of the landmark, United Nations Conference on Environment and Development, held in Rio in 1992. It is a reaffirmation of His Majesty's Government's pledge to implement Agenda 21, a blueprint for sustainable development in the 21<sup>st</sup> century, which was reinforced during the WSSD as well.

SDAN was prepared in a consultative manner with the participation of a wide range of stakeholders. As a guiding document, it is fairly simple, but it is also robust and ambitious in its goals, re-enforcing attainable national aspirations in a coherent framework of priorities that principally set out to secure higher incomes, create good institutions, establish peace, nurture the nation's health and education, and of course preserve its environmental integrity. In all these respects, SDAN aims to guide national level development plans and policies up to 2017, and is consistent with the government's more detailed plans of action such as the Poverty Reduction Strategy Paper and the Tenth Plan, as well as long-term development strategies at the sectoral level. It is also compatible with the objectives of attaining the Millennium Development Goals.

This document describes the pathways to achieving the goals and mentions how it remains relevant over a fifteen-year time, during which new knowledge, needs and information may arise. However, it is not a blueprint of technical details or specific development strategies. The original purpose and scope of the exercise was to produce a crisp and succinct "vision document" that lays in clear, understandable terms what the country's status and priorities are in the field of sustainable development, and where it could head to improve them. But it would refrain from prescriptive details, which fall under the purview of the government's different plans produced at various time intervals by respective entities of the state with specific sectoral mandates.

HMG has committed to translating the ethos and the letters contained herein by not only mainstreaming planning, monitoring and evaluation process but internalizing sustainable development approach in all plans and programmes funded through its resources. It also encourages a similar approach by the private sector and civil society at the central and increasingly the local level. I am confident that this document that has gone through several tiers and fora of civic and official scrutiny reflects adequate national consensus to inspire confidence, and generate ownership, both in its sweep of substantive coverage, and its agenda of reform and transformation to ensure environmental, social and economic sustainability in the nation.

**Dr. Shankar Prasad Sharma**  
Vice Chairman  
National Planning Commission

# Acknowledgement

The Sustainable Development Agenda for Nepal (SDAN) is prepared by HMG's National Planning Commission (NPC) in close collaboration with the Ministry of Population and Environment (MOPE). HMG is grateful to the United Nations Development Program (UNDP) and the World Wildlife Fund (WWF) for supporting this initiative. SDAN was launched in parallel with the national strategies for sustainable development dialogue process, which was assisted by the Organization for Economic Cooperation and Development (OECD) and the World Conservation Union (IUCN). HMG is grateful to them, as well as for the support received from UNDP's Capacity 21 Program, the Earth Council, and the British Embassy.

For its substantive work on this Agenda, HMG is very grateful to the task force on SDAN, led by Minendra Prasad Rijal. The task force consisted of Harka Gurung, former Vice Chairman of the NPC as Advisor, as well as members Puskar Bajracharya, Govinda Koirala, Bikash Pandey, Bhojraj Pokharel, Pitamber Sharma, Uday Raj Sharma, and Ava Darshan Shrestha. Drawing on the inputs of the task force, Arnico Panday and Swarnim Waglé contributed in drafting and synthesizing this document.

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Khadka, and Prithibi Raj Ligal, former Vice Chairmen of NPC; Jagadish Chandra Pokharel and Minendra Prasad Rijal, former Members of the NPC; Hari Shankar Tripathi and Prakash Sharan Mahat, former Members of the NPC and Chairmen of the Steering Committee at different periods; Janak Raj Joshi, Joint Secretary of MoPE; Gyan Prasad Sharma, Under Secretary and National Programme Director for Sustainable Community Development Program (SCDP); Chandra Prasad Gurung, Country Representative of the World Wildlife Fund; Bhesh Raj Dhamala, former Assistant Resident Representative, and Kristiina Mikkola, Environmental Governance Advisor, of UNDP; Champak Pokhrel, Team Leader, and his colleagues for the preparation of the Tenth Plan in NPC. HMG also appreciates the contributions of Shankar Sharma, Vice Chairman, Yuba Raj Khatiwada, Member, and Bhoj Raj Ghimire, Member Secretary, of the NPC for bringing SDAN into its current form.

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# *Acronyms*

APP	Agricultural Perspective Plan
BOT	Built Operate Transfer
FM	Frequency Modulator
GDP	Gross Domestic Product
GHG	Green House Gas
GLOF	Glacier Lake Outburst Floods
HIV/AIDS	Human Immune Virus/Acquired Immune Deficiency Syndrome
HMG	His Majesty's Government of Nepal
ICT	Information and Communication Technology
ILO	International Labour Organisation
IUCN	The World Conservation Union
LDC	Least Developed Countries
MDG	Millennium Development Goal
MOPE	Ministry of Population and Environment
NCSD	National Commission on Sustainable Development
NGO	Non-government Organisation
NPC	National Planning Commission
NTFP	Non-Timber Forest Products
OECD	Organisation for Economic Cooperation and Development
PAF	Poverty Alleviation Fund
RNAC	Royal Nepal Airlines Corporation
SAARC	South Asian Association for Regional Cooperation
SAPTA	SAARC Preferential Trading Arrangement
SCDP	Sustainable Community Development Programme
SDAN	Sustainable Development Agenda for Nepal
SLC	School Leaving Certificate
TU	Tribhuvan University
UNDP	United Nations Development Programme
UN	United Nations
VAT	Value Added Tax
VDC	Village Development Committee
WSSD	World Summit on Sustainable Development
WTO	World Trade Organisation
WWF	World Wildlife Fund



# 1

## *Introduction and Overview*

Nepal's Sustainable Development Agenda aims to guide and influence national-level planning and policies up to 2017. The agenda presented draws upon and is in conformity with the longer term goals envisaged in the Ninth Plan (1997-2002), the Tenth Plan (2002-2007), the Poverty Reduction Strategy Paper, the Millennium Development Goals, and commitments made by the country in various international forums. Accepting and building upon Nepal's status as a largely mountainous country beset by poverty but holding tremendous future potentials, this document goes beyond setting goals that appear within reach by simply projecting forward the trends of the recent past. It states broad goals that describe where HMG hopes to take Nepal by 2017. Reaching these goals is challenging but plausible.

This document begins by describing the pathways forward to achieving the goals, detailed objectives, followed by necessary government policies. Due to cross-cutting linkages, the discussion is grouped into broad topic themes (income; health; education; institutions and infrastructure; forest, ecosystems and biodiversity; and security). Many of these objectives are to be fulfilled through policies in multiple sectors, while policies in individual sectors will contribute to achieving multiple objectives. Finally, the document describes how it can remain relevant over a fifteen-year time scale during which new knowledge, needs, and information will arise.

# 2

## *Defining Sustainable Development for Nepal*

The over-arching goal of sustainable development in Nepal is to expedite a process that reduces poverty and provides to its citizens and successive generations not just the basic means of livelihood, but also the broadest of opportunities in the social, economic, political, cultural, and ecological aspects of their lives.

This begins with the pursuit of increased per capita income afforded by a stable population size that generates a viable and environmentally sound domestic resource base to create and nurture institutions of the state, markets, and civil society, whose services can be accessed equitably by all Nepalis. Basic development processes are to be overseen by accountable units of government with representation of women and men of all ethnicity and socio-economic status, whose management of resources, including the environment, is to be governed by an imperative that the ability of future Nepali generations to sustain or improve upon their quality of life and livelihoods is kept intact.

A corollary inherent in viewing sustainable development in Nepal in these broad terms is a national resolve to pursue happy, healthy, and secure lives as citizens who lead a life of honor and dignity in a tolerant, just and democratic nation.

# 3

## *Opportunities and Constraints*

A fifteen-year sustainable development agenda of Nepal must draw upon the country's current and potential strengths as well as take into account its vulnerabilities. Nepal's strengths include its attractive marketable landscape and its unique biodiversity, its large hydropower potential, its fertile Terai lands, good agro climates in the hills, large market prospect in neighboring countries as well as its diverse people and their cultural heritage. Nepal is also already working to build a fifth strength: an educated, skilled workforce. Nepal's development path will be constrained by weaknesses including its landlockedness, its rugged and isolating topography, weak technical know-how and limited financial resource base. In addition, Nepal will continue to be vulnerable to losses and damage from climate change, natural disaster and environmental degradation.

To earn the income necessary for sustainable national development, Nepal must provide to the world market products and services for which it has a comparative advantage. It has a biologically and culturally rich landscape whose marketing for tourism can be greatly increased, that can support rural livelihoods and provide a large variety of forest products, and that can also provide attractive settings for international educational and health care institutions. It also has the potential to produce premium and high value agricultural products as well as medicines from indigenous herbs and genetic resources. It has the potential to meet its entire energy needs through clean hydropower; this will especially contribute to the upliftment of women from drudgery. By attracting foreign investment, opportunity also exists for large export to neighboring countries. The country's

cultural richness is also a source of indigenous strength to the nation offering diversity of ideas, ways of thinking, and practices. By adequately targeting investment in education, the country has the potential to build additional strength of a skilled workforce, drawn from today's young demographic composition (nearly 40% of Nepal's population is within the age range 0-14).

Planning for sustainable development for Nepal also has to take into account the areas where Nepal has disadvantages. For example, without a sea port, Nepal will unlikely be able to compete on the world market with shipping-dependent heavy industry. Nepal's economy is heavily influenced by the economy of two large neighboring countries. The mountain landscapes that can be marketed to tourism also make infrastructure expensive, and in addition, increase travel distance and cost. The diversity of ecosystems and micro-habitats inherent in a mountainous landscape also makes resource management more challenging: rarely can a blanket national policy bring in desired effects nationwide.

Today, a nascent democracy in Nepal, which has had to mediate competing interests and legacies long rooted in a patriarchal, multi-lingual, and multi-ethnic setting, finds itself faced with difficult challenges, including random acts of violence and terror. Nepal's future growth hinges upon the challenging task of bringing every political and social force into the national mainstream adequately with meaningful political participation through decentralization.

