



# Nepal Millennium Development Goals Progress Report 2013







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# **FOREWORD**

or the last 13 years the Millennium Development Goals (MDGs) have helped consolidate the international development agenda that once looked factious as different countries and development partners tried different approaches. The MDGs could be viewed as the most effective anti-poverty campaign in history, bringing together governments and development partners to achieve a set of indicators that were measureable and ultimately sought to reduce poverty—improving quality of life, especially for the poorest of the poor. Now as the deadline inches closer, assessing progress and identifying remaining gaps should rightly be the main agenda we address. The countdown to 2015 presents an opportunity for the Government, the UN system and development partners to celebrate success as well as find ways to accelerate progress where Nepal is likely to fall behind.

As this Nepal MDGs Progress Report 2013 points out, the Government of Nepal's commitment to achieving the MDGs, coupled with required policy reforms has borne fruit. Nepal is on track and is likely to achieve most of its MDG targets, despite the prolonged political instability. The targets for poverty reduction, maternal mortality, and boys and girls enrollment in primary education are either achieved or likely to be achieved. Even in areas where Nepal is lagging behind, particularly in sanitation, it has already internalized an acceleration framework in the form of the MDG Acceleration Framework (MAF) to mobilize adequate resources to expedite progress by 2015. This Report provides the updated status of progress since 2010, identifies the unfinished agenda for the remaining time and a new agenda for beyond 2015.

This Report draws lessons from Nepal's nearly one and half decades of experience with MDGs. It goes further and underscores the importance of decentralised governance, community mobilization, and targeted programs to achieve and sustain social targets—while offering solutions to ensure full employment and eliminate hunger in a sustained manner. The Report also delves into opportunities for economic growth and increasing trade to employment and wealth generation.

While highlighting the progress, the Report also raises alarm over certain critical issues, such as growing disparity and a high level of exclusion within Nepali society. It cautions on the vulnerability of the Nepali economy, including dependence on remittance. The Report calls for more investment in employment generating activities, including agriculture and tourism.

In the run up to 2015, this Report offers a comprehensive look at Nepal's efforts to meet the MDGs, and gaps that are likely to constrain further progress. We believe this will provide valuable insights for the Government of Nepal, development partners and other stakeholders alike as they seek to accelerate progress on MDGs by 2015 while setting an ambitious sight to graduate from Least Developed Country (LDC) status into developing country status by 2022.

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# ACRONYMS AND ABBREVIATIONS

ANC Antenatal care

API Annual parasite incidence
ART Anti-retroviral therapy

BEOC Basic emergency obstetric care

CB-IMCI Community-Based Integrated Management of Childhood Illness

CB-NCP Community-Based Newborn Care Package

CBS Central Bureau of Statistics

CEOC Comprehensive Emergency Obstetric Care

CHD Child Health Division
CMI Clinical malaria incidence
CPR Contraceptive prevalence rate

CSW Client of sex worker

DFRS Department of Forest Research and Survey

DNPWC Department of National Parks and Wildlife Conservation

DoE Department of Education

DoHS Department of Health Services

DOTS Directly observed treatment system

D(P)HOs District (Public) Health Offices

DWSS Department of Water Supply and Sanitation

ECD Early childhood development

EDCD Epidemiology and Disease Control Division

FHD Family Health Division

FINNIDA Finnish International Development Agency

FSW Female sex workers
GDP Gross domestic product

HIV Human Immunodeficiency Virus

HMIS Health management information system

HP Health post

IMF International Monetary Fund

IMR Infant mortality rate

I/NGO International/ Non-governmental organisation IUCN International Union for Conservation of Nature

LLIN Long-lasting insecticide-treated bed net

MDG Millennium Development Goal

MDGNA Millennium Development Goals Needs Assessment

MMR Maternal mortality ratio
MoE Ministry of Education
MoEnv Ministry of Environment

MoES Ministry of Education and Sports

MoF Ministry of Finance

MoFSC Ministry of Forest and Soil Conservation
MoHP Ministry of Health and Population
MPPW Ministry of Physical Planning and Works
MSM Men who have sex with other men

MW Megawatt

NHSP

NCASC National Centre for AIDS and STD Control NDHS Nepal Demographic and Health Survey NFHP Nepal Family Health Programme

Nepal Health Sector Programme

NMR Neonatal mortality rateNLFS Nepal Labor Force SurveyNLSS Nepal Living Standards Survey

Norad Norwegian Agency for Development Cooperation

NPC National Planning Commission

NRs. Nepali rupee

NTC National Tuberculosis Centre
ODA Official development assistance

OECD Organisation for Economic Co-operation and Development

PHCC Primary health care centre
PPE Pre-primary education
PPP Purchasing power parity
PWID People who inject drugs

RQCC Regional quality control centre

SBA Skilled birth attendant

SHP Sub-health post

SMC School management committee

TB Tuberculosis

TYIP Three-Year Interim Plan (2007/08–2009/10)

TYP Three-Year Plan (2010/11–2012/13)

U5MR Under-five mortality rate

UN United Nations

UNDP United Nations Development Programme

UNICEF United Nations Children's Fund UNFPA United Nations Population Fund

USAID United States Agency for International Development

VDC Village Development Committee

WECS Water and Energy Commission Secretariat

WB World Bank

WHO World Health Organisation
WTO World Trade Organization

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# INTRODUCTION

#### **Background**

Nepal is one of 189 countries committed to the Millennium Development Goals (MDGs), a pledge it has renewed in its national development plans. The primary medium-term strategy and implementation plan for reaching its MDGs, the Tenth Plan (Poverty Reduction Strategy Paper) (2002/03-2006/07) incorporated the MDGs into its strategic framework. Other plans have done the same. The Tenth Plan focused on reducing poverty through private sector-led economic growth. The Three-Year Interim Plan (TYIP) (2006/07-2009/10) adopted after the Tenth Plan maintained the focus on poverty reduction and growth but also stressed the need for the state to assume a greater strategic presence in development, especially in remote areas, and for socially marginalised groups to be included. The plan after that, the Three-Year Plan (TYP) (2010/11-2013/14), continued the call for strategic investment in areas in need of greater focus if Nepal's MDGs are to be achieved. Nepal's first three MDG progress reports, those of 2000, 2005, and 2010, provided a solid foundation for assessing where the nation stood vis à vis the complete set of development indicators. Together

they have assessed the status of the eight goals, identified gaps in the achievement of targets, considered the rate and pace of changes in indicators, and revealed the constraints and challenges to achieving all targets by 2015.

#### About the review

An MDG needs assessment was carried out in 2010 to identify needs and to come up with broad ideas for filling resource and other gaps. Since that assessment (MDGNA 2010), the government has carried out a new population census, the National Population and Housing Survey of 2011; conducted several new national surveys, including the National Living Standard Survey (NLSS) of 2010/11 and the Nepal Demographic Health Survey (NDHS) of 2011; and released the 2013 Flash Report on Education. This review updates the status of each MDG and progress toward its targets using the new information and suggests a road map for meeting the unmet targets by 2015. It provides input to global-level thinking for beyond 2015 and will help in the currently ongoing process of preparing a new national plan. The review has three objectives:

- to update achievements in and progress toward achieving MDG targets since the 2010 report;
- 2. to reflect on the totality of Nepal's experience with its MDGs;
- 3. to identify unfinished business as well as emerging priorities.

### In addition, this report seeks answers to questions like those below.

- When did the MDGs first get traction in the national planning process, and who were their institutional champions? Did some goals or targets attract greater attention and effort than others?
- What have been some of the key and signature initiatives adopted that have helped drive progress towards the MDGs at the country level, and what is the nature of their impact?
- ➡ Have there been distinct changes in policy, legislation or institutional arrangements that have helped propel the MDGs forward?
- ⇒ Are there other ways in which the MDGs have influenced national or sub-national development agenda in specific sectors? Have any innovations, which improve service delivery arrangements been introduced?
- ⇒ Are there specific examples of how the MDGs helped focus attention on the poor and on excluded and hardto-reach groups?
- To what extent have the MDGs helped in monitoring progress and in the use of data for determining national and sub-national policy?
- What features of the MDGs have been most helpful and why? Have there been any negative effects?
- What kind of partnership and coordination arrangements have been adopted by government agencies, including key partners, donors, civil society and the private sector, to improve coherence and maximise impact?

Have external development partners played an especially significant role with regard to any of the MDGs? What form has such assistance taken?

This report will motivate a final push to achieve the MDGs in 2015 and contribute to the framing of the post-2015 development agenda. It is expected to make valuable contributions to the 2013 MDG review, a high-level event to be held in conjunction with the 2013 session of the UN General Assembly.

The report has two parts. The first assesses the change in the status of each goal and target, identifies constraints and challenges to meeting any remaining gaps, and suggests strategic interventions to strengthen efforts to achieve the MDGs by 2015. The second part reflects on and draws lessons from the entire MDG process right from its beginning in order to think beyond 2015 and identify priority areas for the next few decades. The findings and recommendations of this report will help the National Planning Commission (NPC) both to frame a long-term development plan and to prepare the next three-year plan, which will replace the current one in July 2013.

The data used was drawn largely from the 2011 Census, NDHS 2011, NLSS 2010/11, and Flash Report on Education 2013, all studies carried out after the MDG progress report of 2010 was published. In addition, the team interviewed and discussed progress with various agencies and knowledgeable people. The findings were shared with major national stakeholders and various international development partners and actors.

#### Organisation of the report

This report uses the same format that previous progress reports did. This introductory chapter is followed by a chapter which discusses Nepal's development context, its

achievements thus far and the enablers of and challenges to its reaching its MDGs. Each of the following eight chapters then presents an individual goal, including the levels of achievement in its targets and indicators, the factors constraining their implementation, and strategic recommendations to meet the gaps by 2015. The concluding chapter summarises the findings, suggests ways to accelerate progress in the unmet targets, and identifies priority issues to address after 2015. It also draws lessons reflecting on the entire process of MDG articulation and implementation and the impact of this process on Nepal's development thinking, planning and results.

#### Meeting Nepal's Millennium Development Goals

#### **Overview of progress**

Nepal has made significant progress in achieving its MDGs and has received in-

ternational praise for doing so. Considering the difficult context—the decade-long armed conflict, political instability, and preoccupation with major national political agenda, including peace-building, constitution-writing, and state-restructuringthese achievements should be considered remarkable. The majority of health-related MDGs have already been achieved, or are on track to being achieved, except two indicators in MDG 5, the contraceptive prevelance rate and the unmet need for family planing, and one in MDG 6, the proportion of the population with advanced HIV recieving antiretroviral combination therapy (ART). The targets related to poverty and hunger, universal primary education, gender equality and women's empowerment, are also likely to be achieved by 2015, and though the targets concerning environmental sustainability and global partnership are unlikely to be achieved in totality, lessons to facilitate their achievement have been learnt. Table 1 provides a picture of what has been achieved, what is achievable and what is unlikely to be achieved by 2015.

TABLE 1. Nepal's progress towards the MDGs: Status in 2013 at a glance

	Lik	elihood	of achieveme	nt	Status of supportive environment				
Goal	Achieved	likely	potentially likely	Unlikely	Lack of data	Strong	Fair	Weak but improving	Weak
1 Eradicate extreme poverty and hunger		1							
1 (a) Reduce extreme poverty by half						√			
1 (b) Full and productive employment for all			√				√		
1 (c) Reduce extreme hunger		√			√				
2 Achieve universal primary education			√		√				
3 Gender equality and empowerment of women				<b>√</b>			1		
4 Reduce child mortality		√				√			
5 Improve maternal health		√				√			
5 (a) Reduce maternal mortality by three quarters	√					√			
5 (b) Achieve universal access to reproductive health		√				√			
6 Combat HIV/AIDS , malaria, and TB		√				√			
6 (a) Have halted and begun to reverse the spread of HIV/AIDS		1				√			
6 (b) Achieve universal access to treatment for HIV/AIDS		1				√			
6 (c) Have halted and begun to reverse the incidence of malaria and other diseases	√					√			

	Likelihood of achievement			Status of supportive environment				t	
7. Ensure environmental sustainability									
7 (a) Reverse loss of forest		√					√		
7 (b) Reduce Biodiversity Loss		√					√		
7 (c) Halve proportion of people without sanitation			√				<b>V</b>		
7 (d) Improve lives of slum dwellers					√				√

#### Nepal post-1990

MDGs were adopted as guiding principles for development following the movement toward pluralism, openness and liberalism that swept the world in the 1990s. In Nepal, too, that decade was a time of great socio-political change: it abandoned its state-controlled political system and opted for an open, pluralistic space in which the private sector was free to operate in the economic sphere and civil society and non-government organisations (NGOs) were free to engage in development activities. The private sector's share in the national economy increased significantly, and the number of civil society organizations increased several hundred-fold. Soon, civil society was the major resource mobiliser at the grassroots level and the state had been relegated to the role of facilitator and policy reformer. The new responsibility of the state was to create a suitable environment for other actors to engage in activities for which it had once assumed sole responsibility. The liberal environment allowed the latent energy of all national actors to be released and activated.

Between 1990 and 2000 the governance system was guided by the principle of decentralisation, and local governments became major agents of change and service providers at the local level, assuming responsibilities which had once belonged to central agencies. The participation of local people in the development process increased drastically and democracy deepened. The economy grew by over six percent per year, the number of

NGOs which mobilised resources to communities increased, poverty decreased, inequality narrowed, and exemplary achievements were made in the social sector. Nepal performed well, as community organisations flourished and people all over the country joined grassroots organisations of one form or another. With non-state actors playing a major catalytic role, a wave of social awareness and engagement engulfed the nation.

Progress was constrained and even blocked by the decade-long armed conflict waged by the Communist Party of Nepal (Maoist). Despite the negative impact the conflict had, the country's achievement of its MDGs was commendable due, in part, to the expansion of its infrastructure, primarily roads, airports, telecommunications, irrigation, as well as to other development activities that were implemented before the war broke out. The total length of roads of all categories, fair-weather and year-round, paved and unpaved, increased from less than 3000 km to almost 100,000 km. Every village development committee (VDC) has telephone service, and it is expected that within the next five years, all Nepali people will have a mobile phone. These developments were made possible with the active participation of the private sector and close cooperation with international donors and development partners.

The current level of achievement in development in general and of MDGs in particular is, to a large extent, attributable to the development policies associated with the reintroduction of multi-party de-

mocracy in 1990. It is this development context which helps explain how Nepal succeeded in reducing poverty almost 2.5 percent per year, slashing maternal mortality by more than two-thirds, and increasing enrollment at the primary level to almost 100 percent despite the fact that economic growth hovered at 3.5–4 percent and that a fierce civil war was being waged. Clearly, the momentum of change following the 1990 people's revolution has sustained and pushed the country far.

### Aiming for prosperity and equity

Nepal is currently passing through a period of political transition that began when an armistice was signed by the major political parties in power and the rebels in 2006 and has lasted longer than expected. As agreed by the warring parties, a constituent assembly elected directly by the people was to write a new constitution and restructure the state in line with the spirit of the popular movement of 1990. Seven years later, the government, having failed to agree on a constitution despite two extensions, is still in limbo. More positively, a second election for a new constituent assembly has been scheduled for November 19, 2013, and the rebel forces have been disarmed, dismantled and rehabilitated.

Only after a new, truly democratic constitution is written and representatives are elected at all levels of government will the country see a real exit from the prevailing political uncertainty. This process may take another two to three years, exactly the time period in which it must consolidate those of its MDGs which it has already achieved or is likely to achieve and accelerate its progress in those that lag behind. Since the current three-year national development plan (2013/14–2016/17) covers the period for achieving the MDGs and beyond, the plan should provide for achieving all the remaining

targets as well as facilitate the framing of a new MDG plan for the next 15 years. This plan should foster more growth and equity than what was achieved in the last 15 years.

The post-2015 MDGs for Nepal should aim to strengthen democratic institutions, consolidate the 2015 MDG achievements, and bolster economic development in order to achieve prosperity, peace and equity. There needs to be greater economic growth and employment, better quality education and health services for all, more social security, better and more efficient governance, and greater participatory development. State policies must enable the private sector to assume a greater role in the economy, provide open space for non-government actors to act freely, and increase the decentralization of governance. Economic growth in Asia as a whole, but especially that in India and China, should be closely watched and exploited.

#### Nepal's MDG process

Nepal's experience in achieving its MDGs is a lesson in innovation and action in conflict, peace and political instability. The lessons it learned are unique and valuable, not just to its own future development thinking but to that of other countries. Nepal's effort to achieve its MDGs passed through three distinct contexts: stability, conflict, and transition to stability again. On the whole, Nepal moved forward with its main objective: to protect past achievements and keep pushing to achieve its 2015 MDGs.

When the Millennium Declaration was made in September 2000, Nepal was a fully functioning democracy propelled by the great energy released by the open and liberal polity initiated in 1990. At that time, under normal conditions, Nepal prepared the Tenth Plan to serve as its first medium-term strategy for reaching its MDGs. However, before the plan

had been completely implemented the country was plunged deeper into armed conflict. The conflict was between the existing system based on plurality, individual freedom and multiparty politics and a rebel force that wanted to change to the one-party rule of a centralised and controlled system. This conflict seriously challenged the fundamental tenets of the MDGs, including freedom, equality, tolerance, and solidarity. It resulted in the deaths of nearly 15,000 people; the demolition of physical infrastructure worth millions: and, very significantly, the destruction of the local-level governance system, tenuously established over a decade.

Despite the challenging context, Nepal remained on track to achieve its MDGs, largely due to its policy-level commitment to economic and political reform, particularly in terms of decentralisation, selective targeting of programmes, and engagement of multifarious actors. The NPC, the apex body for national development and resource planning, adopted the MDGs as its planning framework for guiding the entire national development process. Its medium-term (three- and five-year) national development plans, therefore, link with the MDGs.

These plans got support in a variety of ways, including the fact that both sector aland local-level plans (those of districts, villages and municipalities) were also aligned with the MDGs. The Tenth Plan, was framed solely to target poverty, MDG 1. It also introduced a separate monitoring mechanism, the Poverty Monitoring and Analysis System. Other new tools and techniques were also used to monitor progress and achievements. To coordinate this monitoring and resource allocation, the government adopted a sector-wide approach in the health and education sector, and later in the rural infrastructure sector. To ensure that there would be resources for top-priority sector-level projects, the Medium Expenditure Framework and Result-Based Management Framework were used. New institutional mechanisms were created to overcome limitations in capacity and regulatory bottlenecks. Several outreach programmes were introduced to assist the country to achieve its MDGs on time.

The Poverty Alleviation Fund was created to overcome the difficulty of reaching out to and providing resources directly to communities, and the National Development Volunteer Services was created to hire young volunteers to fill the gaps in human resource in remote areas. The mobilisation of social groups played a vital role in maintaining and building on past achievements. The savings-and-credit groups created at the community level through various programmes such as the Local Governance Programme were crucial in sustaining the development process, as were neutral and minimally vulnerable development partners, including UN agencies and some bilateral organisations.

To bridge the increasing gap between the state and common people, the state gave support to voluntary organisations, NGOs, and community-based organisations to provide services and carry out development work. During the conflict, the main concern of the government was to protect past achievements and keep the pace of progress going at a decent speed. In the initial stages of the conflict, it introduced geographically targeted programmes. After the Comprehensive Peace Agreement was signed in 2006, the TYIP was written with the aim of addressing the issues of reconstruction and rehabilitation. Its overarching goal was to re-establish people's confidence in the state, which had been displaced physically and psychologically, especially from people living in remote areas. It also focused on the rehabilitation of internally displaced people and the reintegration of conflict-affected people and combatants into society.

The attempt of Nepal's first elected con-

stituent assembly to draft a new constitution failed, so the task will be turned over to the second assembly due to be elected on November 19, 2013. This assembly will also adopt a federal structure and governance system. The challenge for the new assembly is to craft a constitution that is democratic and ensures the fundamental tenets of the MDGs—freedom, equality, tolerance, and solidarity. The transitional context is likely to remain until 2015.

So that it would be able to achieve its unmet MDGs, Nepal conducted a needs assessment in 2010. This document identified the gaps in resources and capacities that needed to be addressed in order to continue, and even accelerate, progress toward meeting those MDGs. The acceleration framework the government later adopted sought to speed up its progress in achieving those goals which need special attention.



# ERADICATE EXTREME POVERTY AND HUNGER

**TARGET 1A.** Between 1990 and 2015, halve the proportion of people whose income is less than one dollar a day

Indicator	1990	2000	2005	2010	2013	2015 target
1.1. Percentage of population below USD 1 per day (ppp value)	33.54	n/a	24.1	19.7	16.4ª	17
1.2. Percentage of population below national poverty line	42	38	31	25.4	23.82	21
1.3. Poverty gap ratio at USD 1 per day (%)	n/a	11.75	7.55	6.1	5.60 <sup>b</sup>	
1.4. Share of bottom quintile in national consumption		7.6	6.2	-	8.3°	

#### Source:

#### Status and trends

Nepal has made significant progress in meeting MDG 1, halving the proportion of people whose income is less than a dollar a day: the rate dropped from 33.5 percent in 1990 to 19.7 percent in 2010 and then fell again to 16.4 percent in 2013. With this rapid rate of change, about one percent per year, the 17 percent target was achieved ahead of schedule.

Similar achievements have been made in the other three indicators. The proportion of the population below the national poverty line was 42 percent in 1990 and 25.4 percent in 2010. Accord-

ing to the most recent estimate, the poverty rate is 23.82 percent (CBS, 2013). The average rate of decline in poverty between 2005 and 2013 has been about one percent annually. If this rate is sustained, the 21 percent target for 2015 can be easily achieved within the next two years.

The poverty gap ratio narrowed from USD 11.75 percent in 2000 to 7.55 percent in 2005 and then, at a considerably slower rate of change, to 5.60 percent in 2010. The share of the bottom quintile in national consumption increased from 7.6 percent in 2000 to 8.3 percent in 2010 after dropping to 6.2 percent in 2005.

a NPC (2011)

b"Poverty gap" (2010).

chttp://iresearch.worldbank.org/PovcalNet/index.htm (2010).

#### Trends and inequalities

Poverty in Nepal has declined at and imprasive rate. An unpublished World Bank report suggest that the annual rate of decline in Nepal's poverty level increased from 1.5 percent between 1996 and 2004 to 2.5 percent between 2004 and 2011 (WB, 2013). The annual rate of decline continued even during the ten-year armed conflict between 1996 and 2006. However, disparities remain, with poverty rates in rural areas, where over 80 percent of the population lives, higher than those in urban areas. In addition, the rates of poverty incidence for some social groups, such as Dalits and janajati, are much higher than the national average.

# Social and geographic variations

Though the poverty rate at the national level has declined, there are many geographic and demographic disparities. In relative terms, the positions of some social groups, particularly Dalits and, to

a lesser extent, Terai *janajati*, have worsened. The Far-West lags behind other regions: not only is its poverty gap greater than the national average, but that difference widened from 15 to 23 percent. The central development region, whose poverty incidence was already less than the national average further, improved its position to lead the nation by 10 percentage points.

A recent report summarises the geographic dynamism of poverty in Nepal: "though prosperity is spreading in Nepal, it has a hard time moving West and climbing Hills. Poverty concentration in the East and Central has declined while it increased in the rest [sic]" (NPC & WB, 2013). Both urban and rural poverty continued to decline but in urban area it declined at a slower pace than in rural area. The absolute number of urban poor continues to climb by 18,000 annually. The widespread decline in mean consumption among most occupational categories suggests a systemic problem; perhaps the creeping costs of living and weak formal job creation are eroding the advantages of urbanisation (NPC & WB, 2013).



#### Factors contributing to the difference in rates of change

Foreign employment and remittances account for a considerable portion of the poverty reduction among those households that send members abroad to work, but not among the population at large and among households with internal migrants. The incidence of poverty would jump from 19.3 percent to 35.3 percent if remittances were cut off. Because poverty reduction is dependent on international labour markets, whether it can be sustained is doubtful.

#### **Constraints and challenges**

Economic growth and redistribution is the key to poverty reduction. The MDG progress report of 2010 outlined several bottlenecks stymieing the implementation of poverty-reducing policies, including the political transition from conflict to peace and the effects of that transition on employment generation as well as on the domestic and foreign investment environments. In 2010, the report argued, the sense of insecurity, especially with regard to property rights and law and order, was adversely affecting investment. Since the state lacked the ability to enforce laws, the private sector remained a largely skeptical observer. Three years later, the situation is somewhat better. Investment in the service sector, especially in tourism, has grown and there is more attention to and interest in investing in the agricultural sector. Despite the global economic downturn, remittance flows have increased.

That said, political instability and the resultant inability of the government to release a full national development budget decreased the willingness of both the private and public sectors to invest. As a result, economic growth has been low. For the past three years, people have anticipated a constituent assembly election

that never happened; the associated uncertainty has hampered the entire development process. The lack of elected local-level government representatives and the correlated increase in the misuse of funds have hampered wealth redistribution efforts and undermined social security, while the lack of a dependable supply of energy has hampered industrial growth.

# Addressing constraints and challenges

The above constraints are likely to persist until there is a stable and effective government, which can provide a sense of security to investors. The government must convince potential investors that it can effectively control both corruption and leakage if it is to create an environment conducive to investment. The fear of extortion in the name of political "donations," prevalent among the private business sector and general public, should be checked.

Those sectors that are least vulnerable to extortion, labour unrest, political instability, and other constraints should be identified and given priority. At the same time, corruption and extortion should be effectively controlled and fear minimized.

Dependence on remittance for reducing poverty and increasing national income should be gradually phased out by exploiting the skills, capital and knowledge which returnees bring back. Success stories should be documented, disseminated, and replicated.

The absence of elected representatives at the local and national levels has negatively affected the quality of development, especially at the local level. Addressing development governance issues at the local level before the national election will be a major challenge. At the national level, ensuring the timely release of annual budgets will be a challenge.

**TARGET 1B.** Achieve full and productive employment and decent work for all, including women and youth

Growth rate of GDP per person employed	1990	2000	2005	2010	2013	2015 target
Growth rate of GDP per person employed	n/a	n/a	1.4	1.59	n/a	
Employment to population ratio	n/a	n/a	n/a	81.73 a	82.20 b	
Proportion of employed people living below USD 1 per day	n/a	n/a	n/a	22	n/a	17
Proportion of own account and contributing family workers in total employment	n/a	83.1	n/a	81.9	n/a	

#### Sources:

<sup>a</sup>CBS (2008). (for people aged 15 years and above).

#### Status and trends

The employment-to-population ratio provides some insight into the employment situation in Nepal. According to annual labour force surveys, that ratio was 81.7 in 2008 and 82.2 in 2010. These figures are based on economically active population above 15 years. Though previous progress reports have not emphasised this, the employment rate has been growing slowly with some fluctuations over the past two decades. It was highest in 1999, at 84.5 percent, and lowest in 1996, at 81.6 percent.

The rate of employment of youths (15-24-year-olds) was 73.60 percent in 2010. It ranged from a high of 81.0 percent in 1991 to a low of 73.5 percent in 2007. The rate of employment of the population aged 15 and above was 78.80 percent in 2010. Its highest value over the past 19 years was 80.8 percent and its lowest, 77.6 percent, rates recorded in 1999 and 1996 respectively.

The 2015 target for the proportion of employed people living below USD 1 per day, 17 percent, is likely to be achieved, but target 1B as a whole, full and productive employment and decent work for all, including women and young people, is unlikely to be achieved.

#### **Constraints and challenges**

According to the MDGNA 2010, the unfavourable investment environment both at the macro and micro levels has stymied growth in production, as have Nepal's difficult terrain, inadequate resources, inadequate social protection strategies and programmes, weak coordination among the ministries and departments of various sectors, and the increased threat of climate change combined with insufficient adaptive capacity to cope with that change (NPC, 2010c).