Nepal is also vulnerable to natural influences. Its agricultural system is heavily dependent upon the timing and quantity of monsoon rains. During the dry season, drinking water, irrigation, and hydropower depend upon melt-water from glaciers. Climate change may affect the monsoon cycle, melt Himalayan glaciers, and threaten the survival of Nepal's biodiversity. Moreover, land slides, especially due to weak geological structure of Siwaliks and floods downstream have resulted in loss of fertile soil from Terai. Regarding air pollution, Nepal is currently vulnerable not just to domestic emissions (including indoor air pollution from biofuel combustion) but also to growing trans-boundary air pollution from up-wind urban and industrial areas.

# 4

## *Broad Goals*

This section lists a set of the broad goals that Nepal aspires to achieve by pursuing sustainable development over the time frame of this agenda. The pathways to achieving these goals are described in the sections that follow.

Successful implementation of the Sustainable Development Agenda of Nepal is defined to mean that:

- Every citizen is able to lead a secure life freely and with dignity.
- Every citizen and household has an income that not just covers expenses needed for reasonable healthy living, but also allows the accumulation of savings and the pursuit of knowledge and leisurely activities.
- Every girl and boy child attends school, every adult is literate.
- Vocational training is accessible to anyone.
- Every citizen is able to pursue higher education based on merit, irrespective of financial circumstances and social standing.
- No home in the country is more than a few hours of travel away from basic medical facilities.
- Every citizen has easy access to adequate amounts of clean water, nutritious food, and clean air.
- Most of the nation's energy is generated from domestic renewable sources, including hydro, solar, wind, as well as sustainably harvested and cleanly burned bio-fuel. The transport sector is increasingly powered by domestic renewable energy sources, with continuing efforts to free it from fossil-fuel dependence.
- Nepal's hydropower potential is developed not just for domestic consumption but also to provide a steady source of export income.
- Land use is planned and managed at the local and na-

tional level such that resource bases and ecosystems are improved, with complementarity between high- and low-lands, that forest biomass grows, that agricultural and forest lands are protected from urban sprawl, and that biodiversity is conserved at the landscape level by recognizing threats from habitat fragmentation and loss of forest cover.

- A system of protected areas (including national parks and conservation areas) is maintained and further developed to safeguard the nation's rich biodiversity. Local communities near protected areas are involved in both the management and economic benefit sharing of the area.
- Every citizen has adequate availability of forest products to meet his or her basic need, and also has the opportunity to enjoy aesthetic and spiritual experiences in nature.
- The micro-climates of hills and mountains are used to produce high-value agricultural products and sustainable production of non-timber forest products for domestic consumption and export.
- Scientific research and domestic industry ensures that Nepal gets adequate benefit from the protection of the genetic diversity of its biological resources.
- Domestic scientific expertise on global and regional environmental threats, including

climate change, is developed to closely inform Nepal's foreign and domestic policy on those as well as to help adequately prepare for adverse consequences.

- Every Village Development Committee (VDC) is linked to the rest of the country by at least one modern form of transportation and communication.
- Viable domestic industries meet at low cost the demand for products of daily household use as well as produce high-value, low-weight products for export.
- Nepal is better integrated internationally and becomes an attractive place for foreign investment. Its natural and cultural heritage is protected and marketed to visitors to generate maximum revenue.
- All citizens, from every culture, ethnicity and religion have swift access to all forms of state services provided by each branch of the state - the executive, the legislature, the judiciary, and all their sub-entities. Institutions of the state represent women and men of all ethnicity and social groups.
- The national development budget is financed largely through domestic resources.
- Foreign aid is limited to specific sectors only, then gradually phased out, first from areas where Nepal can help itself.

Those goals are to shape the direction of sectoral objectives and policies.

# 5

## *Current Status and Future Agenda*

Finding ways to achieve broad goals requires an understanding of the current situations and reality, and formulation of clear objectives. This section discusses status and objectives under following broad topics:

- i) Income
- ii) Health, Population and Settlements
- iii) Forests, Ecosystems and Biodiversity
- iv) Education
- v) Institutions and Infrastructure
- vi) Peace and Security.

These themes, rather than traditional sectors, are chosen to organize the discussion because they allow clearer linkages to the broad goals and presentation of crosscutting policies for sustainable development.

### *5.1 Income*

This theme embraces sectors that have a direct bearing on generating sustainable incomes for poverty reduction around which people's livelihood and the nation's resource viability and development activities will be anchored. The included sectors are: agriculture and forestry, industry and services, hydropower and energy, remittance, trade and economic integration, and landscape marketing and tourism.

#### **5.1.1 Agriculture and Forestry**

Although its share of the national product is around 40%, an overwhelming majority of Nepalis and over two thirds of economically active population, is dependent on agriculture. In the last 40 years, however, agricultural productivity in Nepal in major grains has gone from being the highest in South Asia to being the lowest. The current rate is less than half its potential. Rural farmlands are usually fragmented and labor productivity is low. Only around 25% of all cultivated land is irrigated year around. Added to this the

unpredictability of the monsoons, annual variation in production is wide. Around 50% of Nepal's 75 districts record food grain deficit. The 20-year Agricultural Perspective Plan (APP) launched in 1997 seeks to expand from subsistence farming into value-adding commercial ventures with a focus on infrastructure, fertilizers, research and extension services, and irrigation. However, progress on the APP to date has been less than satisfactory.

The most important objectives in the agricultural sector are to, i) enhance food security, ii) spur annual growth of agricultural GDP to at least 5% to alleviate rural poverty at a faster rate, and iii) increase rural employment. Attempts to increase production will have to go hand in hand with efforts to commercialize agriculture, radically diversify the production and processing of edibles, and increase the marketable value of those products.

The Agricultural Perspective Plan offers a bedrock to build upon the successes and improve implementation. Ensuring food security in deficit districts will require better and affordable transport links from regions that produce or store grain. Primary focus will, however, remain on increasing total production and its value. Thus, increased irrigation coverage that is cost-effective is a must. Nepal has performed much better in constructing and sustaining small-scale irrigation schemes that are managed by farmers in a participatory manner. These grassroots successes will be replicated and widened. Similarly, Terai has a large potential for ground water irrigation at low cost. This potential needs to be utilized with priority.

Long-term, research expenditures into horticulture and high value crops is necessary for the idea of geographical specialization of mass-produced crops to materialize. Pockets of specialized production will be connected by requisite infrastructure to convenient locations for processing and export. Emphasis will be on international marketing. In the fertile Terai lands, emphasis will remain on grain

production to ensure that Nepal can remain as independent of imports as possible to meet its domestic nutritional needs. In the more immediate run, the fertilizer policy will be directed at ensuring a consistent supply of reliable, affordable, and high quality inputs to small farmers. Trained female personnel will increasingly staff extension services. To reflect local needs, devolution of agricultural extension services will be assigned to local bodies, with technical backup from national resource farms and stations. These resource stations will ensure quality materials for local seeds, saplings, and breed multipliers.

Forest resources also play a major role in rural people's livelihoods, often serving as a major source of fuel, food, and fodder. HMG's Master Plan for the Forestry Sector (1989-2010) provides a long-term policy and planning framework, identifying major programs aimed at generating revenue to both the government and local communities. These specific programs are in community and private forestry, leasehold forestry, development of wood-based industries, aromatic plants and medicinal plants, soil conservation and watershed management, and conservation of ecosystems and genetic resources. Implementation will be focused on these programmes.

### 5.1.2 Industry and Services

Industry and services together (non-agricultural sector) account for nearly 60% of the gross domestic product. Prior to 1990, Nepal had created a largely state-owned network of production that was heavily protected from foreign competition. Attempts to liberalize in the early 1990s diversified the non-agriculture sector, particularly in services, propelling national growth rates in the sector to as high as 9% in 1991 and 1992. Construction, finance and domestic airlines have seen increased levels of activity.

Political instability and policy inconsistency following the first wave of economic reforms, effects of a porous border with India, high cost of capital borrowing, lack of infrastruc-



ture especially power, and a weak civil service delivery have all inhibited a fuller growth potential. In fact, the situation at present, complicated by global economic slowdown and domestic instability and uncertainty, is dire with GDP growth rate having plummeted to 0.6% in 2001/02.

The pattern of industrial growth to be promoted will be consistent with HMG policies on clean energy and environmental safeguards. HMG's long-term objectives in this sector are to orient industries towards lighter areas in which Nepal may have a long-term edge and where transport cost matters less. Attention will also be paid to the production of trademark goods that are promoted by virtue of their origin in Nepal.

In services, HMG will focus upon particular areas that can generate sustainable streams of income while overcoming the hurdles of high transportation cost. Such sectors could be financial services, software, knowledge based industries, and biotechnology, with the first three requiring almost no physical transport of goods.

Industries and services will also need to absorb a greater share of the labor force and lighten the burden on the less productive agriculture sector. Need for better technical know-how and adequate financing also invites a special role for foreign direct investment over the next 15 years.

HMG will urgently harmonize all fragmented policies having an impact on this sector – from export promotion to revenue policies. Commitments to further liberalization will have to be supported by greater supervisory and regulatory roles on the part of HMG together with its obligation to provide public goods in the form of supporting infrastructure to designated industries.

### 5.1.3 Remittance

Formal remittance from Nepali workers abroad is about 240 million dollars a year, which is

about 4.4% of GDP, and the recent growth rate is in double digits. Money flowing in through informal channels is much higher. Remittance has thus become a significant source of income that has penetration and coverage across the country. The tradition of remittance supporting an unproductive agrarian economy is long, going back over 150 years to the beginnings of Gurkha recruitment. The purpose and pattern of today's youth exodus, however, is different. There are 200,000 officially recorded Nepali workers in the Gulf and East Asia; many times more work in India, but are unrecorded. Poverty, unemployment, and fears of terrorism have fuelled the outflow in recent years. The exodus of rural citizens sheds some pressure off agricultural land but also removes a large chunk of the agricultural labor force. Although remittance as a source of income has recently grown, the sustainability of remittance as a source of income is unpredictable, and the kind of jobs that Nepalis are employed at are mostly unskilled, low paying, and hazardous and have a direct bearing on the long-term sustainable development goals that aspire to assure a life of dignity and honor. Also, there has been a shortage of attractive investment opportunities within Nepal, leading a large fraction of remittance incomes to be inefficiently invested in real estate speculations.