Labour migration abroad is a critical determinant of the employment situation in the country. Every year about 400,000 youth enter the labour market; some find work abroad. Annually about 300,000 Nepali, men, women, and youths of different age groups, migrate to different countries in the Middle East, the Gulf, and Southeast Asia and to India, creating a complex, and often problematic, socio-economic situation. On the positive side, this migrant population finds employment and sends money home, thereby contributing to poverty reduction efforts and sustaining the national economy. Eventually, when they return, they bring new skills and technology. On the negative side, this process drains the most productive labour force from the

b"Employment" (2011).

country, weakening its productive base, especially that in agriculture. In the last decade, a large number of women have also migrated, a phenomenon, which has had a visible effect on the size, type, and function of families, including on the education of children and the caring of older people.

# Addressing contraints and challenges

MDGNA 2010 suggested certain programmatic interventions to address the bottlenecks to achieving full and productive employment and decent work for all, including women and youth. These include continued implementation of targeted income-generating and employment programs along with increasing the participation of target groups in decision-making. It also sug-

gested reinforcing empowerment programmes through skills enhancement and vocational training, training for productive employment, community-based entrepreneurship, micro-credit and micro-enterprise development programmes, cooperative establishment and promotion, and employment guarantee schemes. New programmes targeting senior citizens, widows, single women, the differently-abled, youths and children and other vulnerable groups with a focus on food sovereignty, security and quality were also reccomended.

MDGNA 2010 also suggested promoting urban-rural linkages; regularising and strengthening labour markets, particularly in the informal sector; promoting investment in labour-intensive and large-scale-employment-generating projects; reorienting local markets; encouraging



the private sector; introducing housing programmes; adopting high-value crops; providing demand-based training for foreign employment and the productive use of remittance; and promoting indigenous production skills with marketing potential.

While the above efforts are well intended, they rest on assumptions regarding the investment environment, the role of the private sector, and the engagement of civil society organisations that may not be met. Unless the state creates an environment conducive to the full engagement of non-state actors in the nation's economic activities, it will not be possible to achieve the full employment target. If the state keeps making promises and relying on state programmes for employment it is likely to overburden the public sector and eventually cause it to collapse. The

current challenge for Nepal is to establish a balance between distribution and growth. Popular programmes are attractive for the short-term political gains they yield, but in the long term they are likely to be detrimental to the national economy. In the context of Nepal's political transition and intense competition among the political forces unrealistic promises are likely to be made. This competition is likely to persist for the next decade until national political institutions capable of balancing out the forces pulling the economy in different directions have been put in place.

To reduce poverty, Nepal's current population structure, specifically the fact that there is a high proportion of people of working age, should be capitalised on, primarily by increasing employment opportunities.



TARGET 1C. Between 1990 and 2015 halve the proportion of hungry people

Indicator	1990	2000	2005	2010	2013a	2015 Target
Prevalence of underweight children aged 6-59 months	57	53	43	38.6	28.8	29
Proportion of population below minimum level of dietary energy consumption	49	47	40	22.5	15.7	25
Proportion of stunted children aged 6-59 months	57	53	NA	49	40.5	30

Source: <sup>a</sup>MoHP, New Era, & ICF International (2011).

#### Status and trends

Nepal has already achieved its MDG 1C target for reducing hunger. The target for the prevalence of underweight children (29 percent) has, at the current level of 28.8 percent, essentially been met, as has its target for the population below minimum dietary consumption, which at 15.7 percent, is much below the targeted 25 percent (MoHP, New Era, & ICF International, 2011).

In general, the nutritional status of children in Nepal has improved over the last decade. The proportion of stunted<sup>2</sup> children declined from 57 percent in 2001 to 41 percent in 2011 and that of underweight<sup>3</sup> children, from 43 to 29 percent in the same period. The proportion of wasted<sup>4</sup> children declined, too, but only slightly, from 13 percent in 2006 to 11 percent in 2011 (MoHP, New Era, & ICF International, 2011). Among the 11 per-

cent who are wasted, 3 percent are severely wasted. Forty-one percent of children under five are short for their age, and 16 percent are severely stunted.

Nepal has made good progress in reducing the percentage of stunted of children, but, at 41 percent, it is still much above its target of 30. Although the target is achievable if the almost 3 percent annual average decrease that was achieved between 2010 and 2013 continues, a more focused effort is needed to achieve an 11 percent decrease in two-and-a half years.

#### Trends and inequalities

The nutritional status of children is not equal across different age groups. It declines after age 9-11 months, when 91 percent of children are given complementary foods.

<sup>2</sup> Children whose height-for-age is below minus two standard deviations from the median of the reference population are considered stunted or short for their age. Stunting is the outcome of failure to receive adequate nutrition over an extended period and is also affected by recurrent or chronic illness.

<sup>3</sup> Children whose weight-for-age is below minus two standard deviations from the median of the reference population are considered underweight. This measure reflects the effects of both acute and chronic under-nutrition. Nearly three in ten children (29 percent) are underweight and 8 percent are severely underweight.

<sup>4</sup> Children whose weight-for-height is below minus two standard deviations from the median of the reference population are considered wasted or thin. Wasting represents the failure to receive adequate nutrition in the period immediately before the survey, and typically is the result of recent episodes of illness, especially diarrhea, or of a rapid deterioration in food supplies.

#### Difference in rate of change

For all indicators, the rate of change was greater between 2010 and 2013 than between 2000 and 2010 (Table 1.1).

Target 1.1. Rates of change

Indicator	Annual average 2000-10 (%)	Annual average 2010-13 (5)
Prevalence of underweight children aged 6-59 months	1.4	3.2
Proportion of population below minimum level of dietary energy consumption	1.4	2.4
Proportion of stunted children aged 6-59 months	0.4	2.0

#### **Geographic variations**

Malnutrition rates vary geographically. There are more stunted children in rural areas (42 percent) than in urban ones (27 percent). Rates of stunting vary across

ecological regions, too: the respective rates in the mountains, hills and Terai are 53, 42 and 37 percent. With respect to development regions, the Mid-West has the highest rate (50 percent) and the East and the West, the lowest (37 percent) (Table 1.2).

Table 1.2. Nutritional status of children by development region

Development region	Stunted (%)	Underweight (%)	Wasted (%)
Eastern	37	25	10
Central	38	30	12
Western	37	23	10
Mid-Western	50	37	11
Far-Western	46	33	11

Source: MoHP, New Era, & ICF International, 2011

There are striking differences in nutritional status by place of residence and mother's education. For all three indicators, rural children are much more likely than urban children to be nutritionally disadvantaged. Malnutrition rates in the mountains are higher than average: half are stunted and more than one-third are underweight. Children whose mothers have no education are more likely to be

stunted, wasted, or underweight than children whose mothers have attended school (MoHP, New Era, & ICF International, 2011).

#### **Constraints and challenges**

Plans and strategies to make adequate and nutritious food available are constrained by various factors relating to production, supply and distribution of food along with food processing and social behavior. The fact that Nepal produces less food than its internal demand is less a threat to food availability than is the lack of a dependable transport network connecting markets and production. Both the porous border with India and India's food policies affect the local availability of food staples, including rice, wheat, maize, and pulses. It is also important to remember that just the production of food in any given area is no guarantee that that food will be accessible to the people who live in that area -it might very well be priced beyond their reach. The prices of petroleum products have a significant affect on the prices of food, usually driving them upward.

# Addressing constraints and challenges

MDGNA 2010 suggests that there must be continued effort to increase crop and livestock production; expand irrigation facilities; provide improved seeds, fertilizser, and technology; and improve agriculture extension. In addition, there is a need to protect plants, improve fishery and beekeeping, construct large-scale irrigation projects and introduce and promote appropriate technology in order to sustain the agriculture growth. Other important interventions include creating market-production linkages and off-farm employment, enabling cooperatives to finance farm-based and off-farm incomegenerating activities and develop clustered settlements.



# UNIVERSAL PRIMARY EDUCATION

**TARGET 2:** Ensure that children everywhere, boys and girls alike, will complete their primary schooling by 2015

Indicator	1990	2000 a1	2005 a2	2010 a3	2013 a4	2015 target
Net enrolment rate in primary education	64.0ª	81.0	84.2	93.7	95.3	100
Proportion of pupils enrolled in grade one that reach grade five	38.0 <sup>b</sup>	63	79.1	77.9	84.2	100
Literacy rate of 15–24 year olds	49.6 °	70.1 d	79.4e	86.5 <sup>f</sup>	88.6 <sup>g</sup>	100

#### Sources:

<sup>a</sup> Ministry of Education Sports (MoES) (1990-1999).

#### Status and trends

Nepal has made excellent progress in primary education: from just 64 percent in 1990, the net enrolment rate (NER) at the primary level reached 95.3 percent in 2013. It is difficult, however, to predict what will happen in the next two-and-a-half years as growth in the

NER has fluctuated slightly among various social groups over the last 10 years. Progress in the NER has been supported by the increased enrolment of children in the bottom consumption quintile, from 51 percent in 2003/04 to 76.2 percent in 2010/11, an increase of almost 50 percent in just seven years (CBS, 2004; CBS, 2011).

<sup>&</sup>lt;sup>a1</sup>MoES (2000).

<sup>&</sup>lt;sup>a2</sup>MoES (2005).

<sup>&</sup>lt;sup>a3</sup>MoES (2009-10).

<sup>&</sup>lt;sup>a4</sup> Ministry of Education (MoE) (2012-13).

<sup>&</sup>lt;sup>b</sup>NPC (2001).

<sup>&#</sup>x27;NPC (1991).

<sup>&</sup>lt;sup>d</sup>NPC (2002). <sup>e</sup>MoHP (2007).

fCBS (2009).

GBS (2009). 9MoHP (2011).

In comparison with their shares in the total population, the representation of girls (50.5 percent), *janajati* (35.4 percent) and Dalit (20.3 percent) children at

the primary level is encouraging (Table 1). Differently-abled children constitute about one percent of primary enrolment (MOE, 2012-13).

**Table: 1** Gender parity index and proportions of *janajati* and Dalit children in primary education

Indicator	2005	2010	2013°	
Gender parity index	0.93ª	0.99 b	0.99	
Janjati students (%)	35.6 <sup>d</sup>	38.6 <sup>d</sup>	35.4	
Dalit students (%)	21.5 <sup>d</sup>	20.0 <sup>d</sup>	20.3	

Sources:

aMoES (2005).

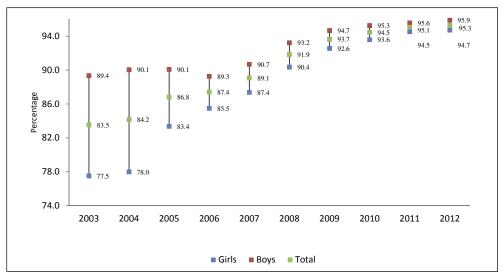
<sup>b</sup>MoES (2009-10).

'MoE (2012-13).

While the NER of girls has been lower than that of boys for the last a decade, the gap has narrowed over the years and in 2012 was just slightly below that of boys (Figure 1). Notably, the rate of increase

was greater among girls than boys. The increase in both the overall NER and that of girls suggests the success of policy interventions like Welcome-to-School campaigns and scholarships for girls.

Figure 1. Trends in NER by gender



Source: MoE (2012-13).

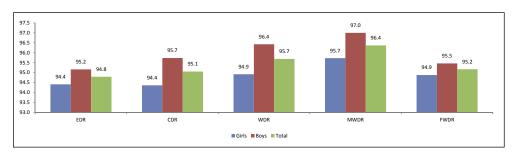
Two key concerns remain. First, 4.7 percent of all school-age children are still out of school. According to NLSS 2010/11, almost one-fourth (23.8 percent) of children from the bottom consumption quintile

(22.7 percent of girls and 25.2 percent of boys) do not go to school (CBS, 2011). Second, NER varies by development region and, within development regions, by gender, with girls' NERs trailing those of boys

in all regions. The NER was the highest in the mid-western development region (96.4 percent) and the least in the eastern (94.8 percent), but girls trail the furthest behind in the West (by 1.5 percent) and the least in the East (0.8 percent) (Figure

2). Government programmes such as child grants, midday meals, employment, and special scholarships for *kamlari* might account for the mid-west's having the highest NER, but no research has been conducted to prove this claim yet.

Figure 2. Net enrolment rate by development region and gender



Source: MoE (2012/13)

As long as it maintains the current level of efforts and interventions, Nepal is likely to achieve its MDG for this indicator.

To ensure the universalisation of primary education, students who enroll must stay in school through the fifth grade.

Nepal's survival rate has fluctuated somewhat, dropping from 79.1 percent in 2005 to 77.9 percent in 2010, but has since recovered, reaching 84.2 percent in 2013. Even so, the high rates of attrition and repetition pose a serious threat to Nepal's potential to achieve the second



indicator for MDG 2. The dropout rate is 7.7 percent in grade one and 6 percent in grade five; the repetition rates for the same grades are 19.9 percent and 5.3 percent respectively (MoE, 2012-13). Despite the good progress Nepal has made, it is highly unlikely that, in just in two-and-a-half years, the survival rate will increase another 15.8 percent from its current rate of 84.2 percent to meet the target of 100 percent.

The survival rate may have increased due to the government's emphasis on early childhood development (ECD) and pre-primary education (PPE). Encouragingly, the gross enrolment rate at this level reached 73.7 percent in 2013. The number of students enrolled in grade one with ECD/PPE experience increased from 36.2 percent (35.9 percent of girls and 36.5 percent of boys) in 2008 (DoE, 2008) to 55.6 percent (55.9 percent of girls and 55.2 percent of boys) in 2013 (MoE, 2012-13)<sup>5</sup>.

The transition rate of students from primary to lower secondary level has gradually improved, too, growing to 87.3 percent in 2011 (DoE, 2011) from 83.4 percent in 2007 (DoE, 2008).

Of the total population five years of age and older, 65.9 percent, 75.1 percent of males and 57.4 percent of females, is literate (CBS, 2012). Though there has been consistent progress in literacy, there are great disparities across social groups (MOHP et al., 2007; UNDP, 2009).

The adult literacy rate, that for the population aged 15 and older, is much less than the national average, at just 56.5 percent, and the gap between males (71.6 percent) and females (44.5 percent) is wider. This gender disparity is present and significant in all development regions (Figure 4) though the literacy rate of those 6 years and above vary considerably, from a low of 57.3 percent in the Central region to a high of 65.9 percent in the West-

80.0 76.1 75.0 73.8 73.0 72.2 70.0 65.9 65.0 62.4 61 0 59.0 60.0 57.6 53.5 55.0 52.2 50.0 45.0 40.0 35.0 30.0 Central Far West Eastern Mid West ■ Male ■ Female ■ Total

**Figure 3.** Disparities in literacy of age group 6 years and above by development region and gender

Source: CBS (2011).

 $<sup>^{5}</sup>$  "Approach Paper to the Thirteen Plan (2013/14–2015/16)" gives a slightly lower figure - 54 percent (NPC, 2013).

ern region (CBS, 2011). There are disparities by ecological region, urban-rural residence and consumption quintile, too.

The youth literacy rate, that for 15-24-yearolds, is much higher, it was 88.6 percent in 2011 (MoHP, NewEra, & ICF International., 2011), up from 86.5 percent in 2008 (CBS, 2009). However, the analysis by age groups, gender and development regions present a very interesting and encouraging situation.

Irrespective of gender and development regions, almost all the population in the age group 10-14 years is literate. Both the gender and regional variation is very insignificant, except for relatively small literacy in the central region. Literacy of age group 15-19 years is also very high and impressive. Although gender variation is high in all regions, the regional variation is insignificant except for the central region. The finding in the age group 20-24 years is, however, different from the previous two age groups, where the difference between that in western region and others is high. The gender variation among all the regions is also very high but that of mid-and far-western is exceptionally high.

**Table: 2** Literacy rates of Adults and Youth aged 10-24 years by development regions, 2011

Region	10-14 years			15-19 years			20-24years		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Eastern	95.5	93.3	94.4	96.7	94.0	95.3	93.7	80.1	85.4
Central	87.1	86.4	86.8	91.9	85.2	88.4	87.0	68.0	75.9
Western	98.2	95.9	97.1	98.2	92.3	95.2	94.8	89.2	91.7
Mid Western	97.1	96.5	96.8	97.8	91.8	94.6	98.6	77.0	85.6
Far Western	97.9	94.1	96.1	98.6	89.5	93.5	97.9	70.9	81.0

Source: MoHP (2012).



Two important findings can be inferred from these findings and might have policy and programmatic implications: i) the literacy achievements, in general, gets lower with increase in age across all the development regions and gender; ii) literacy situation in the central development region is lowest among all regions; and ii), high gender gap in age group 20-24 years in mid- and far western regions indicates, educational programs might have been effective in the school aged children but educational and literacy programs might not have been so in these regions.

Given that the gap in literacy rates needs to be reduced by a further 11.4 percent, unless it can increase the current growth rate, Nepal is unlikely to meet its 2015 MDG.

To sum up, since Nepal is likely to achieve only one of its three indicators, NER, and is unlikely to achieve the other two, those for survival and literacy rates, it is only potentially likely to achieve its goal for primary education.

#### Supportive environment

Progress in the NER was probably aided by the government's emphasis on ECD programmes. The number of ECD centres reached 34,174 in 2013, up from 23,659 in 2008, an almost 50 percent increase in five years. The number of PPE classes in institutional (private) schools is also on the rise; reaching 4,907 in 2013, up one-third from 3,636 in 2008 (MoE 2012-13).

Primary school networking, both in terms of number and coverage, has also significantly increased. The number grew about 15 percent from 29,835 in 2008 to 34,298 in 2013 (MoE 2012-13) and today 94.7 percent of households are within a 30-minute walk to the nearest primary school (CBS, 2011) compared to 91.4 percent in 2003/04 (CBS, 2004). Although the quality of the education pro-

vided is another issue altogether, these data make it clear that access to education has increased and suggest that access contributes to increasing primary level enrolment.

The government's strong commitment to free and compulsory primary education is reflected in several policy documents. Its three main thrusts are enhancing equitable access, improving quality and enhancing management efficiency (SSRP, 2009-15; MoE 2009). To achieve these aims, it will (i) increase schooling facilities, (ii) expand opportunities for transitioning to higher grades; (iii) reduce the direct and indirect costs of schooling through free basic education and targeted incentives; (iv) recruit more female teachers and teachers from marginalised communities; (v) train teachers on demand to build their competencies, (vi) strengthen the capacity of school management committees (SMCs) and other school managers; and (vii) mandate social and financial audits to promote accountability at all levels of education.

To promote equitable access to schooling, a school mapping exercise is being carried out with the aim of upgrading or merging schools as required. Access increased significantly in 2007, when the government first adopted the policies of mainstreaming religious educational institutions such as gurukul, gompa and madarasha and introducing alternative schooling; these policies are still in force. Building the capacity of SMCs and transferring the responsibility for management to local communities has also increased access, as has the preparation of guidelines to minimal enabling conditions measured in terms of the numbers of (subject) teachers, textbooks and toilets, and amounts of learning materials and classroom space. Schools identified as falling short of the guidelines receive additional support.

Education continues to be free up to the eighth grade and a pilot provision for

gradually making primary education compulsory has been developed. Since free education entails, at the least, eliminating the direct costs of schooling, such as textbooks and admission, tuition and exam fees girls, the differently-abled, children of Dalit, janajati, and kamaiya families, and those who live in remote mountain areas continue to receive scholarships. Targeted groups continue to receive incentives such as midday meals, cooking oil and take-home rations, which have contributed greatly to improving access and survival rates at the primary level. The positive correlation between incentives and both enrolment and retention is well documented (Acharya & Luitel, 2006; NORAD, 2009; WFP, 2006).

Since teachers are crucial to children's learning, the government is focusing on teacher management, in part by enforcing a teacher redeployment policy designed to equitably distribute teachers to ecological and development regions and rural and urban areas.

Female, Dalit and *janajati* teachers comprise 41.5, 4.5 and 29.4 percent of the total primary-level teachers respectively (MoE, 2012-13). The Teacher Service Commission is now, for the first time since the introduction of a reservation policy in 2013, engaged in recruiting permanent teachers. The changes to these proportions have yet to be published though it is expected that they will increase, making the teaching force more inclusive and, it is hoped, having a positive effect on students' enrolment, participation and learning.

To improve the efficiency and quality of primary education, the government has implemented several policy measures, including the promotion of ECD/PPE and child-friendly school and classroom environments and the capacity-building of head teachers and members SMCs, which have proved helpful in increaseing both enrolment and retention

rates. The Education Act of 2001 entrusted SMCs with school management tasks. The quality of education has been improved by creating child-friendly and student-centered teaching-learning environments, increasing gender and cultural sensitisation, and providing demand-driven teacher training. Each year, almost one-third of working teachers receive demand-driven training and 94.4 percent of primary teachers have participated at some point in their career (MoE, 2012-13). There are, however, concerns about training outcomes, in particular whether or not the knowledge and skills taught are actually practiced in the classroom.

Other positive developments are the regular revising of curricula in line with the National Curriculum Framework, the strengthening of continuous assessment, support for mother-tongue, multi-lingual and transitional language education, and regular support to teachers and schools through resource centers and school supervisors. Though the positive effects of these interventions have been observed in general, there is a need for carrying out evidence-based documentation of specific achievements.

Both the government and non-governmental sectors have made several efforts to increase literacy. The government intends to continue its literacy campaigns, covering all 75 districts, so that it can achieve 95 percent literacy among 15-24-year-olds within the period of the Thirteenth Plan (NPC, 2013). During this same period, by 2015/16, it also intends to achieve 100 percent NER. It has continued to get support from local bodies, NGOs and civil society in spreading literacy to targeted groups and areas. Literacy programmes are often linked to income-generating activities and community mobilisation for better effect.

The ongoing SSRP (2009–2015) consolidates the above interventions and aims

to improve educational access, equity and quality in line with the spirit of the UN's Education-for-All initiative and Nepal's MDGs. It focuses on meeting the diverse learning needs of children in different sociocultural contexts.

The private and non-government sectors have also created an enabling environment for education, as has the remittance-led increase in the economic wellbeing of households. NLSS 2010/11 shows that four percent of remittances are spent on education (CBS, 2011), though whether it is simply to access education, to improve its quality or boths is unknown.

#### **Constraints and challenges**

Despite the impressive increase in the number and coverage of primary facilities and ECD/PPE centres, children living in remote, poverty-stricken areas with extremely low rates of literacy often cannot access schools. Increasing the availability of schools in these areas is of the utmost importance because school availability is directly correlated to enrolment and indirectly correlated with retention and learning.

The lack of sufficient reliable and consistent data to measure progress continues to be a major challenge. The data reported by the DoE does not always tally with that reported by other sources such as the NLSS, NDHS, and censuses. For example, NLSS-III reports that the NER was 78.4 percent in 2011 and the MoE that it was 95.3 percent in the FY 2012-13; one year cannot account for such a large discrepancy. The reliability of MoE data is also called into question by its inflated figures, limited use of standard procedures, lack of data validation and data cleaning, all of which need improvement. The DoE's use of two different sources enrolment data from schools and population from CBS publications—needs improvement.

The flash reporting system and the education information management system are improvements, but some systemic issues demand urgent attention.

The lack of consistency in the way the MoE reports on a number of indicators, including enrolment, participation, and survival rates, from year to year makes it difficult to compare data and analyse trends. In any case, the exiting indicators do not measure the quality of the instructional process or the degree of student achievement. The recent initiation of a national assessment of the achievement of students in the third and fifth grades, however, will reveal student performance by various categories, thereby providing better insight into the situation and enabling the government to plan accordingly.

At least 4.7 percent of primary school-age children, over 800,000 in total, are still out of school. The low primary-level net attendance ratio, just 68.8 percent (67.2 percent for boys and 70.2 for girls), also underscores the fact that achievements in the NER alone are not enough (CBS, 2011). Another concern is that the existing system does not disaggregate the agegroup enrolment of students by categories such as social group, disability and place of residence. This shortcoming is particularly limiting when it comes to assessing out-of-school children-finding out who they are and where they liveso that plans to see them in school can be formulated and operationalised.

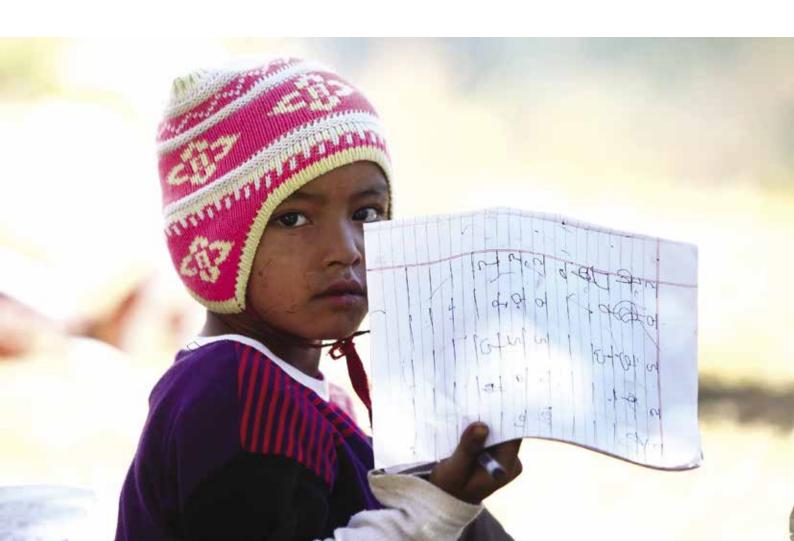
Enrolling and retaining the children from HIV/AIDS-affected and *kamaiya* families, street children, differently-abled children and those at risk in the school system has been equally difficult. Despite the continuation of successful government interventions like the piloting of compulsory education and the provision of scholarships and other incentives, the fact that so many children never enroll in, or drop out of, school indicate either that these schemes are

inadequate in terms of coverage and amount of incentive, or that they are not implemented properly. The existing scholarship programme—its implementation mechanism and the value of scholarships—needs to be amended to address the indirect costs of schooling to marginalised families.

The MoE and NLSS both agree the number of primary schools expanded significantly, but it is not possible to claim that, as a result, accessibility also increased across the country; on the contrary, there are stil areas where the level of accessibility is inadequate. Inadequate road access and river-crossing infrastructure, for example, makes some schools, especially those in the High Hills and Himalayas, but even those in the Terai, temporarily inaccessible. Flooding can prevent students from attending school for weeks. In the Terai, overcrowded classrooms decrease instructional effectiveness and the resultant poor quality of education serves as a disincentive to attendance. Cultural practices and gender discrimination, including the low social status of girls, early marriage and the segregation of females during menstruation (*chaupadi*), are another major barrier to girls' education in many areas (Pradhan et al., 2008).

The quality of educational infrastructure and learning environments is highly correlated with the political and economic capacities and level of literacy of communities and with access to roads and physical distance from district headquarters. Schools located in poor areas are lest likely to provide a positive teaching-learning environment because teachers are less qualified (K.C. 2009) and because community participation is poor. In addition, schools in poor communities have poor infrastructure (Norad, 2009).

Despite the government's efforts to improve the quality of instruction in the early grades, these grades are usually taught by the least qualified teachers and by those who do not speak the local languages. Despite the provisions of the Interim Constitution and the TYP (2010/13), mother-tongue instruction in the lower grades is the exception rather



than the rule. In addition, learning materials are inadequate (school managers tend to spend their limited funds on physical infrastructure, usually buildings or classrooms) and infrastructure poor. Together these adverse factors have a negative multiplier effect which degrades children's learning. The ultimate result is high rates of attrition and repetition rates in the early grades. Poor quality education and high opportunity costs also contribute to the large number of dropouts (CBS, 2011).