Recognizing the immense growth of remittance in the economy, HMG will seek to channel remittance into productive investment through the nations' formal financial institutions. Monetary instruments such as selling government bonds to finance infrastructure such as roads and hydropower projects will be introduced on a wider scale with the goal of using foreign earned income to enhance domestic productive capacity. Upon accession to the World Trade Organization (WTO), Nepal's multi-lateral negotiations will seek to secure reciprocity in the form of increased access to Nepali workers (mode four of service supply in the General Agreement on Trade in Services) for any binding commitments it may undertake in services, intellec-

tual property or any of the emerging issues (of investment, competition policy, and government procurement).

Three basic policies will govern HMG actions in this arena: i) through economic diplomacy, new and better markets for Nepali labor will be sought whose outflow will be orderly and better managed, ii) what citizens earn abroad will be encouraged to get channeled into the country through proper and formal banking channels, so that part of that inflow can be used for investments that enhance long-term production capacities, and iii) skills and experiences gained by workers overseas will be channeled into the economy with appropriate policies.

#### 5.1.4 Trade and Economic Integration

Completely isolated and least equipped with infrastructure until the country opened to external contact in 1950, Nepal has made substantial gains since. But, as its population has also almost quadrupled during the period, many of the material gains have been dissipated. Nepal today has one of the most liberal trading regimes in the region, and the extent of integration into the global economy is steadily increasing, with the export and import of goods and services constituting about 40% of GDP. However, in addition to the curable constraints such as lack of incentives, markets, and finance, the country faces a more fundamental handicap. While Nepal's neighbors present potentially lucrative markets to Nepali agricultural and other specialized products, with no direct access to navigable rivers or sea, Nepal's ability to trade globally in manufactured goods and bulky, unprocessed product is restricted.

HMG will seek to secure lucrative markets for Nepali products in the region as well as around the globe. But in the climate of ever-increasing competition, Nepali products will have to be increasingly differentiated. They will also have to come from industries that can be sustained and nurtured on domestic strengths. One neglected aspect, for example,

is the export of premium brand, value-added agricultural products. The traditional sectors of strength remain energy and tourism. HMG will learn from lessons of the past where Nepal's primary earners of foreign exchange were fickle and unsustainable.

Nepal will accede to the World Trade Organization. By conforming to the rules and obligations under a multi-lateral trading framework, Nepal hopes to take advantage of global markets as well as offer a predictable policy regime of standardized regulations to attract foreign direct investment. HMG also seeks to be an active player in regional free trade blocs such as SAPTA. However, economic integration requires a high level of institutional preparedness at home. HMG will thus pursue a carefully managed process of opening up, with gradual liberalization. Increasingly, state control of means of production and exchange will also be liberalized.

#### 5.1.5 Landscape, Marketing and Tourism

Although tourist arrivals have recently declined due to domestic and international violence, the attractiveness of Nepal's landscape and heritage to foreign visitors remain unchanged. The mountains and valleys that provide spectacular vistas can be maintained as Nepal's permanent resource. In addition, Nepal's rich cultural heritage as well as Nepali people's friendly reputation provide further attractions to foreign visitors, as does the rich biological heritage of national parks and protected areas. To date, Nepal has only tapped a small fraction of the potential income and benefit of marketing its landscape: First, average visitors do not stay long enough, and do not spend enough. Second, tourism income is spread unevenly. Third, the last two decades have seen insufficient marketing and promotion of alternative tourist destinations and attractions around the country. Fourth, Nepal has been losing potential visitors to competing countries, because of inadequate marketing and inadequate as well as overpriced flight connections.

Tourism is an easy source of income for Nepal, requiring relatively less investment, and providing many jobs; at times it can even take advantage of the lack of infrastructure in remote areas. However, reliance on tourism income is risky and vulnerable to factors beyond Nepal's control: economic condition in visitors' countries, domestic and international violence and negative media reports.

More has to be done to both promote domestic tourism and to attract foreign visitors who stay longer and contribute more. There is both the opportunity and the need to use Nepal's landscape, and the quality of life (including recreation) that it allows, to attract highly trained professionals to live in Nepal (and institutions that support these) who not only benefit Nepal by providing jobs and services, but also attract visits by thousands of their own clients. In particular, Nepal would be well served by attracting world-class educational and health care institutions, which can then use the Himalayan locations to attract top-paying students and patients. Nepal would also be well served by attracting wealthy retirees who are visited frequently by friends and family, as well as software developers, whose high-value export products are weightless.

#### 5.1.6 Energy and Hydropower

Today biofuels provide 87% of the energy consumed in Nepal, fossil fuels provide 12%, and electricity around 1%. In rural areas, particularly in the hills, it is likely that efforts of management by communities can regenerate and sustain the forest biomass. Rural livelihoods in Nepal today are also constrained by the limited availability of energy, and by the hard labor costs of obtaining biofuel energy.

In urban areas, imported fossil fuels account for 90% of the total energy use, including for cooking, transport and industry. In sub-urban and newly urbanizing areas, biofuels for cooking are giving way to kerosene and other imported fossil fuels. Substitution in cooking fuels and expansion of the road network

makes imported fossil fuels the fastest growing energy source in the country. Except for solar water heating in urban areas and some biogas production in rural areas, the use of other renewable energy sources is very small. In recent years there has been growth in the use of photovoltaic systems in rural communities. However, electricity is available to just 40% of the country's population, mostly urban. Only 5% of the population in rural areas has access to electricity. Yet the energy potentially available from hydropower in Nepal is among the highest in the world. Only 1% of the economically accessible hydropower is tapped. This provides not just a potential for meeting a large fraction of domestic energy needs with a clean source, but, as Nepal is bordered by a heavily populated energy starved region to its south, hydropower also represents a large potential source of export income. Prior to 1992, hydropower in Nepal was developed by HMG with donor assistance. The past decade has seen the growth of private investment and Nepali companies, as well as a drop in construction cost per electricity unit.

In the next 15 years, Nepal is to make strong strides not only towards meeting its own energy needs with domestic renewable sources, but also to produce the energy cheaply enough to make domestic industries competitive, and to create conditions whereby surplus hydroelectricity can be exported. Conditions will also be created to allow the construction of export-oriented hydropower projects, which can earn Nepal an income besides other benefits, including flood control, irrigation and dry-season water source. Especially with large projects, environmental equity and justice issues will have to be properly addressed, such that communities living near power plants are adequately compensated for their losses and receive a fair share of the benefits of the project.

Hydropower investments are to be increasingly financed in Nepali rupees, while design and construction of increasingly larger

projects is to be carried out by Nepali expertise. In the initial stage, there is to be complementarity (in terms of who builds run-of-the river and who builds multi-purpose peaking projects) between the government and private investment to avoid a waste of resources. However, the government itself will slowly step out of the business of building power plants and supplying electricity. Development of community-driven, innovatively financed small and micro hydropower plants and other isolated and standalone renewable energy sources like solar, biogas and wind will play a vital role in meeting the energy demand of the country, especially in areas where extending the central grid connection is expensive.

## 5.2 Health, Population and Settlements

This theme embraces sectors that impinge on the overall quality of life. This includes longevity, control of morbidity, family planning, population and migratory pressures, housing and living space, quality of air and water, and waste management. Discussed here are those components of the environment that directly impact on human health.

### 5.2.1 Longevity

The average life expectancy of Nepalis today has reached 61.9 years. Unlike the global trend though, women's life expectancy is lower than men's. More crucially, there has also been a sharp reduction in child mortality in the past thirty years, from 200 deaths per 1,000 live births to around 64.2 today. Maternal mortality rates, however, remain high at around 415 per 100,000 live births with only around 13% of deliveries attended by trained health staff. High prevalence of iron anemia in Nepali women (75%) together with early marriages also contributes to a high maternal mortality rate. Nutritional deficiency affects almost half the children although with supplementary medical interventions (like Vitamin A), it has been slowly receding among the under-5 children since 1990. The average mortality rates, however, hide regional dis-

parity, as well as the serious problems of malnutrition, inadequate health spending and outreach, and lack of viable income in many rural pockets. Problems of alcohol and drug consumption in urban areas are also growing threats to public health.

While increased national incomes have a strong correlation with increased social spending on health, long-term HMG objectives will center around increasing the span of healthy lives by expanding coverage and quality of essential and important forms of health services to all Nepalis. In line with the Millennium Development Goals, HMG will be directing its efforts to reduce under-five mortality by two thirds and to reduce maternal mortality ratio by three-quarters by 2015. HMG also expects life expectancy to cross 70 years by 2017.

### 5.2.2 Disease Control and Disability Relief

Incidences of diarrhea, neo-natal tetanus, acute respiratory tract infections, polio, measles, and tuberculosis are all very high among Nepali children. Immunization coverage of infants against diseases is far below universal. In fact, less than 40% of under-fives are fully immunized. HIV/AIDS among adults is a growing problem. Recent estimates that accept the caveat of under-reporting put the total number of HIV/AIDS infected people at over 35,000. Although available records cite only around 2% of the population as disabled, actual figure could be much higher than this. Per capita public expenditures in health is generally low at 2 US dollars per annum. The effectiveness of the existing health infrastructure suffers from bottlenecks ranging from poor supply of medicines in the rural areas to natural disease burdens that arise because of poverty-environmental linkages. Progress has been made in recent years in improving low cost domestic drug production.

A fundamental policy objective of HMG is to universalize primary health care. With the creation and maintenance of health posts in all villages of the country, HMG projects that

almost everyone in the country will be able to access a medical institution and cost-effective delivery of treatment within a few hours of travel time. HMG also expects to increasingly transfer management of sub-health posts to local communities. In the debut year of 2002/03, this policy benefited 20 sub-health posts in 10 districts.

Specific policies will center on targeted attention on nutrition for children, access to basic health services, both curative and preventive, in all remote villages including commitments to implement the National Plan for Safe Motherhood (2001-2017). Better coordination with other services such as potable drinking water, sanitation, and education will also be forged together with increased informational awareness on the causes of neo-natal, child mortality and general disease burden. These priorities call for increased per capita spending on public health, procurement of cheap generic drugs, greater involvement of local bodies and communities in communication drive. Policies aimed at reversing HIV/AIDS trend also call for prioritized attention to the most vulnerable groups. All policies and results aimed at enhancing longevity of Nepalis will be centrally monitored and coordinated. For this, the institutional strengthening of the health administration, especially at the district level is needed to step-up preventive and curative health services. HMG will also balance the need for upstream medical specialists and downstream public health workers. Priority on the latter will center on creating a large number of trained health workers, especially female. Nepal's disabled population will also be assisted with socio-economic relief and redresses both from the state and non-governmental organizations.

### 5.2.3 Family Planning and Migration

Institutionalized state intervention in family planning began only some 30 years ago. While the total fertility rate has declined much since, it is still high at around 4.1. Knowledge about contraception has increased

sharply, but actual use of contraception among non-pregnant married women of reproductive age is low at 30%. High fertility, in addition to lowered mortality rate, and immigration, have caused the population to grow at a fast rate of 2.25%, although it has declined from an even higher rate of 2.6% in the 1980's. Other things remaining the same, at the current growth rate of 2.25%, the population is bound to double in the next 30 years to almost 48.5 million.

Migration, both internal from the hills to the plains and external from India into Nepal, and vice-versa, is widespread. While movement of Nepali migrants to India is seasonal, prompted by low rural wages and agricultural slack periods in Nepal, many of the workers coming from India are more skilled and employed in the high wage paying manufacturing sector. Travel costs and lack of economic opportunities within the country have also distorted migratory movements of Nepalis, with most migrants from far- and mid-western Nepal preferring to travel to India rather than to central and eastern Nepal. Within the domestic labor market, the use of child labor is also a major concern.

Population growth in Nepal will be brought down to around 1% by 2017 through coordinated interventions in reproductive health and family planning, as well as regulation of migratory flows. The fertility rate has to be decreased considerably with an increased contraceptive prevalence rate. While employment-inspired labor movements are not abnormal in developing economies, the problem of seasonal migration in mid and far western regions of Nepal is quite serious – from the point of view of lost national labor, disrupted family and social ties, and health risk brought back by migrants. These demand a targeted attention of HMG in spearheading infrastructure and employment related development.

Over the past few decades there has been growth in the illegal practice of luring a sizable number of young Nepali women into prostitution within Nepal and abroad. Human

trafficking of all forms is disgraceful, impacting directly the health, freedom and dignity of a person. HMG will work to eliminate all forms of forced migration and sexual exploitation; introduce stricter legal provisions to convict and punish perpetrators; strengthen efforts, with the help of NGOs, to rehabilitate trafficked girls and women; and address the underlying causes that make Nepali women vulnerable to trafficking and sexual exploitation.

#### 5.2.4 Urbanization, Housing and Living Space

Although later and slower than in many countries, Nepal's population is gradually shifting from living in villages to living in urban areas. Concentration of population and economic activities in certain urban centers has created imbalance in the demand and supply of infrastructure and services; migration and urban growth has resulted in an urban housing shortage, crowded living spaces, growth of substandard squatter housing, and a rapid loss of per capita public space, including accessible green space and space for children to play, as well as permanent losses of prime forest and agricultural land. Many rural as well as some urban households using bio-fuels for cooking suffer from considerable indoor air pollution. Only 76% of urban households and 71% of rural households have piped water supply; only 76% of urban and fewer rural households have access to toilets. Current home environments and settlement patterns provide unhealthy living conditions for a large fraction of Nepal's population and they represent wasted resources with high opportunity cost. With a few exceptions, urban growth in Nepal has taken place in an unplanned manner that has contributed to public health hazards, as well as to high costs and complications in the delivery of infrastructure and services.

SDAN objectives include providing all people living in Nepal with access to safe drinking water and to adequate sanitary facilities within and around their homes. Smokeless

stoves are to be promoted to decrease indoor air pollution from bio-fuel. In the longer run, as Nepal's electricity supply builds up, even rural households will be encouraged to switch to cooking with electricity (or bio-gas). In urban areas, local governments will be directed to create zoning codes that ensure adequate public and recreational spaces, as well as protection of forests, riverbanks, agricultural land, and other common assets. In particular, urban growth will be directed to result in compact settlements that promote walking and use of public transportation, and that both provide adequate public space while protecting the best agricultural and forest lands in the rural areas, healthy settlement environment will be promoted.

#### 5.2.5 Air Quality

As mentioned in the previous section, a large fraction of Nepal's population is routinely exposed to unhealthy levels of indoor air pollution from biofuel combustion. The problem is especially acute for women (who spend more time exposed to kitchen fires), and during winter heating. Outdoor air quality in Nepal varies widely in space and time, but is generally getting worse. Several urban and industrial areas (particularly the Kathmandu Valley) experience concentrations of airborne particulates that are above WHO health standards. Concentrations of pollutant gases, such as CO, ozone, NO<sub>2</sub>, and SO<sub>2</sub> are today mostly below health limits, but emissions of these gases or their chemical precursors is growing rapidly within and upwind of Nepal. Emissions sources within Nepal include motor vehicles with poor maintenance and little tailpipe emissions control (these dominate emissions in some urban areas and highway corridors), factory smokestacks, widespread use of cooking for firewood, winter heating, as well as forest fires during the dry season. Meanwhile, combustion of biofuels in open stoves is responsible for hazardous indoor air pollution in large numbers of households in Nepal. This affects women more than men, as they typically spend much more time near the stove.

Outdoor air pollution is an especially large concern in the Kathmandu Valley, where half the country's vehicles, 57% of the country's industries, and 6% of the country's population pollute a very small volume of air confined by surrounding mountains and often also by a temperature inversion "lid" over the top. Any mountain valley with little ventilation is susceptible to severe air pollution problem if subject to large local emission sources. Remote areas in the country still have relatively clean air; this is a marketable asset for attracting visitors. However, clean air is under threat even in remote areas without large local emission sources: Nepal is downwind from mega-cities and growing industrial areas in India and Bangladesh.

The 15 years objectives include: setting strictly enforced ambient air quality standards, whose exceedance requires immediate cuts in activities responsible for emission, as well as requiring adequate control of emission from vehicle tailpipes and industry smokestacks. HMG will encourage the shift towards zero-emission vehicles, especially in dense urban areas, and the shift towards clean sources of industrial energy. HMG will also create conditions that foster the growth of institutions that increase domestic research and monitoring capability of air quality, and to create conditions that facilitate the establishment of domestic research and monitoring capacity for tracking the trans-boundary transport of air pollution into Nepal to provide necessary data for effective international negotiations. Meanwhile, HMG will also ensure the spread of cleaner stove technology and alternative cooking fuel sources to reduce indoor air pollution.

### 5.2.6 Water Supply and Quality

As most springs feeding Nepal's streams and rivers are within the country (and those outside are on the sparsely populated Tibetan plateau) ensuring water quality is mostly in Nepal's own hands. Himalayan springs provide water that is sufficiently pure and potential for bottling and export. In recent de-

cadecades, rivers downstream of cities and industrial areas have become increasingly contaminated by raw sewage and industrial effluents. Ponds near dense settlements have fared even worse. Public health in settlements depending upon surface water for drinking water is increasingly threatened. Meanwhile, in the Terai, there is growing concern about high natural levels of toxic arsenic in pumped ground water, while in the Kathmandu Valley, the rate of ground water extraction exceeds the recharge rate.

Access to adequate water is an acute problem in the major cities. In the remote areas supply of piped water is very much limited. Providing adequate quantities of safe drinking water to all households is of utmost priority. The discharge of untreated wastewater into rivers and lakes is to be forbidden, and enforced by local governments. Regulations and incentives are to be introduced for urban and industrial areas to build and operate wastewater treatment plants. Where drinking water sources are not adequately clean (for example with the arsenic pollution in the Terai), HMG will work to ensure that water is properly treated.

### 5.2.7 Solid Waste Management

The increase in inorganic packaging material and broken appliances has in recent decades created solid waste management problem that did not exist when households mostly composted or reused organic waste. Today garbage litters streets and trekking trails as well as pollutes rivers around many settlements in Nepal. Collection for recycling or reuse of inorganic materials is mostly confined to the informal economy run by low-income laborers whose services are inadequately recognized.

The objectives by 2017 include promotion of a reduction in waste volume, as well as increased reuse and recycling. HMG will also encourage research and industry to work together to create cyclical flows of materials, requiring factory products to be easily disas-

sembled and separated by material, and factory byproducts to be reused. HMG will also create conditions that facilitate the establishment of recycling centers that have economies of scale, and the establishment of hazardous waste management centers whose costs are paid for by products that emit the waste. Only non-recyclable waste is to be disposed in environmentally sound sanitary landfills.

### *5.3 Forests, Ecosystems and Biodiversity*

Development efforts can never be sustainable if they deplete natural resources and damage ecosystems. Environmental conservation should not be an after-thought of modern economic development; it is an intrinsic and in-violable part to prospects of poverty reduction and sustainable economic growth. In Nepal this is made particularly clear by the vulnerability of the mountains upon which many of our development efforts are centered. Any development effort that involves a physical change (whether through infrastructure construction or incentives that change migration or agricultural patterns) can have a long chain of consequences whose prediction requires deep understanding of the whole system of linkages between human economy, physical environment, and biotic ecosystems that inhabit and maintain the physical environment.

In contrast to other sections, discussion here will not be subdivided into subtopics. This is to facilitate an overview of linkages and to a better understanding of the present status of related topics in context.

The same topography that poses challenges to infrastructure development also has provided Nepal with a rich ecological diversity and forest resources. Within this mostly forested landscape live a large variety of animals, in a large variety of niches and micro-habitats made possible by the differences in temperature, altitude and moisture at different locations. Nepal has 118 types of forest ecosystems and it is inhabited by 9.3% of the world's bird and 4.5% of the world's mammal species.