Ensuring that curricula and textbooks are available on time remains a challenge. Although the National Curriculum Framework is adequate, its implementation is not, and often teachers are not prepared to implement it effectively (Norad, 2009). Last year, two weeks after the beginning of the new academic session, 28 percent of primary students still did not have textbooks (MoE, 2012-13). This is an annual problem greatly hampering the instructional process. Mother-tongue textbooks are rarely used, partly because of parental resistance but mostly because teachers lack the capacity and willingness to do so. They are neither qualified nor trained (Norad, 2009; Acharya et al., 2009) and both they and the schools they teach in lack incentives. The low quality of teaching is corroborated by a recent assessment of the learning achievements of fifth graders which shows that the mean scores in Nepali, English and mathematics are below 50 percent. Social studies was the only exception (Full Bright Consultancy & CHIRAG, 2008). The fact that performance was equally poor across all regions, suggests that poor teaching-learning environments are a nationwide problem.

Although the proportion of first graders with ECD/PPE experience increased to 55.6 percent in 2013 (MoE, 2012/13), grade one has the highest dropout rate and poor retention has been a concern for the last decade. The high rate of repetition indicates both the wastage of resources and

the inefficiency of the education system. The mean number of years of schooling among adults is 8.1 years. Disparities exist between rural (7.5 years) and urban (9.6 years) areas and among development regions but not between men (8.2 years) and women (8.0 years) (CBS, 2011). The main challenge is the lower mean of schooling in rural areas.

The great concerns regarding improving the literacy rate are (i) how literacy programmes can be made relevant to the poor, (ii) how they can be effectively delivered, (iii) how the participants in literacy programmes can be engaged in income-generating activities, and (iv) how to ensure they continue to pursue post-literacy activities.

### Addressing constraints and challenges

The government has to work beyond the Education-for-All and 2015 MDG deadline in order to address three challenges: i) reaching the unreached, ii) sustaining the current achievements, and iii) improving the quality of education.

The MoE should use both short- and longterm strategies. In the short term, it must improve the quality of its data by enforcing regulatory measures such as datachecking, making head teachers accountable for reported data, imposing penalties for exaggerated reporting and providing incentives to encourage reliable reporting. In the long run, certain systemic improvements are required. These include revisiting the existing education information management system and introducing third-party involvement in surveys and studies, including a periodic Nepal education survey which assesses technical education and vocational training in addition to school education.

Identifying the status and location of out-of-school children and the reasons they are out of school is crucial. Conducting a comprehensive mapping study would help the government provide targeted support to address this problem and to design suitable programmes to get children in school and to keep them there. Making good-quality ECD services available to all; creating child-friendly, teaching-learning-conducive school environments; designing and implementing appropriate incentives; enabling teachers to respond to the needs of diverse learners; enforcing the continuous assessment of students and developing the capacity of SMCs and other school managers and members of school management committees are some areas requiring attention. To universalise primary education both supply- and demand-side interventions are required. More exploration of the needs of the marginalised is needed, as evidence demonstrates that they need funds to meet both the direct and the indirect costs of schooling. Government bodies and NGOs must establish intersectoral coordination and create synergy in order to see good-quality primary education made available to all.

Identifying out-of-school children in urban areas, including internally displaced, working, and street children may be possible through public-private partnerships or the effective mobilisation of civil society. The government must partner with private schools and I/NGOs to educate children from marginalised groups. The planned school mapping exercise should be accelerated and should encompass both community and institutional (private) schools simultaneously, as their catchment areas may overlap. The existing structure and design of incentives should be revisited with a view toward making it more relevant to, and appropriate for, the neediest of households.

Efforts to address the high rates of attrition and repetition must be enhanced, not just in the early grades but also in the higher grades. The government must strengthen its ongoing efforts to create child-friendly and teaching-learning-conducive environments. All schools must be equipped with the minimal enabling conditions, including toilets for girls. An adequate provision to enhance teachers' motivation has to be put in place, as does focused and result-based monitoring and supervision. Establishing partnerships with communities is beneficial in transferring the management of community schools to locally elected SMCs, so this effort should be expanded and accelerated with focused interventions. Coordination among government agencies is required to avoid duplication and develop an integrated system. A mechanism which makes concerned staff accountable towards the system, particularly to the MIS, should be developed.

The design, delivery and implementation of the literacy programme must be re-engineered and the possibilities of partnering with local agencies and public schools to run it effectively considered. Literacy-linked income-generating activities and post-literacy activities also need emphasis. It should be made mandatory for all short-term skill training and enterprise development initiatives implemented by governmental, private and non-governmental sectors to include literacy sessions as experience has demonstrated that such an approach is highly effective.

According to MDGNA 2010, an estimated NRs. 344 billion is required to attain the 2015 target for primary education. Just NRs. 167 billion is available, so another NRs. 177 billion must be raised (NPC & UNDP 2011).



## GENDER EQUALITY AND EMPOWERMENT OF WOMEN

**TARGET 3:** Eliminate gender disparity in primary and secondary education preferably by 2005 and in all levels of education by no later than 2015

Indicator	1990	2000	2005	2010	2013	2015
Ratio of girls to boys in primary education	0.56ª	0.79ª	0.90 <sup>b</sup>	1.0°	1.02c	1.0
Ratio of girls to boys in secondary education	0.43ª	0.70ª	0.84 <sup>b</sup>	0.93°	0.99с	1.0
Ratio of women to men in tertiary education	0.32 <sup>d</sup>	0.28 <sup>d1</sup>	0.50e	0.63 <sup>f</sup>	0.71 <sup>m</sup>	1.0
Ratio of literate women aged 15-24 years to literate men aged 15-24 years	0.48 <sup>g</sup>	n/a	0.73 <sup>h</sup>	0.83 <sup>i</sup>	0.85 <sup>j</sup>	1.0
Share of women in wage employment in the non-agricultural sector (%)	18.9 <sup>9</sup>	17.7 <sup>92</sup>	n/a	19.9 <sup>i</sup>	44.8 <sup>j</sup>	-
Proportion of seats held by women in the national parliament	3.4ª	5.8ª	n/a	32.8	n/a	-

Sources:	fUGC (2007).
<sup>a</sup> NPC & UNCT (2005).	<sup>9</sup> CBS (2003);
<sup>b</sup> DoE (2005).	<sup>g1</sup> CBS (1991)
<sup>c</sup> DoE (2009);	<sup>g2</sup> CBS (2001)
<sup>c1</sup> DOE 2013 Flash Report (2013).	hCBS (2004).
dUNSD (2005) (based on UNESCO global database);	iCBS (2009).
<sup>d1</sup> UNSD (2001).	<sup>j</sup> CBS (2011).
°UGC (2005).	<sup>m</sup> MoE (2012)

#### Status and trends

The ratio of girls to boys in primary education (grades one to five) has improved significantly since 1990, so much so that the target set for 2015 has already been achieved. The ratio for gross enrolment now stands at 1.04 and the ratio for net enrolment at 1.01 (DoE, 2013). However, there are some disparities by social group and geographic location. The gross enrolment ratio for Dalits (1.03) is slight-

ly lower than both that for *janajati* (1.02) and the national average (DoE, 2013).

With a ratio of women to men of 0.91 at the higher-secondary level and 0.71 at the tertiary level (MoE, 2012), it will be difficult to achieve parity at these levels by 2015. Of the total enrolment, girls' enrolment constitutes 50.5, 50.9 and 49.7 percent at the primary, lower-secondary and secondary levels respectively (DoE, 2013). At the Bachelor's level, women constitute

a still smaller proportion, just 44.17 percent of the total students, and that proportion drops drastically to just 11.42 percent at the Ph.D. level (MoE, 2012).

The literacy rate of youths (15-24-yearolds) has increased significantly, up about two percentage points for males and four for females. The national average is 85.11 percent, with 79.36 percent of female and 92.97 percent of male youths now literate (CBS, 2011). There is a notable gap between the literacy rates of urban and rural youths, particularly among females. In urban areas, 96.30 percent of males and 91.05 percent of females are literate, whereas in rural areas is the corresponding rates are 91.89 percent and 76.26 percent. Clearly, the educational attainment of females is still lower than that of males though the gender gap has narrowed in recent years. In the 15-49-year age group, more than 40 percent of females versus just 14 percent of men have never been to school (MoHP, NewEra & ICF International, 2011).

Economic status is correlated with educational status such that the lower the economic status, the lower the educational attainment. For example, women in the top wealth quintile are more likely to attain a higher level of education than those in the lower wealth quintiles.

The share of women's wage employment in the non-agricultural sector has more than doubled, from just under 19.9 percent in 2009 to 44.8 percent in 2011. Women often work for no monetary remuneration; indeed, 74.8 percent of the unpaid family labour force is female (CBS, 2009), a fact suggesting that a large number of economically active women have no access to economic resources. The difference in male and female wages in most of the non-formal labour market suggests either that women are not paid the same as men for the same job or that there are more women in low-paying jobs, which are often those that require little academic qualification or skill.

Although women are still mostly employed in traditional sectors, their participation in non-traditional sectors such as the armed forces and overseas employment has increased rapidly in re-



cent years. In the FY 2006/07, women's share of the total foreign labour force was just 0.19 percent. By July 2012, this figure had increased 30-fold to 5.96 percent (DoFE, 2013). The numbers of unreported cases of women's labour migration and of cases of migration to restricted countries, whether knowingly or unknowingly, have also increased. In consequence, the exploitation and abuse of Nepali women employees in host countries as well as in Nepal by employment agencies and brokers has reportedly grown. There is also a recognised link between foreign employment and the trafficking of women.

Women's employment in the service sector, particularly education, increased significantly between 2005 and 2013. The proportion of female teachers, particularly at the primary and secondary levels, is gradually increasing. At the higher-secondary (ninth and tenth grade) and tertiary levels, however, the gap is still

huge, and there are large regional disparities. The overall gender parity indexes (GPIs) for the total number of teachers at the primary (first to fifth grades), lower-secondary (sixth to eighth grades), and basic (first to eighth grades) levels are 0.71, 0.38, and 0.62 respectively (DoE, 2013). The GPIs at institutional schools rates are considerably higher: 1.10, 0.77, and 1.01 for these same three levels.

Disparities in geography, ethnicity, and gender are significant in the teaching profession. The GPI for primary teachers ranges from 1.80 in Kathmandu Valley to 0.32 in the mountains of the mid-western development region (DoE, 2013). The proportions of *janajati* and Dalit teachers are small and less than their proportions of the total population, with *janajati* teachers making up less than 29.4 and 17.3 percent of the primary and secondary teaching forces respectively and Dalit teachers making up less than five percent at both levels (DoE 2013).

Table 1. Employment in the governmental sector

S.N.	Service group	Male (no.)	Female (no.)	Total (no.)	Male (%)	Female (%)
1	Civil service <sup>a</sup>	57,931	6,148	64,079	90.41	9.59
	Gazette class	12,793	1,083	13,831	92.5	7.5
	Non-gazette class	25,860	3,593	29,453	87.8	12.2
	Classless	19,278	1,517	20,795	92.7	7.3
2	Health service <sup>a</sup>					
	Officer-level	898	187	1,085	82.76	17.24
	Non-officer-level	8,852	5,761	14,613	60.58	39.42
3	Nepal Army <sup>b</sup>	96,699	1936	98,635	98.03	1.97
	Officer-level	5,193	305	5,498	94.46	5.54
	Non-officer-level	91,506	1,631	93,137	98.25	1.75
4	Nepal Police <sup>c</sup>	57,599	3,572	61,171	94.16	5.84
	Gazette rank	1,719	80	1,799	95.55	4.45
	Non-gazette rank	55,960	3,492	59,452	94.13	5.87
5	Armed Force Police	32,384	1,131	33,515	96.63	3.37
	Gazette rank	1,329	29	1,358	97.86	2.14
	Non-gazette rank	31,055	1,102	32,157	96.57	3.43

#### Sources:

<sup>a</sup>Department of Civil Personnel Records (2013 May).

<sup>b</sup>Ministry Of Defense (2013, June).

'Nepalpolice.gov.np (2013, June).

The proportions of female teachers in all types of schools are 41.5, 27.4, and 17.3 percent at the primary, lower-secondary level and secondary levels respectively. At community schools, their proportions are even smaller, just 37.8, 20.6, and 13.8 percent respectively for the same three levels (DoE, 2013).

A major indicator of women's empowerment is their participation in the political domain. The Interim Constitution of 2007 requires that political parties ensure that women constitute at least one-third of their total representation in parliament. The constituent assembly, in office between 2008 and May 2012, conprised 32.8 percent women. The share of women in government and semi-government employment has also increased; currently, women comprise approximately 15 percent of the workforce (MoF).

The proportion of women in the core civil service is low, just 9.59 percent (MoGA, 2013), and it is even lower in decision-making positions. In May 2013, of the total female government employees, 58.88, 24.67 and 16.88 percent were in

non-gazette (supportive, non-decisionmaking), classless, and gazette positions respectively. Women's representation in all gazette classes increased seven-fold between 2001 and 2013, from 2.4 to 16.88 percent, with 0.01, 0.24, 2.0, and 14.62 percent falling in special, firstclass, in Gazette second-class, and thirdclass categories respectively. Clearly, the affirmative action policy adopted by the government in 2008 has encouraged young women to join the civil service. The adoption of a policy of reservation for women in the security forces (Nepal Army, Nepal Police and Nepal Armed Force Police) communicated the same positive message. The representation of women in the judiciary also increased during the reporting period. There is now one woman judge in the Supreme Court, 10 in appellate courts, and one in district courts (Administration Section, Supreme Court, 2013).

While the data presented above demonstrates that at least the first two indicators, gender parity in primary and secondary education, are likely to be achieved by 2015 and that women are



more economically and politically empowered, education and empowerment, while crucial to women's development, are not sufficient conditions for their wellbeing. In Nepal, gender-based violence poses a serious threat to the advances Nepali women have made.

Violence against women and harmful traditional practices such as child marriage, jhuma (enforced nunhood), deuki (the offering of a girl child to a god and committing her to lifelong service at a temple), and commercial sex work in the Badi community, are barriers to promoting gender equality and women's empowerment. The prevalence of women's lifetime experience of physical and/ or sexual spousal violence is 28 percent among currently married women; of them, 14 percent experienced physical violence; five, sexual violence; and nine, both forms of violence (MoHP, New Era, & ICF International, 2011). Spousal violence is higher among women who earn cash income than those who do not (MoHP, NewEra, UKaid, & USAID, 2013). Nearly half of all women respondents said that they had experienced violence and three-quarters said they had faced spousal violence. Of the latter group, 69 percent reported having psychological problems and six percent had attempted suicide (Office of the Prime Minister and Cabinet of Ministers, 2012).