The relative scarcity of land has forced the cultivation of steep slopes. Farmers have developed intricate, labor-intensive terracing techniques for cultivating slopes, aiming for minimal loss of top soil and micro-control of water flow. The subsistence farming that developed across much of the hills depended upon a close linkage between crop cultivation, livestock raising and forests. Forests provided firewood and animal fodder (among many other products), animals provided milk and meat, as well as fertilizer for the fields. The man-made and natural ecosystems were managed to function together to provide resources and services that sustained human life.

Fast degradation of forest land is a post 1950's phenomenon. During the 1950's, nationalization of forests took place leading to the removal of the ownership and management of resource base away from villagers without changing the demand for forest products. In addition, Nepal's population growth accelerated, roads were constructed that provided easy access to urban areas with growing demand for timber and firewood, while increasing number of foreign trekkers visited mountain areas consuming additional firewood. The result was a significant degradation and loss of hill forests, accompanied by other forms of land degradation.

First illegally and later encouraged by changed government policy, many villagers, with an especially active role by women, took conservation of forests into their own community hands. Today, community forest management in rural Nepal is a rare item in which Nepal has become a world leader. Although the country as a whole still faces net deforestation, many areas in the middle hills, where community forestry has been especially active, have seen a re-growth of forest biomass.

Over the past three decades, HMG has also been active in identifying areas of high biological diversity needing protection. Initially national parks were established from which the local inhabitants were displaced. The so-



cial problems thus generated, as well as the limited extent to which national parks could be created by removing people led to much learning and changing strategies. Initiatives were taken with conservation areas where people play an active role in managing the protected areas that they live in or near.

Even today, Nepal's poorest stratum depends most upon biodiversity products freely gathered from forests and other public lands. For instance, species diversity supplies a range of wild plant and animal products on which people rely for subsistence, barter and trade: foods, including fruits, nuts, fish, insects, and roots, wood for fuel, making tools and implements, furniture, grasses, reeds and leaves for thatch, mats, baskets, wrapping and fodder, leaf litter for fertilizer and various other products which are used as medicines, soaps, or for ritual purposes.

Over the next fifteen years, HMG will continue to pursue an adaptive, flexible policy that allows learning from experience to create an optimal management framework. Today, national parks and other protected areas cover about 18% of Nepal's land area, among the highest percentages in the world. Presently, the protected area locations are more concentrated in the Terai and high mountain areas, while hilly regions are underrepresented. The hills, however, are the region where community forest management is also most successful and has a potential of being extended to wider management of ecosystems. The management and conservation of ecosystem in Nepal faces several challenges. Terai and Siwalik forests continue to be lost at a rapid rate, generating concerns that in the future protected areas may become islands of natural vegetation surrounded by growing settlements. Species, such as tigers, rhinos and Asiatic wild elephant, which need large areas for survival are threatened by steady fragmentation of habitats.

Creative, well informed, and enforced land use planning is required to maintain a land-

scape complex of natural vegetation connecting protected areas together such that species can roam freely over a large enough area to sustain their populations. The Conservation Areas and Buffer zones are managed by local communities. Today such areas represent nearly half of the total protected areas in the country. The future of the biodiversity conservation program lies in the effective broadening of community based conservation programs. In the future, Nepal's biodiversity will also be increasingly threatened by externally imposed environmental challenges, including possible acidification of precipitation as well as changing climates that require species migration.

## 5.4 Education

Education is both a strong means and an end to sustainable development. An educated and skilled workforce is not only a crucial ingredient for activities that raise income per capita and well-being in general, but the pursuit of knowledge is an end in itself with immeasurable spill-over benefits to the person, family, community, and nation. Education has a direct bearing also on the quality of leadership that a society produces.

### 5.4.1 Primary Education and Adult Literacy

Today Nepal's adult literacy rate (15+ age group) is still low: about 50%. It also varies by population and gender: 67% for male and 35% for female, giving a literacy gender parity of 0.56. It varies greatly by ethnic and indigenous groups and between regions of the country. Adult education programs have only touched a fraction of the illiterate population. Among school-age children, over 30% of boys and 40% of girls do not begin school. Even students attending school face high dropout and grade repetition rates: children, especially girls, bear heavy household workloads (fetching water, collecting fodders, caring youngsters and grazing animals); schools are a long walk from home for about 25% of the primary school students; and many households cannot afford the cost of sending their children

to school. Private schools are mostly concentrated in urban areas and market centers. Many schools in rural Nepal often suffer from poor instruction quality, teacher truancy as well as shortages of books and other educational materials. There is increasing recognition that primary schools would be better run if they were community owned, with teachers directly accountable to parents. HMG has already begun taking concrete steps to support and expand this.

Sustainable development objectives include raising primary school attendance of every girl and boy to 100%, building more schools such that no primary school is more than half an hour walk from home, as well as raising the quality of instruction by providing better educational materials as well as teacher training courses. The primary school curriculum will also be revamped to teach more skills. There will also be more regional specificity in the curriculum so that pupils can learn about their local geographical and cultural vicinity as well as the rest of the world. The growing number of private schools will also need to be regulated through broad legislative directives to rationalize school fees and services rendered. Private educational establishments at all levels will also be encouraged to fulfill social responsibilities by setting aside scholarships for poor, deserving girls and boys especially from disadvantaged ethnic and indigenous groups.

#### 5.4.2 Secondary, Higher Secondary and Vocational Education

Although the number of lower secondary and secondary schools increased five fold between 1971 and 1997, the enrollment rates are still significantly lower than in primary schools. By secondary school age, the enrollment rate drops to less than a quarter for boys and less than one eighth for girls. The gender difference is a problem resulting from both the lack of awareness about the importance of female education as well as societal assumptions of the role of the male as the breadwinner. Be-

tween the secondary and the higher secondary (grades 11 and 12) level, there is a great attrition rate, as less than a third of students each year pass the School Leaving Certificate Examination that gives access to grade 11.

Education objectives include raising the enrollment of girls to the same level as that of boys, and raising the enrollment of both at all levels. The education system is to be improved to allow for better access and quality.

Further objectives include raising the number and quality of schools available throughout the country at the secondary and higher secondary levels, as well as establishing well-endowed scholarship funds to make access to quality education independent of family financial situations. In the short term, enhancing quality in schools would directly depend upon performance of teachers. Their pay and perks will thus need to be partially tied to their performance as measured, for instance, by standardized national and zonal exam results of their students.

Formal vocational training resulting in certificates is in its infancy in Nepal. Most workers learn their skills on the job; in general technical skill levels are low throughout the population. Nine technical schools in Nepal teach 16 different skills to students holding a 10<sup>th</sup> grade diploma; however the number enrolled is barely a tenth of the number of students who fail the SLC (10th grade) examination each year. The result is that a large number of youths neither can gain the skills needed for productive employment nor can continue to pursue higher education.

HMG objectives also include greatly increasing the vocational training choices available to students who are unwilling or unable to continue formal education. Especially important will be the establishment of a widespread system of stipend-paying, monitored and accredited apprenticeships in the private sector which provide young women and men with

the skills necessary to advance in occupations of their choice. Not to fragment scarce resources, and to promote synergies, HMG will also encourage the annexing of vocational wings to existing schools. It will also be important to keep access open to people of all ages by facilitating retraining

#### 5.4.3 Tertiary Education and Research

College and university education in Nepal has a long road ahead to becoming internationally competitive. Today, about 150,000 students are enrolled in campuses of the state-run Tribhuvan University (TU). In many faculties, quality of instruction and reputation of graduates has much room for improvement, as evidenced by the performance of graduates on the job market. In addition, especially during the past decade, TU's ability to function effectively has been hampered by frequent changes in politically appointed administrative posts, and by excessive political activism among students. A small number of recently founded private universities have established a reputation for quality instruction; but their small enrollment and high prices put them out of reach for most students. The last decade has seen a rapid growth in number of Nepali students pursuing tertiary education overseas, often at high cost to the family, and with a high loss rate to Nepal of students who do not return.

Fifteen years from now, Nepal is to have a university system that provides access and choices to any citizen who qualifies on the basis of merit, and produces well-trained graduates. A homegrown network of independent competing private as well as community colleges, universities, and research institutions is to be fostered through appropriate government policy.

Increasingly, state university students will be expected to cost-share in university education through user fees, or to receive scholarships and loans when deserving. This will screen students with the right motivation to pursue higher education. In order to increase

choice, competition, quality, and reputation, and also to increase domestic revenue, Nepal will make itself attractive for private and especially foreign investment in the tertiary education sector.

### 5.5 Institutions and Infrastructure

This chapter brings together sectors that facilitate a sovereign citizen's meaningful participation in all aspects of the nation's political, economic, and socio-cultural life, as well as provide the backbone upon which the nation's economy will function. Topics include issues of access and representation in state entities, transport, and communication facilities. Hydropower infrastructure was already discussed in section 5.1.

#### 5.5.1 Access to and Representation in the State and Governance

Exercise of good citizenship and people's participation in community and public affairs is both a means and an end of sustainable development. The 1990 Constitution makes the people of Nepal sovereign and a source of all state power. In a diverse country with many ethnic and religious groups, gender imbalance, and geographical differences, the pattern of access and representation of citizens in institutions of the state is, however, not even and representative. Among the three branches of state, the executive has the most visible presence; however inadequate institutional capacity, inefficiency in management, centralized structure, and systemic bureaucratic apathy coupled with a general lack of accountability and transparency have hindered and weakened proper discharge of state services. Nepal's reinstated democracy since 1990 has allowed citizens to become increasingly vocal and assertive in their demand from the state. Participation in national and local elections is widespread and the ability of citizens to organize into interest groups is becoming stronger. However, adequate participation by women, ethnic minorities and deprived sections has not adequately materialized in public affairs.

HMG's continuing objectives in this area will be to build upon the momentous gains enshrined in the 1990 Constitution — the source of sovereignty and of civic and political freedoms — to secure and increase the level of people's participation in public affairs, and promote the ease with which citizens have access to fair, accountable, transparent, and efficient services of the state. Public institutions will increasingly be represented and staffed by a wide range of ethnic groups and by a fair share of women. HMG's over-arching objective in the structure of government will be to redress the skewed pattern of access and representation. This is most important because HMG explicitly recognizes the country's diversity of heritage, ideas, ways of thinking, and practices as a source of national pride and strength.

Fairer, easier and more equitable access to and representation of citizens in state institutions need consistent, long-term, and coordinated strategies from education and urban policy to legal design and construction of physical infrastructure. All HMG policies will, thus, be informed and influenced by a need to ensure that all citizens irrespective of ethnicity, religion, caste, creed, and sex have access to and become part of all organs of the state. Decentralization of administration and political devolution have remained long-standing HMG policies which will be promoted over the coming years through substantive legal and financial autonomy. It is HMG's view that increased access and participation of citizens in community and state affairs not only expedites meaningful development efforts, but that these are also linked with the fundamental ends of development themselves, such as citizen honor and dignity. HMG recognizes that because this theme is important and all encompassing, it should and will cut across all national policies in every sector.

### 5.5.2 Transport Network

The efficiency of the country's transport network affects population movement, the

government's ability to deliver services, and the overall economy. A large part of the country is yet to be connected with modern transport; vast areas, especially northern parts of Nepal, are still several days walk from the nearest road; 15 districts have no road access. The domestic air transport network is extensive and plays an important role for many parts of the country, but it is unaffordable to much of the population. There is one international airport with a handful of overpriced flights. Government control, a state-owned monopoly, and bilateral agreements instead of open sky policies have suppressed competition on international routes and kept the number of flights small.

The last decade has seen major achievements in the surface transport sector with a doubling of the total road length, as well as the construction of many roads connecting villages. In some cases, these have been poorly built leading to loss of topsoil and triggering landslides. Cable cars, which have a lot of potential for transporting people and goods in mountainous areas are gradually attracting the private sector. Today, there is one operational railroad connecting a very short stretch. Nepal has several all-weather road connections to India, and one to China. The transport of goods to and from overseas takes place either by air or via a lengthy route through Calcutta harbor, making transportation cost expensive. Meanwhile traffic growth in several urban areas, most notably in the Kathmandu Valley, create the urgent need for planning of sustainable urban mobility that is efficient and flexible, while protecting air quality and cultural heritage.

Objectives by 2017 include providing most of the VDCs with at least one modern form of transport, as well as improving walking and mule trails. Most local roads will be constructed with local level decision-making using eco-friendly techniques. The private sector is to be attracted to the construction and maintenance of roads. There is also to be an exploration of the use of motor barges on some of the

larger rivers (perhaps with the removal of key rocks), as well as the invitation for the private sector and foreign investors to build and operate passenger and cargo railroads connecting the major urban areas of Nepal, perhaps through Build Operate Transfer (BOT) arrangements. In urban areas, local governments are to be assisted with necessary expertise to plan their own local transportation systems to efficiently and cleanly transport people and goods.

The private sector and foreign investors are also invited to build, improve and operate airports at sites that allow growth without noise concerns: the largest would be in the Terai area of Nepal with the capacity to develop into an intercontinental air travel hub of a scale not possible in Kathmandu. Connected to major cities in Nepal (as well as northern India) by efficient surface transport as well as by regular shuttle flights, this airport would handle most of Nepal's intercontinental and regional flights. The private sector would also be invited to invest in two somewhat smaller international airports serving the eastern and the mid-to-far western regions of Nepal (as well as adjoining parts of India) with regular flights to important cities in South Asia, to regions with trade/labor connection, and cargo flights.

### 5.5.3 Communication Network

Similar to the transport network, communication in Nepal made great strides in the last decade. Telephone lines increased several fold, vast rural areas received telephone lines, and cellular coverage was started in major urban areas and along highways. However, low income, low literacy level, and low access to electricity, among other factors, have to date limited expansion of Information and Communication Technologies (ICT) and perhaps widened the digital divide between social groups. Radio and television coverage are still not nation-wide, although the number of privately operated FM radio stations has risen from zero to twenty. Local bodies like the Kathmandu Metropolis has also started their own FM radio services. ISPs have started providing internet services in major cities, while

two new private television channels supplement the state-owned Nepal Television. The print media has also become most vibrant after 1990, with a healthy growth of national broad-sheets and newsmagazines.

The entire telephone network is operated by a government-owned monopoly. Communication policies are gradually being liberalized and they are showing results. A regulatory body on telecom has already been formed with the expectation that the state-owned telecom corporation will only be one of many players in the future. Some services, such as mobile phones, are already licensed to private providers. Much remains to be done. During the conflict micro-wave telephone repeater towers have been targeted and destroyed, cutting off several districts and demonstrating the vulnerability of a system dependent upon a small number of key nodes.

Telecommunication objectives include further liberalization and privatization of domestic fixed and wireless infrastructure and services, as well as creating a network with built-in redundancies and back-up routings such that destruction of one node cannot interrupt services.

By 2017, there is to be telephone as well as internet service in every VDC. Telecommunication access is to be improved through public as well as private investment. The latter is to be facilitated by legal provisions, fiscal incentives, and supportive operational regulations. HMG foresees a strong private sector role in this area and even public utilities will need to be guided by innovative, cost effective, and value-adding services. HMG has incorporated ICT in academic curricula and seeks to create a growing pool of human resources in this field. Management of local postal services may be handed over to the local bodies.

## 5.6 Peace and Security

Like honor and dignity, ability of citizens to lead secure lives is an important objective of

development itself. There are many facets of security. We cover here the following: security from violence, peaceful co-existence with neighbors; access to food, prevention from natural disasters, and climate change.

### 5.6.1 Regional Cooperation

Nepal is not a small country in terms of both territorial size and population. The fact that it is among the 40 most populous is often forgotten because it is nestled between nations with over 1 billion people each. The Indo-Nepal border is porous, only mildly regulated with mobility of people largely unaccounted. India presents a big market for Nepali products if it can be facilitated by mutually beneficial trade and transit treaties and linked by better transport infrastructure. The bordering Indian states of Uttar Pradesh, Bihar and West Bengal alone offer a regional market with 300 million consumers. It will be HMG's policy to pursue better-negotiated understanding and trading arrangements with India and China. In addition to trade, the border is to be arranged to oversee flow of people, as well as check movement of restricted items, screen diseases, and be vigilant about movement of terrorists. As the host of the SAARC Secretariat, Nepal will also aspire to play a more active role in ensuring peace in the region by assuming neutral, mediating roles.

### 5.6.2 Strengthening Democracy and Fight Against Terrorism

It is HMG's non-negotiable position that there is no justification for any form of armed insurgency in the country when all civil channels for expression of dissent are open and there are constitutional guarantees to secure political expression peacefully and change of government through elections. Terrorism not only impacts on the security of the current generation of the living, but by disturbing peace, it directly impacts on the development prospect, stability of the country, and security and well being of current and future generations.

There are a few fundamental principles that HMG will uphold in tackling terrorism, sub-

version, and armed insurgencies. First, they will be sought to be ended through dialogue and peaceful settlement. Second, there is no room for violence in the country, and every citizen has the right to lead secure lives, as well as defend herself. Third, perpetrators of unlawful destruction and violence will be captured and tried as per the laws of the land and no citizen will be allowed to possess unlicensed arms. Fourth, as a maturing democracy, Nepal will honor all its commitments to protect human rights, especially those enshrined in the Universal Declaration of Human Rights and not misuse state security apparatus in taming any kind of dissent. Fifth, HMG will identify the underlying causes of discontent and seek to implement with sincerity the socio-political-cultural redresses.

### 5.6.3 Food Security

Recent decades have seen repeated incidences of hunger and starvation in remote districts of mid-western Nepal. Food security requires meeting two conditions: first, local agricultural production and/or the supply network has to physically bring enough food into a location of need. Second, all people must have the means of acquiring food, whether through access to land, livestock, cash crops and grain, or through sufficient income to allow purchase of needed food. These conditions can be threatened by a variety of factors: by floods and landslides damaging fields and/or the transport infrastructure, by collapse of an income source, or by political violence and instability.

Sustainable development cannot proceed under a situation of hunger; and food security cannot be ensured through external supplies alone. HMG will, thus, set utmost priority to food security by ensuring that the regional agro-ecological and economic systems supply enough food to the whole population under normal circumstances, and by preparing for unexpected times of additional threat. The latter will require setting up a dispersed network of emergency food storage centers throughout the country, as well as a fund that allows making that food available to people in

need at prices that they can afford. As mentioned earlier, it will also be important to ensure not just access to adequate amount of food but also to nutritionally balanced food, such that malnutrition can be fully eliminated.

#### 5.6.4 Climate Change

Recent research indicates that human induced climate change is real, already taking place, and certain to proceed in future decades. Uncertainties and debates remain in the timing and exact magnitude of predicted changes, but there is little doubt that even a slight increase in global average temperature is accompanied by much larger changes in local and regional climates. Nepal's blame for causing climate change is negligibly small: today Nepali citizens comprise less than 0.4% of the world population and are responsible for only about 0.025% of annual greenhouse gas emissions. Nepal's vulnerability to damage from climate change, however, is large. Temperatures are likely to increase more in high mountain areas than elsewhere. Glaciers and snowfields will recede and may even disappear, reducing Nepal's dry season river water source. This will impact irrigation and drinking water supply as well as the reliability of hydroelectricity. In addition, receding glaciers often leave behind growing glacier lakes that can break through terminal moraines causing catastrophic floods. Global climate change will also likely shift monsoon precipitation patterns in ways that will threaten Nepal's current agricultural practices, as well as threaten infrastructure. Changing temperature and moisture patterns will also threaten biodiversity, especially in mountain areas where migration of species is physically restricted.