#### Supportive environment

Though no new policy intervention of note has been introduced since the 2010 MDG progress report was released, both state and non-state mechanisms working in the sector have continued to promote women's participation and representation in all walks of life. In 2012, the government issued national guidelines for the service and protection of survivors of human trafficking as well as for the operation of rehabilitation centres. The

following year saw the promulgation of regulations governing a security fund for single women and the establishment of one-stop crisis centres in 15 districts, both key steps in protecting vulnerable females.

Always, the government uses its MDGs as its benchmark while making plans and policies. The paradigm shift in policymaking in the socio-economic sector which Nepal adopted after the 2007 election to the constituent assembly, a shift from a welfare to a rights-based approach, has contributed significantly to the promotion of gender equality and women's empowerment, as has the introduction of reservations for women, ethnic groups, Madheshi, Dalit, differently-abled people and people from remote regions in the state's recruitments mechanism has also foster an environment conducive to women's development, in part by creating a "demonstration effect" in the private sector. In fact, women's participation in the private sector has increased remarkably. The 30 percent discount on registration fees for women who register their ownership of either land or home has increased the proportion of property in women's names.

#### **Constraints and challenges**

The strong legacy of Nepal's traditional feudal mentality and patriarchal society tends to limit gender equality to policy papers. Eliminating discriminatory social and cultural practices poses a considerable challenge to fostering gender equality in practice. The MDGNA 2010 recommended that Nepal implement several activities to accelerate achievement of MDG 3 and that it take steps to avert a projected resource gap of NRs. 15 billion between 2011 and 2015. In fact, the greatest obstacle to bettering gender equality is Nepal's resource gap, both financial and human. Though the government did consider MDG 3 during

the planning process, it did not make even a single resource allocation specifically aimed at attaining it. The total annual budget of the Ministry of Women, Children and Social Welfare, the nation's apex body to look after women, children, the elderly, and the differently-abled, was just NRs. 920 million, or 0.22 percent of the total budget, in 2012/13. Furthermore, women development officers and their subordinates are heavily overloaded since they must assume responsibility for any new government programme for any of the four target groups of this ministry without additional financial or human resources or provision of technical skills. The early marriage of girls and the distance to schools continue to stymie the achievement of gender parity in tertiary education.

Since the topography of Nepal continues to pose a serious constraint to attempts to increase girls' participation in higher education, there should be incentives and supports for girls to continue their education in the nearest suitable location.

During this reporting period, the prolonged political transition adversely affected the budgeting process in terms of the prioritisation of investments and the preparation and release of the budget itself, which adversely affected nearly all governmental plans and programmes important to enhancing gender equality and women's empowerment.

The reporting of cases of gender-based violence increased over the period, but remedies from state mechanisms were either very slow or ineffective. A state of impunity prevails as those with a vested interest, including local people and politicians, commonly hide gender-based violence, often by subjecting survivors to various undue pressures not to file a legal complaint for fear of damaging the prestige of the concerned family or community. Police stations are reluctant to register first-information reports of gender-based violence due to undue local and political pressures. With the increase in the number of Nepali women employed abroad, reports of gender-based violence, includ-



ing brutal physical assault, rape and even murder are also increasing. Nepal's Foreign Employment Welfare Fund has not been used to support survivors upon their return. The lack of compensatory measures for severe violations of women's human rights is not only a travesty of justice but an obstacle to the empowerment and development of women.

## Addressing constraints and challenges

Overall, Nepal's progress toward achieving MDG 3, promoting gender equality and women's empowerment, is fair. The

government should continue its effective gender-focused programmes and substantially increase the financial and human resources it allocates to them. Persistent attention to policies and programmes is required to maintain gender parity at the primary and secondary level of education and to achieve it at the tertiary level. Educational policies should consider both the finances and the security of girl students entering the tertiary level, perhaps introducing measures to provide scholarships to the ultra-poor and soft loans to the poor. To increase the ratio of literate women to men, a literacy programme with incentives for participation is recommended.



# REDUCE CHILD MORTALITY

TARGET 4: Reduce the under-five mortality rate by two-thirds between 1990 and 2015

Indicator	1990	2000 <sup>b</sup>	2005	2013 <sup>d</sup>	2015 target
Infant mortality rate (per 1,000 live births)	108ª	64	48°	46 (2011)	36
Under-five mortality rate (per 1,000 live births)	162ª	91	61°	54 (2011)	54
Proportion of one-year-old children immunised against measles (%)	42 <sup>d</sup>	71	85°	88 (2011)	>90

<sup>a</sup>Ministry of Health (MoH), New Era, & Macro International Inc. (1996).

<sup>b</sup>MoH, New Era, & Macro International Inc. (2001).

<sup>c</sup>MoHP, New Era, & Macro International Inc. (2006).

<sup>d</sup>MoHP, New Era and ICF International (2011).

Note: The data collected by the mid-term survey in 2010 was not taken into account as that survey was conducted only in rural Nepal and its results cannot be generalised to the nation as a whole. Moreover, officials at the Ministry of Health and Population (MoHP) argued that it was not consistent with the general trend.

#### Status and trends

Childhood mortality declined markedly over the past 20 years, between 1990 and 2011: the infant mortality rate (IMR) declined from 108 to 46 and the under-five child mortality rate (U5MR) from 162 to 54 per 1,000 live births. The rates of decline of both were significant, 57.4 and 66.6 percent for the IMR and U5MR respectively, but still one in 22 Nepali children dies before the age of one and one in 19 before he or she turns five.

The neonatal mortality rate (NMR), is proving more stubborn. While NMR did drop considerably between 2001 and 2006, from 43 to 33 per 1,000, it did not decline any further between 2006 and 2011. The rate of decrease of the IMR also slowed in the later period, its progress stymied by the stagnant NMR. Nonetheless, Nepal is on track to achieve its MDGs related to child health before 2015. In fact, the target for the U5MR, 54 per 1,000 live births, was achieved in 2011 and a new target, 38, set. The IMR target was also lowered, to 32 [Nepal Health Sector Programme-II (NHSP-II), 2010-2015], although just reaching the original target of 36 will require increasing the rate of decline.

There is considerable variation in mortality by both ecological and development region. Both IMR and U5MR are highest in the mountains (at 73 and 87 per 1,000 live births respectively) and lowest in the hills (50 and 58 respectively). The corresponding rates in the Terai are 53 and 62. The IMR and the U5MR are highest in the mid-western and far-western development regions, at 58 and 73 and 65 and 82 respectively. Irrespective of ecological and development region, childhood mortality is higher in rural areas, where IMR is 55 and U5MR 64, than in urban ones, where the corresponding rates are 38 and 45 (MoHP, New Era, & Macro International Inc., 2011).

Nepal carried out nation-wide measles campaigns in 2005 and 2008, and saw a corresponding dramatic decrease in the number of measles-like outbreaks (from 127 to 39) and laboratory-confirmed measles cases (from 2857 to 6). The proportion of one-year-old children immunised against measles through routine immunisation has more than doubled in the last two decades, from 42 percent in 1990 to 88 percent in 2011, and is on track to

meet the 2015 target of more than 90 percent. Even so, progress is not uniform. On the contrary, disparities in access to measles vaccinations in terms of gender, consumption quintiles, rural-urban settings, and ecological and development regions continue to persist. In addition, the rate of coverage increased more between 2001 and 2005 than between 2006 and 2010.

It is a matter of concern that the NMR did not decrease between 2006 and 2010 and that the IMR, in part because of the leveling off of the NMR, decreased only marginally. In the next two years, it is the NMR that needs the most attention.

Certain populations also need more focused targeting if the overall child mortality rate is to be reduced. The decline in IMR, U5MR and NMR between NHDS 2001-2005 and NHDS 2006-2010 was more marked among women with secondary or higher level of education than among those with no education and in urban than rural area. In this same five-year period, the IMR declined in all ecological and development regions except the hill and the eastern development



regions, where it increased from 47 to 50 and from 45 to 47 deaths per 1,000 births respectively (MoHP, et al. 2013b).

In terms of immunisation, too, certain regions and populations will require more attention. While the western and far-western development regions have already reached the target of more than 90 percent immunisation, the other three developments regions—the central, and mid-western-have not, nor have the Terai, whose rate of immunisation (85 percent) lags behind that of the hills and mountains (both 90 percent), or rural areas, whose rate (87.6 percent) trails that in urban areas (91.8 percent). The children of women with no education are also far behind: just 79.6 percent have been vaccinated compared to 90 percent of the children of women in other education groups. In terms of gender, boys are slightly more likely than girls to be immunised against measles (89.7 percent versus 86.3 percent) (MoHP et al, 2013a).

#### Supportive environment

To reduce child mortality it is important to vaccinate every child, especially the marginalised and hard-to-reach. Under the comprehensive and multi-year National Immunisation Programme (NIP), access to routine vaccination against vaccine-preventable diseases (VPD) has improved in both villages and municipalities. This programme vaccinates children free of cost.

NHSP-II has set a target of immunising 90 percent of children under 12 months of age against DPT-HepB-HiB and measles. Its goals include (i) delivering routine immunisation services either at fixed sites or during outreach sessions, (ii) strengthening immunisation in municipalities through micro-planning, (iii) conducting supplementary immunisation activities, and (iv) continuing to integrate VPD surveillance. The NHSP-II

has prioritised reaching the unreached, especially in rural areas, and using evidence to inform plans and policies with a focus on equity.

The Community-Based Integrated Management of Childhood Illness (CB-IMCI) programme operates in all 75 districts of the nation, not just in health facilities, but also, through the leadership of female community health volunteers, in communities. CB-IMCI enables children to be diagnosed and treated early and aptly for major child hood diseases.

As proposed in the national neonatal health strategy of 2004, the Community-Based Newborn Care Package (CB-NCP) was implemented in one-third of the total districts in 2010/11. The CB-NCP aims to reduce NMR through the sustained high coverage of effective community-based interventions, including the treatment of sick newborns (aged 0-28 days) at health facilities and in the community.

Neonatal health is now an integral part of Nepal's safe motherhood programme, and provisions have been made to deliver appropriate neonatal care through all health facilities where basic and/or comprehensive emergency obstetric care (BEOC/CEOC) services for pregnant women are available.

#### **Constraints and challenges**

The present rates of decline of Nepal's IMR and U5MR cannot be sustained unless the rate of decline of the NMR is increased. This is a serious concern. The most common causes of neonatal deaths are infection, birth injury, birth asphyxia and low birth weight. While neonatal services are indeed more prevalent at the community level, at health facilities they are neither available nor accessible. Moreover, even in communities, the deprived and disadvantaged are overlooked. The competencies and capacity

of health workers to provide neonatal service need to improve. It is also crucial that disparities in IMR, U5MR and NMR by ecological and development regions and by rural-urban setting be addressed.

Although it has implemented its immunisation programme quite successfully, Nepal must still ensure that coverage exceeds 90 percent in every ecological and development region and every population group. It is possible that coverage may appear to have declined in certain areas because the population targets (determined by early censuses) were higher than the actual populations in those areas (which may have declined through emigration or other forces).

However, it is equally possible that the declines were real as many village-level posts for vaccinators lie vacant and, in municipalities, such a post does not even exist. Seeing that an inadequate number of staff is deputed to administer and maintain the cold chain and administer vaccinations is another challenge.

A multi-sectoral approach to addressing malnutrition, a common underlying cause of child mortality, has been initiated, but its implementation is slower than expected. That said, the biannual vitamin A supplementation programme established in 2002 has had considerable success; in fact, it may be the most successful health intervention ever to have been implemented in Nepal. Twice a year it reaches 3.2 million children, about 90 percent of its target. As a result, vitamin A deficiency among pre-school children is no longer a problem of public health significance, and an estimated 12,000 deaths are averted each year. Nepal's child health programme needs to be linked to this new nutrition programme as well as to the water, sanitation and hygiene; agriculture; and education programmes of other ministries.

At all levels, supervision and monitoring are weak. It is alleged that the CB-IMCI protocol is not being adequately followed and that this lapse calls into question the nation's ability to sustain the quality of



CB-IMCI. Another challenge is that maternal and newborn health services are not currently integrated.

Maintaining the cold chain of a vaccine is yet another concern. The required equipment is old and poorly maintained, thus calling into question the quality of the vaccine administered. Moreover, the severe load shedding imposed by the National Electricity Authority for as much as 5-12 hours daily, and periodic fuel crises interfere with the nation's ability to keep vaccines refrigerated.

## Addressing constraints and challenges

To address the disparity in child health indicators among ecological and development regions as well as between rural and urban settings and among various populations, the nation must identify specific geographic and demographic target groups for administering health interventions.

In all likelihood, proven interventions, such as immunisation, CB-IMCI, vitamin A supplementation, and CB-NCP contributed significantly to the decline in child mortality. Their success is testimony to the strength and vision of the national leadership, which promoted their implementation at the community level and especially among marginalised and excluded groups. Since the CB-NCP is a costly intervention, it should not be expanded from the current 25 districts in which it operates unless there is research-based evidence of its cost effectiveness. The impact of the CB-NCP should be evaluated periodically using an operational research framework and, assuming it continues to have a positive impact, it should be scaled up nationwide and linked with other child health initiatives, including nutrition programmes. To meet the increase

in demand for newborn care services associated with CB-CNP, service delivery at health facilities should be strengthened and service providers capacitated.

To ensure that immunization coverage is complete, the line-listing of children who are not reached by immunisation services should be updated and village development committees (VDCs) should issue a declaration of the number of fully immunised children every year.

The monitoring and supervision of data-reporting for the health information management system should be strengthened, in part by promoting strong leadership and accountability at all levels. To improve the accuracy of immunisation coverage data, it should be recalculated using revised population sizes based on the most current population censuses of local areas.

Inventories of cold-chain equipment and spare parts, vaccine, syringes, and diluents should be updated monthly and monitored daily. Cold-chain equipment should be maintained periodically according to an annual maintenance plan and any necessary replacements demanded and supplied immediately.