Only vigorous economic growth can provide Nepal with the means to withstand and mitigate some of the effects of a changing climate that Nepal did not choose and did not cause. Ironically, in the short run, Nepal's economic development depends on increased domestic GHG emissions, as no alternative fuel today allows as cost effective, efficient, and flex-

ible a transportation system as one based on motor vehicles. However, a move towards investing in cleaner, energy efficient vehicles will make increasing economic sense and provide other benefits, including less air pollution, and less fuel import dependence. Compared to many countries, Nepal's economy is not yet locked into heavy fossil-fuel dependence; this provides many opportunities to choose cleaner paths from the start.

Nepal's foreign policy situation with regard to climate change is different from that of its neighbors as well as most other LDCs. It shares the low-blame, high-vulnerability features of other developing mountain and small island nations. It will thus play an active role in international arenas, vigorously defending its right to continue its economic development unimpeded by restriction on cost effective energy. However, because of its hydroelectricity potential, it is also sitting on a clean domestic energy source that can meet not only most of its future needs, but also supply an exportable surplus. Nepal's ability to export hydro-electricity at a beneficial price would benefit from restrictions on GHG emission upon large nearby countries, as well as improved international recognition of hydroelectricity as a clean source of energy.

#### 5.6.5 Natural Disasters

The monsoon that brings rain and life to rural Nepal also brings destruction and disaster. Every year hundreds of people in Nepal die from flashfloods and landslides, and thousands more lose their homes, fields, and livestock. Every year landslides damage the country's transport network, and the economies that depend on it. This is due to a number of causes, including young geological structure, steep slopes, unplanned settlements, rapid deforestation and the construction of infrastructure without appropriate protection of the alignments. Nepal's rugged topography is responsible for rainfall patterns and microclimates that vary greatly in space, making accurate weather and flood predictions extremely difficult.

Nepal's location, straddling major faults along the growing Himalaya mountain ensures that the country experiences strong earthquakes once or twice a century. Heavy losses are best avoided by constructing houses resistant to collapse and fire, by training the population to protect themselves when an earthquake occurs and by having emergency response plans, materials, and equipment on stand-by at all times. Apart from a few earthquake resistant building designs, our preparation for a large earthquake is poor. Nepal is also not equipped with any early warning system. Setting this up could save many lives.

Nepal has also experienced several severe floods from rapidly draining glacier lakes. These "glacier lake outburst floods" (GLOF) occur with the collapse of the terminal moraine dam that holds up the water at the lower end of the lake. The recent and future receding of Himalayan glaciers due to a warming climate, and the consequent growth of lakes between the moraines and the receding ice, are causes for concern, since both a larger vol-

ume of water is stored (potentially larger flood), and an increasing water level adds pressure on the moraine. Proper monitoring of all glacier lakes is needed in order to allow similar mitigative and corrective measures.

Objectives in natural disaster management by 2017 include decreasing the loss of lives and property by landslides, earthquakes, and floods by orienting new constructions towards appropriate locations, conducting research and setting up monitoring system that provides early warning (rainfall, GLOF, earthquake), as well as setting up alarm system that can convey advanced notification to people in areas at imminent risk. There is also a need to stockpile emergency relief materials and equipment at strategic locations. In urban areas, there is need for creating more open spaces. An urgent task is the establishment of early-response teams at both the local and national level that can be deployed immediately following a disaster. Each disaster will also be analyzed closely to draw lessons to allow faster, more effective deployment the next time.



# 6

## *Summary of Policies*

Against the backdrop of the status and objectives for various sectors discussed in Section Five, this section summarizes specific existing or new policies that need to be pursued with greater effectiveness by HMG in order to achieve sustainable development as defined earlier.

### *6.1 Economic Growth and Poverty Reduction*

#### **6.1.1 New Investment and Trade Opportunities**

Achieve and maintain broad-based pro-poor growth to at least 7% per annum that draws on intensive agriculture and agro-industries, hydropower and services such as eco-tourism which contribute to reducing absolute poverty levels to a single digit percentage point; remove policy inconsistencies to attract foreign direct investment; reform policies to accelerate private sector participation and good corporate governance, export products and labor to new markets secured through economic diplomacy and WTO membership, and channel remittance through formal banking sector into productive investment; complement global integration by institutional preparedness at home.

#### **6.1.2 Substantial Financial Re-structuring**

Increase revenue generation through effective implementation of taxes such as the VAT and a widening of the tax base; reduce burden of debt servicing; reform financial system through prudential regulation.

#### **6.1.3 Better Public Sector Provisioning**

Utilize development budget fully with multi-year planning of public expenditures and prioritization of government projects and programs; improve provision of public goods; gradually privatize state-owned-enterprises.

#### 6.1.4 Optimized Growth and Reorientation in Agriculture

Drawing on added investment in fertilizers, irrigation, research and extension, infrastructure, increase both the value and volume of production, especially of high-value-low-volume crops; expedite land reform, land use management and security of contractual farming.

#### 6.1.5 Targeted Development Programs

Improve social indicators and infrastructure in the poorest regions, especially the far and mid-west, and among the poorest groups – Dalits, indigenous groups, and women among them. Strengthen Poverty Alleviation Fund (PAF) and establish local development funds for investment in infrastructure.

#### 6.1.6 Environmental Redresses

Create economic incentives to use clean energy sources; require environmental impact assessments and analyses of alternatives for all projects.

#### 6.1.7 Social Mobilization

With assistance of NGOs, facilitate expansion of organized groups of the poor through better linkages with local bodies and their extension services in health, agriculture as well as provision of credit, skills training, and adult education; operationalize the Poverty Alleviation Fund.

#### 6.1.8 Increased Social Security and Safety Nets

Widen the net of vulnerability allowances to the elderly, widows, disabled and others; spread publicly and privately provided insurance schemes to cover all households against risk to health and property.

### 6.2 Health, Population and Settlements

#### 6.2.1 Nationwide Network of Health Service

Provide to all citizens access, within at most a few hours of travel, to basic health care facilities that offer medicines and services; increase the number of women working as

trained health staff; restructure the incentive and administrative enforcement system in the health bureaucracy. Work towards providing health insurance to the population to ensure increased access to health services.

#### 6.2.2 Inter-sectoral Linkages

Integrate health issues with nutrition, education, food security, and drinking water for an inter-sectoral approach to improve social indicators.

#### 6.2.3 Decentralized Administration

Increasingly manage district and village health installations by local bodies. Most communication drives on health awareness, including HIV/AIDS, drugs and alcohol consumption, to be locally driven in conjunction with community and women's groups and mass media.

#### 6.2.4 Control of Fertility, and Child and Maternal Mortality

Honor commitments to internationally agreed Universal Rights of the Child; ensure protection of children from armed conflicts; effectively implement national safe motherhood plan; improve Contraceptive Prevalence Rate; halve child under-nutrition rate.

#### 6.2.5 Regulation of All Forms of Labor

Abolish child labor and bonded labor; monitor labor movement in and outside the country; create a domestic pool of skilled workforce while honoring ILO conventions on minimum wage, maternity leaves, occupational health and safety standards.

#### 6.2.6 Emissions Control

Move towards zero emission vehicles; set and encourage air quality standard; enforce ban on untreated wastewater discharge from industries and municipalities; create incentive for wastewater treatment; expand research on air quality; get local governments to establish programs on recyclables including the policy of making households pay for non-recyclable domestic waste; increase the regulatory role of the state, but also increase private sector provisioning of environmental services such as waste management.

## 6.3 Forests, Ecosystems and Biodiversity

### 6.3.1 Management of Natural Forests and Protected Areas

Promote people's participation in forestry resource development, management, and conservation; ensure that protected areas bring economic benefits to local communities by promoting protected areas as tourist destinations.

### 6.3.2 Conservation of Ecosystems and Genetic Resources

Implement Nepal's Biodiversity Strategy, which emphasizes conservation and management of biodiversity contained in forests, rangeland, protected areas, wetlands and agriculture.

### 6.3.3 Conservation of Biodiversity at the Landscape Level

Recognize the role of large-scale threats from climate change, habitat fragmentations and loss of forest cover, and conserve biodiversity outside protected areas as well.

### 6.3.4 Protection of Land Against Degradation

Take steps to minimize losses from soil erosion, floods, landslides, desertification, and other effects of ecological imbalance. Require local governments to prepare and enforce land use plans so that integrated land use principles are followed; more effective interaction between forestry and farming practices to contribute to food production.

### 6.3.5 Promotion of Sustainable Harvest and Management of Non-Timber Forest Products

Promote cultivation of NTFP on private land and in community and leasehold forests, especially medicinal and aromatic plants; conduct forest resource assessment and adaptive research.

### 6.3.6 Agricultural Biodiversity for Marginalized Mountain Communities

Continue ensuring variability in crop species by traditional farming systems through participatory plant breeding, participatory variety selec-

tion, community seed banking, utilization of landraces, and indigenous knowledge systems.

### 6.3.7 Conservation of Rangelands

Develop cohesive and comprehensive rangeland conservation strategies on biological resources by and between the forestry and agricultural sectors, which is critical for a majority of endangered species as well as for the subsistence of mountain communities.

### 6.3.8 Research and Exploration of Medical Application and Income of Nepal's Biodiversity

Regulate the export of herbs; encourage local researchers to study the healing properties of herbs used in traditional medicines; facilitate rapid patenting of drugs derived from Nepal's herbs.

## 6.4 Education

### 6.4.1 Access to School Education and 100% Literacy

Make every girl and boy attend primary school; provide adult education programs. Increase community-managed primary and secondary schools; create conditions that allow more girls to attend secondary schools. Restructure school systems so that high school education formally terminates at grade twelve.

### 6.4.2 Vocational Training Opportunities

Increase the number and enrollment of existing vocational training schools; build new such schools, encourage the private sector to provide formal vocational training opportunities for both women and men.

### 6.4.3 Improve the Quality of Colleges and Universities

Depoliticize universities; increase the number of regional universities; encourage competition; and invite foreign investment in education and encourage the establishment of international university.

### 6.4.4 Improve Domestic Research Capacity

Establish a well-endowed national research fund; establish a council that lists research fields of national priority and conducts.

## 6.5 Good Governance

### 6.5.1 Effective Decentralization

Devolve political, financial, and administrative authority to empowered locally elected entities that increasingly manage local public services such as agriculture extension, education and health; increase grants to local bodies on the basis of poverty and population levels; assist them to create local resource bases and to explore new ways of revenue sharing; amend Acts for greater legal authority.

### 6.5.2 Review Patterns of Access and Representation

Periodically review entry requirements and existing staff composition of all publicly funded state entities. Set meritocracy as the guiding principle, but have the state seriously redress uneven gender as well as socio-ethnic composition.

### 6.5.3 Civil Service Reforms

Restructure and reform state organs, like the administrative bureaucracy, Police and the Army, that have direct contact with the citizens, in favor of retrenchment, meritocratic representation of gender and ethnicity, cost-effectiveness, and better public service and value for tax money.

### 6.5.4 Good Governance Legislation

Develop and promulgate strong bills assuring good governance through respect of human rights, citizen's charters, control of corruption and abuse of public authority, and other means to improve transparency, accountability and participation in public expenditure management.

## 6.6 Infrastructure

### 6.6.1 Nationwide Network of Surface Transport

Emphasize the connection of all districts by modern transport; provide adequate funding and technical guidance to district and VDC for construction of roads, cable cars and improved trails; explore the feasibility of motor boat and barge operation on large rivers as well as the linkage of railroads.

### 6.6.2 Private Investment in Transport Infrastructure and Services

Encourage the private sector to invest in and operate long-distance highways and railroads as well as telecommunication infrastructure and services; disband cartels and encourage bus operations that compete with price and service level.

### 6.6.3 Local Development Funds for Infrastructure

Facilitate through endowments the local decision-making on formulation, execution, maintenance, and ownership of small-scale infrastructure projects such as irrigation, agricultural roads, local roads and other public works.

### 6.6.4 Food Security

Establish emergency food storage centers throughout the country; reduce transport interruption by encouraging the development of a transportation network with multiple connections; ensure adequate fertilizer and seed supply to rural areas.

### 6.6.5 Aviation Policy

Privatize RNAC and open international routes to open competition from Nepali and foreign airlines; continue the present policy of private domestic aviation of modified open sky (with price ceiling and incentive to operate "public service" routes); create conditions whereby the private sector and foreign investment build several airports around Nepal.

## 6.7 Peace and Security

### 6.7.1 Constructive Diplomacy

Secure new global markets for Nepali products and workers; improve bilateral trade ties with India, China and other immediate neighbors, as well as other landlocked and mountain nations, activate economic diplomacy in promoting tourism and investment.

### 6.7.2 Regulation of Border

Monitor and record the flow of foreign migrants, block the trafficking of women and children, and the flows of diseases, terrorists, and restricted items.

### 6.7.3 Coping with Violence

Leave no room for unlicensed arms possession and terrorist activities; try to end all forms of dissent through dialogue and negotiated settlements.

### 6.7.4 Emergency Response

Create a national disaster preparation and management agency that guides and assesses preparedness for disasters; set up a system of

early warning in every village to convey warnings of flood, landslide, or earthquake; build decentralized emergency response capacity; enforce safety design standard for buildings and infrastructure that take into account site-specific risks; research and invest in earthquake prediction system as well as weather prediction system; monitor all glacier lakes and have siphon materials ready for rapid installation.

# 7

## Implementation

### *7.1 Monitoring and Evaluation*

The Sustainable Development Agenda of Nepal is a broad, national, vision-setting document that is expected to guide the policies and programs of HMG presented to the budget sessions of the parliament each year, as well as the annual presentation of revenue and expenditure estimates (budget), the five-year plans, and all long-term sectoral strategies. SDAN is thus more than a static document. Its objectives and policy guidelines will take the form of an umbrella under which all disparate development strategies will be placed and be made coherent. This will be a continuous and cyclic arrangement of feedback for, i) broad monitoring of progress towards development goals, ii) necessary modifications, and iii) consequent updates. Three features are recognized here:

#### **7.1.1 Community Participation and Civic Scrutiny**

People are the most important beneficiaries, of development. Their participation in the formulation, execution, monitoring, and evaluation of all development efforts is fundamental. Since several grassroots initiatives will be undertaken in support of broad policy objectives, it will be important to mandate people's engagement in almost all development initiatives launched in their name. Community-based monitoring and evaluation will thus form part of all development projects at the grass roots level. This form of beneficiary scrutiny will not only promote the attainment of immediate project or micro-level objectives, but effort will also be made to distill and channel broader lessons and cases of successes, as well as failures, to higher tiers of development decision-making. This way, community-based monitoring and evaluation will be institutionalized to inform all formal policy making processes. Methods of public expenditure tracking will also be adopted to monitor and scrutinize the flow of

public funds from the exchequer down to the people in each district and village.

### 7.1.2 Decentralized Monitoring and Evaluation Capacities

While informal civic participatory efforts have their merit, these are best complemented by institutionalized, formal channels of monitoring with a functioning feedback loop established in the planning cycle. Since HMG is committed to advancing the processes of decentralization and greater financial as well as legislative empowerment to local bodies, it will strengthen local bodies' ability to plan and execute annual or multi year development plans at the district and village level. Here, the usual biases strengthening the front-heavy planning capacities will be balanced by strong monitoring capacity at the local level to solicit feedback on performance of projects and programs, process the feedback, analyze them and incorporate them into subsequent plans. This will also help in establishing a system whereby the district level lessons are relayed to the ministry level for policy lessons and better sectoral strategies will also be instituted.

### 7.1.3 Coordinating Central Monitoring

As outlined at the outset, because SDAN is a broad vision setting process and not a self-contained development strategy per se, a central level entity that coordinates different HMG initiatives, from the annual budget and the periodic plan to sectoral strategies, is envisioned for keeping track of the broad development goals. Monitoring results as reported from the grassroots through surveys, censuses and individual development programs will be consolidated and analyzed centrally so that modification can be made and thrust of priority shifted. This central entity to monitor, modify and update broad development strategies will be the National Planning Commission in conjunction with the newly-formed National Commission on Sustainable Development. Fundamentally altering a past practice, the feedback chain from the community level to the local bodies and then on to the

central entity will be institutionalized and operationalized. SDAN thus foresees the people being completely at the center of the cycle of all development efforts from planning to evaluation. A coordinated reporting system on SDAN with overall poverty monitoring system will also be put in place .

## 7.2 Institutional Arrangements

The National Commission on Sustainable Development (NCSD) was formed on 4 April 2002. The Commission is to be chaired by the Prime Minister with the Finance Minister as Vice Chairman. It is a high level commission that draws on a wide membership going beyond the cabinet to include seven representative members from the following major groups of stakeholders: Farmers, NGOs, Industry and Commerce, Women, Ethnic Groups and Youth, Labor, Science and Technology Community, and Elected Bodies. From the executive, full rank cabinet ministers from the following ministries are members of the Commission: Health, Agriculture, Foreign Affairs, Women, Children and Social Welfare, Water Resources, Science and Technology, and Forest and Soil Conservation. The Vice Chairman of the NPC is also a Member of NCSD, while the Member-Secretary of the Commission is the Secretary of the Ministry of Population and Environment.

This high level commission is to endorse and issue broad vision and guidelines. However, given the all-encompassing nature of sustainable development goals, it is necessary for all actors — the state, civil society and the private sector — to play their respective roles in implementing the policies and strive to meet the goals and objectives outlined as part of the country's Sustainable Development Agenda.

## 7.3 Expectations from the International Community

At its current stage of development, given the capacity, knowledge, and financial constraints of the country, Nepal will only be able to meet

the goals set out in this Agenda if its existing resource base is complemented synergistically by external assistance that may arrive in many forms. While dependence on foreign aid has to be gradually phased out, current trends and allocations of external financial and technical assistance will need some re-orientation with greater focus on its more effective use. Nepal has been fortunate to have a generous access to international resources for many years. This flow of international assistance is expected to continue to play an increasingly catalytic role in, i) triggering policy reforms, ii) supporting local initiatives, and iii) filling crucial knowledge gaps so as to ensure that development initiatives are not only initiated, but also nurtured and sustained nationally.

Besides receiving conventional forms of foreign aid, Nepal as a landlocked, least developed country (LDC) also rightly maintains its claim to special attention in all international fora. As least developing countries seek to integrate themselves into the global economy, through membership of the World Trade Organization and various regional trading blocs, the international community needs to recognize the difficulties faced by LDCs like Nepal in accepting multi-lateral obligations of making concessions on goods and services, and of also participating effectively in the accession process, as highlighted at the Third UN Conference on LDCs in Brussels, 2001. Nepal must be allowed to maintain its policy space, and avail of the basic principles of special and differentiated treatment with automatic eligibility in existing WTO Agreements ranging from agriculture and services, to intellectual property, investment measures, and use of subsidies and anti-dumping. Richer trad-

ing and investing nations should be more lenient in their offers of access for products originating in countries like Nepal. Nations, especially those that are industrially affluent and more responsible for climate change, pollution, and other environmental damages should do more to assist poorer countries redress their environmental problems through transfer of technology, expertise, and compensation.

One of Nepal's key identities originates in its Himalayan location, which hosts eight of the ten highest mountains in the world including Mt. Everest. Although half the country's population now lives in the Terai and Inner Terai – a narrow strip of flat land extending from the Indo-Gangetic plains, more than four fifths of the country's area is mountainous. Mountain eco-systems impact the prospects of development in the Terai, for example through the flow of irrigation, ground water recharge, and flood waters. Forming alliances with other mountainous countries for mutual co-operation and seeking assistance from international fora to conserve and develop sustainably its precious mountains and mountain-based resources is thus key to sustainable development of Nepal.

Nepal, as a sovereign territory, also believes in being an active member in the global community of nations. It recognizes the importance of multilateral organizations like the United Nations, and wishes to see these strengthened to respect, with greater effectiveness, the concerns of small, landlocked developing countries like Nepal in order to achieve shared global goals of peace and sustainable prosperity.



# NEPAL