Some health facilities, many of which are in mountain districts like Solukhumbu and Rasuwa, where tourist flow is heavy, have installed solar panels to ensure a constant supply of electricity. This initiative should be scaled up across country to ensure that the cold chain is never broken.

Maternal and newborn health services need to be integrated, as do urban vaccination programmes and urban health centres. The government health staff responsible for immunisation need to be reassigned immediately in order to fill vacant posts at all levels. Vaccination programmes in urban areas should be linked with urban health centers.



## IMPROVE MATERNAL HEALTH

TARGET 5A: Reduce maternal mortality by three-quarters between 1990 and 2015

Indicator	1990	2000	2005°	2010	2013	2015 target
Maternal mortality ratio (per 100,000 live births)	850ª	415 <sup>b</sup>	281	229 <sup>d</sup>	170°	213
Proportion of births attended by skilled birth attendant (%)	7 <sup>f</sup>	11 <sup>9</sup>	19	36 <sup>h</sup>	50 <sup>i</sup>	60

#### Sources:

<sup>a</sup>UNDP (1992).

<sup>b</sup>NPC (2002).

MoHP, New Era, & Macro International Inc. (2006).

<sup>d</sup>Family Health Division (FHD) (2009).

\*World Health Organisation (WHO), United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA), & The World Bank (2012).

<sup>f</sup>Nepal Family Health Programme (NFHP) (1995).

<sup>9</sup>MoH, New Era & Macro International Inc. (2001).

hMoHP, New Era & ICF International (2011).

<sup>i</sup>FHD (2013).

#### Status and trends

After experiencing a drastic decline in MMR from 850 maternal deaths per 100,000 live births in 1990 to just 281 in 2006 (MoHP, New Era & ICF International, 2006), Nepal is well on track to meet its targets for MDG 5. In fact, according to the maternal mortality and morbidity study carried out in eight districts in 2009, the MMR was 229 per 100,000 live births, just slightly above the 2015 target of 213; and, in 2012 it was estimated that Nepal's MMR was 170 in 2010, with a range between 100 and 290 (WHO, et al. 2012). These low rates prompted the

government to lower its MMR target to 134 (NHSP-II 2010-2015). To reach the MDG goal, the MMR must continue to decline, but only half as rapidly as it did after 1990, when it declined almost two-thirds in 15 years. Even if the most conservative estimate of MMR-281 per 100,000 live births in 2006 (MoHP, New Era & ICF International, 2006)—is taken into account, Nepal's target of 213 is readily achievable, requiring, as it does, just an additional 25 percent decline over a decade.

The reasons for maternal death in Nepal are like those in many developing countries. Post-partum hemorrhage is the main cause followed by pre-eclamsia/ eclampsia, abortion complications, obstructed labor, other direct causes, and puerperal sepsis (FHD, 2009).

The proportion of women who deliver with the help of a skilled birth attendant (SBA) has increased five-fold in the last two decades, from seven percent in 1990 to 36 percent in 2011. In mid-2013, it had reached 50 percent (FHD, 2013), making it likely Nepal will achieve its goal of 60 percent in 2015.

Although Nepal will likely achieve both its MMR and attended-birth goals, progress has not been uniform. Disparities exist between rural and urban settings, across ecological and development regions, and among social and age groups. In addition, global evidence demonstrates that all pregnancies, even those in the developed world, are at risk, and that complications during pregnancy, delivery and the postnatal period are difficult to predict. Three key delays can result in an obstetric emergency: (i) delays in seeking care, (ii) delays in reaching care, and (iii) delays in receiving care.

The MMR varies considerably by age and social group. It is lowest among women 20-34 years old and highest among those over 35 and under 20 years of age. Muslims (318), Madheshis (307) and Dalits (273) have the highest rates; *janajati* (207), Brahmins/Chhetris (182), and Newars (105), the lowest (FHD, 2009).

The proportion of attended births grew 263 percent in the last eight years, with the rate of growth most considerable recently. In the six years from 2005 to 2011, the percent of children delivered by a SBA almost doubled from 19 to 36, and then, it is further increased to 50 percent in mid-2013. Since 2001, the increase in institutional deliveries has been similarly substantial, especially among adolescents (15-19-year-olds) and youths

(20-24-year-olds). Rates of institutional delivery, do, however, vary across ecological region, rural-urban settings, and educational status (MoHP, et al. 2013a).

#### **Supportive environment**

To reduce the risk of maternal death, Nepal has adopted three major strategies: (i) raising awareness about pregnancy complications, promoting birth preparedness and improving the availability of funds and transport; (ii) encouraging women to give birth free of charge in health facilities; and (iii) expanding 24hour BEOC/CEOC services at selected public health facilities. In 2012, 24-hour delivery service was available at 148 primary health care centres (PHCCs), 533 health posts (HPs), 326 sub-health posts (SHPs) and all hospitals [Department of Health Services (DoHS), 2011]. The number of community-level birthing centers that provide delivery services is increasing. The SBA Policy endorsed in 2006 is being implemented. Almost 4500 SBAs had been trained by mid-2013 [National Health Training Center (NHTC), 2013] and more doctors, nurses, and auxiliary nurse-midwives with obstetric skills have been deployed across the country.

The National Blood Transfusion Policy, which was revised in 2006, ensures that safe blood supplies are available during emergencies. The National Safe Motherhood Plan (2002-2017) was revised in 2006 to ensure that the efforts of various government, non-government, national and international stakeholders involved in safe motherhood and neonatal health programming would be focused and coordinated. This plan envisages that CEOC services will be available in 80 percent of Nepal's 75 districts, that 80 percent of PHCCs will provide BEOC services and that 70 percent of HPs will provide delivery services. In 2012, the number of hospitals that provided CEOC and BEOC services were 99 and 48 respectively (DoHS, 2011). A total of 112 PHCCs had BEOC facilities (DoHS, 2011). In 2013, there were 1,200 birthing centers and 54 districts provided CEOC services (FHD, 2013). Almost all districts offer birth-preparedness packages and conduct maternal and neonatal health activities at the community level.

The Aama Surakchhya Programme (called the Maternity Incentive Scheme in 2005 and the Safe Delivery Incentive Programme in 2006) operates throughout the country, providing free delivery service and financial incentives to mothers and service providers. Women who deliver in a health facility receive a travel allowance: NRs. 1,500, NRs. 1,000, and NRs. 500 in the mountain, hill, and Terai ecological regions respectively. For each baby it delivers, a health facility receives a lump sum to cover the costs of drugs, supplies, and instruments: NRs. 1,000 and NRs. 1,500 for a normal delivery in a facility with fewer and more than 25 beds respectively and NRs. 3,000 and NRs. 7,000 for complicated and caesarean deliveries respectively regardless of the size of facility. This sum includes a small incentive for health workers-NRs. 300. While health workers do not have to claim their incentives individually, health facilities must submit their claims on a periodic basis. The incentive for health workers who deliver a baby at home was reduced from NRs. 300 to NRs. 200 to discourage home delivery.

In 2011, the government introduced the Antenatal Incentive Program as a component of the Aama Surakchhya Programme. Under it, a mother is paid NRs. 400 if she completes four antenatal care (ANC) visits as recommended by the WHO, delivers in a health facility, and attends one post-natal care session. Ambulance services-vehicles and rickshaws in the Terai, and stretchers in the hills and mountains-have been introduced, and, in some extreme cases, air-lift services pro-

vided. A programme to increase demand by increasing equity and access is being implemented in 20 districts.

The implementation of a number of guidelines, strategies, and policies, including ones regarding uterine prolapse, safe abortion, medical abortion, the use of misoprostol to manage post-partum hemorrhage, human resources for safe delivery, and safe motherhood in remote areas, have helped promote maternal and reproductive health.

#### **Constraints and challenges**

Particularly since half of all deliveries still occur at home, it is not always possible for a medical certifier to accurately pinpoint the cause of any given maternal death as being a specific, direct or indirect maternal cause or an accidental or incidental event.

The government's emphasis on providing a continuum of care, from antenatal to delivery to postnatal, does a good job addressing the three delays (delays in seeking, reaching and receiving care) but has proven challenging to implement.

Since health facilities are not always located where populations are concentrated, it may take more than a couple of hours to reach a health facility in the hills and may even take days in the mountains (MoHP, NHSSP, UKaid, 2012). Though the existing policy discourages home deliveries, the role of SBAs is significant, especially as most women do not want a male health worker to attend institutional delivery.

There is not enough staff in many health facilities, with those capable of providing maternity services especially short in supply. The official number of sanctioned posts in any given health facility does not always match with the actual number of health workers present there, and

there are not enough key frontline health workers to provide 24/7 services (MoHP, NHSSP and UKaid, 2012). In remote hill and mountain districts, even SBAs are increasingly in short supply. While, 24/7 delivery service is supposed to be available in designated birthing centers, frequent load shedding and inadequate equipment and drugs mean that service may be merely functional, not top quality. In addition, safety issues make female health workers reluctant to work at night. Ensuring the quality of delivery and other reproductive health services in rural settings, in part by assigning sufficient numbers of appropriately trained health workers, is a challenge.

Reducing disparities regarding access to, and utilisation of, maternal health services among social groups, consumption quintiles, levels of educational achievement, and eco-geographical residence is another challenge. Adolescent pregnancy and motherhood, states associated with early marriage and often leading to medical complications and even death, is another key social and health issue.

Poor referral networks are a major contributory factor in many maternal deaths: women are referred too late to an appropriate health facility, and their transfer is further delayed by the lack of transport and poor communication between health facilities.

## Addressing constraints and challenges

The Aama Surakchhya Programme should be partnered with registered private health care service providers to provide delivery care, thus giving pregnant women the choice of opting for either public or approved commercial and non-profit service providers for free delivery care compensated by the government on a unit-cost basis, with that cost depending upon the complexity of the delivery. While these types of programmes are very effective, Nepal needs to explore options for sustaining these programmes in the absense of donor support.

Special attention should be given to the nutrition of women during pregnancy and lactation. In this endeavour, all forms of gender discrimination, including traditional practices detrimental to women, including *chaupaudi*<sup>7</sup>, which isolates women who have just given birth because they are "impure," must be eliminated.

In deciding where new health facilities are to be constructed, community people should be involved and travel times considered. Guidelines for referral are being prepared; they will need to strengthen the system of referring a patient from the community to a CEOC site, and be well implemented.

Adequate infrastructure, equipment, drugs and skilled human resources should be provided to all health facilities designated as birthing centers so that they are able to provide 24/7 delivery services, both BEOC and CEOC.

The number of SBAs should be increased annually and a midwifery cadre which can ensure that maternal andneonatal health services are available regularly should be developed. Community-level awareness-building about the desirability of institutional and SBA-attended delivery should be conducted.

<sup>7</sup> This practice is widespread in the mid and far-western regions despite its having been banned by the Supreme Court in 2004. The health of new mothers and their babies who are thus isolated is significantly compromised and cases of death are not unheard of.

TARGET 5B: Achieve universal access to reproductive health by 2015

Indicator	1990	2000	2005	2010	2013	2015 target		
Contraceptive prevalence rate (modern methods) (%)	24ª	35.4 <sup>b</sup>	44.2°		43.2 <sup>d</sup>	67		
Adolescent birth rate (births per 1,000 women aged 15-19 years)	NA	110°	98°	NA	81 <sup>d</sup>	70		
Antenatal care coverage:								
At least one visit (%)	NA	48.5 <sup>b</sup>	73.7°	89.9 <sup>f</sup>	85 <sup>9</sup>	100		
At least four visits (%)	NA	14 <sup>b</sup>	29.4°	50.2 <sup>f</sup>	50.1 <sup>d</sup>	80		
Unmet need for family planning (%)	NA	26.5b	24.6°		27 <sup>d</sup>	15		

#### Sources:

Sources:

\*MoH (1992)..

\*MoH, New Era & Macro International Inc. (2001).

\*MoHP, New Era, & Macro International Inc. (2006).

\*MoHP, New Era, & ICF International (2011).

\*MoHP (2010).

\*DoHS (2010).

\*DoHS (2011).

Note: The data collected by the mid-term survey in 2010 on contraception prevalence and the unmet need for family planning was not taken into account as that survey was conducted only in rural Nepal and its results cannot be generalised to the nation as a whole.



#### Status and trends

Nepal considers family planning services as an integral part of maternal health, as they provide a constellation of contraceptive methods and services that reduce fertility, enhance maternal and neonatal health and child survival, reduce maternal deaths, and help balance population growth and socio-economic development. The large reduction in the MMR between 1990 and 2006 has, in part, been attributed to the increased use of family planning services. Under NHSP-II, the government increased its investment in family planning and developed a strong policy framework so that it could meet the MDG targets of 67 percent contraceptive prevalence and 2.5 total fertility by 2015.

At the national level, the contraceptive prevalence rate (CPR) did not increase between 2005 and 2010; in fact, it dropped slightly from 44.2 to 43.2 percent after increasing significantly from 35.4 percent in 2000. The CPR varies greatly by development region, from a high of 51 percent in the central region to a low of 32 percent in the western. In the last two decades, from 1990 to 2011, the CPR almost doubled from 24 percent and the total fertility rate halved, from 5.3 to 2.6.

The unmet need for family planning among married women of reproductive age increased from 24.6 percent in 2005 to 27 percent in 2011 (MoHP, New Era, & Macro International Inc., 2011). In addition, large disparities exist among populations and places of residence. Unmet need is highest among women aged 15-24 years (41.5 percent), women residing in the hills (41 percent), rural women (39.5 percent), and women residing in western development region (47.8 percent) (MoHP et al., 2013a). Unmet need is much higher among couples who do not live together than among couples who do (NFHP, 2010).

It is important that a skilled provider administer ANC in order to monitor

pregnancy and thereby reduce the risk of mortality for mother and baby during pregnancy and delivery. The proportion of pregnant women who made a first ANC visit increased from 48.5 percent in 2000 to 73.7 percent in 2005 to 85 percent in 2011. For complete ANC a pregnant women must make at least four visits, ideally during the fourth, sixth, eighth and ninth months of gestation. While rates increased drastically from 14 percent in 2000 to 29.4 percent in 2005, still in 2011 only about half of the mothers who made a first ANC visit made a fourth.

Between 2005 and 2011 the adolescent birth rate dropped from 98 to 81 per 1,000 person-years of exposure. Fertility among young women is highest in rural areas, the mountain region, and the midand far-western development regions (MoHP, et al. 2013).

The CPR is a key indicator for monitoring and evaluating the nation's family planning programme, but its failure to increase may very well reflect high spousal separation rates, due to the high rates of migration for employment, rather than a failure of the programme. Couples who do not live together for a long period are less likely to use family planning as there is no need for them to do so. According to a recent survey conducted in rural areas, the husbands of one-third of the married women of reproductive age surveyed were away at the time of the survey (NFHP, 2010). The CPR among couples living together was much higher that among couples with an absent husband (NFHP, 2010; MoHP et al., 2013a). Moreover, the CPR among couples living together did increase between 2006 and 2011, suggesting that family planning services do indeed reach couples in need.

Similarly, while there has been no decline in unmet need in the recent past, and even a slight increase from 25 percent in 2006 to 27 percent in 2011 (MoHP, New Era, & Macro International Inc., 2011),

this may not be cause for concern as the data is distorted because, by definition, it includes couples who do not live together and thereby do not need contraception (NFHP, 2010; MoHP et al., 2013). Except in the far-western development region, the unmet need for family planning increased in all areas and among all groups between 2001 and 2011 (MoHP et al., 2013a).

The adolescent birth rate dropped from 110 per 1,000 in 2000 to 81 per 1,000 in 2011. It is lower in urban (42) than rural (87) areas and in the hills (70) than the mountains (99) and Terai (87). By development region, the East (66) and West (75) have lower adolescent birth rates than do the central (88), mid-western (95) and far-western (93) development regions (MoHP et al., 2013a).

The overall rates of full ANC coverage (all four visits) among adolescents (15-19-year-olds) and youths (20-24-year-olds) are similar, at 54 percent and 55 percent respectively, but

these rates vary drastically by education status, measuring 31, 56, 66, and 82 percent for no, primary, secondary, and post-secondary education respectively. Comparing across development regions, it was found that rates were lowest in the central region, just 47 percent. The urban-rural disparity was significant: 50 percent of women nationwide made four ANC visits, but while 72 percent of women in urban areas did, just 48 percent of those in rural areas did. All groups saw an increase in full ANC coverage between 2000 and 2011 (MoHP, et al. 2013a).

#### Supportive environment

The government adopted a national safe abortion policy in 2003 and a guide to adolescent sexual and reproductive health (SRH) in 2007. The former is designed to make good-quality, safe abortion services equally accessible to and affordable for all women, thereby helping to reduce the MMR. The latter promotes the repro-



ductive rights of adolescents by ensuring they will have access to and information about SRH services as well as education about and treatment of sexual abuse. The guide provides directions for providing youth-friendly services in health facilities and building awareness at the local level with the support of schools and community-based organisations located in the community. The SRH guide is part of a national adolescent health and development strategy designed to help the government and its partners to improve access to and the coverage and quality of its health programmes for adolescents. The MoHP has assumed a leadership role in this endeavour and has, in fact, begun to implement a number of activities.

Nepal's family planning programme centres on the concept of a 'managed family' (children by choice, not by chance). It has prioritised increasing the CPR by promoting a wide range of temporary methods, thereby reducing the share permanent sterilisation contributes to the overall rate. The NHSP-II prioritises access to complete ANC as well as universal access to reproductive health, including modern contraception.

#### **Constraints and challenges**

Given that the current CPR is less than 50 percent, achieving the MDG of 67 percent by 2015 will be a major challenge requiring great innovation. It is also unlikely that the rate of unmet need, which is currently about one-quarter, can be reduced to just 15 percent, especially as there has been no decrease for a decade. One step that can aid the achievement of both goals is to link family planning with RHS.

Adolescent pregnancy and motherhood is a major social and health issue that cannot be addressed by the health sector alone. While the rate full ANC coverage is better, it is still too low as the quality of services provided at outreach clinics

located near communities is poor and better services are provided at health facilities located prohibitively far away. In addition, cultural practices such as secluding women during delivery (chaupadi) and requiring that they stay indoors, often unwashed, for 12 days after delivery until a purifying ceremony (nwaran) is performed prevent them from being able to access the delivery, newborn and prenatal care services they need.

## Addressing constraints and challenges

Preventing unwanted pregnancies through good-quality family planning and accessible safe abortion services is the first step towards addressing women's reproductive health needs, There is a need to increase the availability of good-quality contraceptive methods in the communities in which women live. More women now seek safe abortion services. In 2010/11 that number was 95,306 in 487 listed sites (DoHS, 2011). To address the demand, the number of sites, particularly in highly populated areas and in remote areas, should be increased. Since abortion should not be used as an alternative to family planning, post-abortion family planning should be encouraged. There is a need to continue to raise awareness about family planning methods and abortion.

Health facilities at various levels should provide appropriate family planning services both by conducting mobile camps and by regularising round-the-year services at static sites. Moreover, the government should provide the private sector with certain contraceptives, such as condoms, free of cost; private providers will then reciprocate by meeting the costs of service delivery and logistics at certain public health facilities.

Family planning services, which are known to reduce maternal deaths, need

to be made an integral part of maternal health by strengthening integrated family planning services and making them part of RHS in both private and public hospitals. All PHCCs and selected HPs should provide at least five methods of family planning, and all district hospitals should provide all methods of family planning. Linking the successful delivery system of Nepal's Expanded Programme on Immunisation to family planning could potentially increase the coverage of family planning without substantially increasing its cost. The delivery timetable for immunisation programmes allows for family planning messages and/or services to be delivered on multiple occasions at precisely those times when lactational amenorrhea ends, and fertility returns.

All private health facilities must make data on their services available to the

government. In particular, the status and trend of the CPR among youth going abroad to study or work needs to be researched. Programmes focusing on adolescents, such as the establishment of school health information centres and peer education and school health programmes, should be initiated. The proportion of women making four or more ANC visits should be increased by targeting those groups and areas which lag behind. ANC services should be provided closer to communities and their quality improved.

As the proportion of households in which one spouse is living away is very high, data needs to be disaggregated by the current living status of couples in order to accurately calculate the unmet need for family planning among only those couples that live together.







TARGET 6A: Have halted and begun to reverse the spread of HIV/AIDS by 2015

TARGET 6B: Achieve universal access to treatment for HIV/AIDS for all those who need it by 2010

Indicator	1990	2000	2005	2010	2013	2015 target
HIV prevalence among men and women aged 15–24 years (%)	NA	NA	0.15ª	NA	0.12 <sup>b</sup>	Halt and reverse the trend
Condom use at last high-risk sexual encounter: youth 15–24 years	NA	NA	71.2 <sup>a</sup> Males aged 15-49 years	NA	65.8°	-
Percentage of population aged 15—24 years with comprehensive knowledge of HIV/AIDS	NA	NA	35.6ª	NA	29.8°	-
Proportion of population with advanced HIV infection receiving antiretroviral combination therapy (%)	NA	NA	NA	21d	28.7°	80

#### Sources:

<sup>a</sup>National Centre for AIDS and STD Control (NCASC) (2006).

<sup>b</sup>NCASC (2011).

<sup>c</sup>MoHP, New Era & ICF International (2011).

dNCASC Fact Sheet (2009).

eNCASC (2012).

#### Status and trends

HIV infection continues to be confined within certain population groups. It is a 'concentrated epidemic' with people who inject drugs (PWIDs), men who have sex with other men (MSM), and female sex workers (FSWs) at its centre (NCASC, 2012). It is these groups that have the highest rates of infection. In 80 percent of cases, the infection is transmitted sexually. Males who migrate to India for work and visit FSWs while they are there and

clients of sex workers (CSWs) in Nepal are the bridging populations that transmit HIV to low-risk populations, primarily rural women (NCASC, 2012a).

In 2011, there were aproximately 55,626 adults and children living with HIV in Nepal; the overall national HIV prevalence among adults aged 15-49 years was 0.3 percent (DoHS, 2011), a decrease from the rate in 2007 (NCASC, 2012a). The MDG for HIV prevalence among adults aged 15-49 years was achieved in 2011,

when a decline was first noted. For the first time, the NCASC rigorously calculated the current national HIV prevalence among men and women aged 15-24 years and then retrospectively calculated the rate in 2006 to serve as a baseline; the drop from 0.15 to 0.12 percent (NCASC, 2012b) signaled achievement of the goal. To achieve the new target set by NCASC for 2016—a 0.06 prevalence rate among 15-24-year-olds (DoHS, 2011)—the rate of decline will need to be accelerated.

Although nearly 66 percent of youths aged 15-24 used a condom during their last high-risk sexual encounter, only 30 percent of this population has comprehensive knowledge of HIV/AIDS (MoHP, New Era & ICF International, 2011). As of 2012, the estimated number of adult and children with advanced HIV infections was 26,876, of whom only 7,719 (28.7 percent) were receiving ART (NCASC, 2012). It will be very difficult to achieve the MDG goal for ART, 80 percent, by 2015.

While the decline in HIV prevalence between 2006 and 2011 was twice as rapid among the overall population (aged 15-49 years) as among the youth population (aged 15-24 years)-40 percent (0.5 to 0.3 percent) versus 20 percent (0.15 to 0.12 percent) (NCASC, 2006 and 2011)-the global target of halting and reversing the trend among these groups has been met.

In 2011/12, the HIV prevalence rates among the high-risk groups of PWIDs, MSM, FSWs, and CSWs were 6.3, 3.8, 1.7, and 0.0 percent respectively. For all groups but MSM, whose rate doubled from 1.96 percent and is on the rise, these rates represent a drastic decline from 2006. PWID and FSWs saw a five-and a two-fold decrease from 32.71 percent and 3.76 percent respectively while CSWs reduced their 2.06 percent rate to zero (NCASC, 2011 and 2012a).

High-risk populations, including PWID, MSM, FSWs, CSWs, and male labour migrants, account for 58 percent of all adult HIV infections; the remaining 42 percent of the infected comprise low-risk groups (NCASC 2012). The highest rate of infection is among the economically productive and sexual active 25-49-year-old age cohort; the lowest rate was reported among the youngest cohort, those under 15 years. Most HIV-positive children were infected by their mother (DoHS, 2011).

Effective interventions to stop the spread of HIV through preventive measures have been implemented, particularly among key high-risk population groups such as PWID, MSM, FSWs, and CSWs.

Since the HIV epidemic in Nepal is largely driven by unsafe sexual behavior, increasing condom usage should be a mainstay in preventing HIV infection. While it is good that condoms are being used despite the ignorance of their users, there is a clear need to boost awareness, especially given that it decreased 16.3 percent over five years period, from 35.6 percent in 2006 to 29.8 percent in 2011 (MoHP, New Era & ICF International, 2006 and 2011). The effectiveness of prevention programmes which focused on knowledge enhancement needs to be reviewed.

The percent of the population with advanced HIV infection that was receiving ART (NCASC, 2012a) increased by 37 percent to 29 percent over three years, but, at this rate, three years is not enough time for Nepal to reach its 80 percent target.

#### Supportive environment

The GoN has identified HIV and AIDS as a 'priority 1' programme in its national plan and the latest national policy on HIV/AIDS (2010) provides a concrete framework for establishing an AIDS-free society, reducing the impact of HIV, and reducing new infections. That there is high-level political commitment to eliminate HIV/AIDS is revealed in the government's intensifica-

tion of effort in planning, programming and reviewing, which is laid out in the National HIV/AIDS Strategy of 2011-16. This road map for the national response to the epidemic include two critical components, HIV prevention and the treatment, care and support of the infected and affected, as well as cross-cutting strategies devised to support the creation of an enabling environment and the collection of strategic information which will ensure the achievement of programme outcomes.

There are 26 ART centers and 10 ART subcenters spread out across the country and, as provided for in the ART guidelines, treatment consists of providing a combination of three or more drugs (NCASC, 2011) and is administered free of cost for the needy. Of the 13 CD-4 counting centres in Nepal, four have fluorescence-activated cells sorting technology, which speeds the counting process (NCASC, 2011).

To improve the capacity of public and private institutions the government has been supplying all kinds of goods for the prevention, care and treatment of HIV/AIDS. It has adopted an HIV counseling and testing (HCT) guideline and started to provide HCT services free of cost. These services aim to prevent HIV transmission, promote the early uptake of services, and help people to understand their HIV test results. In 2011 there were 196 HCT sites in Nepal. A prevention of mother-to-child transmission (PMTCT) program operates in 23 sites, 20 of which offer pediatric ART (DoHS, 2011).

#### **Constraints and challenges**

Most of the current programmes are supported by external funds, which may not be forthcoming in the future. Providing HIV-prevention services to hard-to-reach populations, especially female ones, is a challenge, as is devising appropriate strategic behavioural change communication interventions targeted at high-risk groups, including migrant workers.

Protecting the general population, especially rural women and their children, from the major risk of being infected with HIV carried by labour migrants returning from India or elsewhere will be a challenge, as will addressing the multiple underlying socio-economic and developmental factors accounting for the spread of the HIV epidemic and ensuring that the remaining 71 percent of the population with advanced HIV infection get the ART they need.

Despite the efforts of the government, it has been difficult to provide equitable access to services; in particular, curative services are not unevenly distributed across Nepal's five development regions. Even in districts where services do exist, the lack of a specific focal person, insufficient staff and poor motivation leave communities underserved. The links between tuberculosis (TB) and HIV interventions and networks are weak and there is no reliable information system for HIV/AIDS.

## Addressing constraints and challenges

To sustain the slow decline in the rate of HIV prevalence among high-risk populations and youths, there is a need to continue conducting effective prevention efforts, especially among new entrants into these populations. At the same time, preventing the transfer of the HIV load to currently low-risk male and female populations will necessitate strengthening interventions which target vulnerable groups.

Access to basic HIV-related services such as voluntary counseling and testing (VCT) for HIV and other sexually transmitted infections (STIs) should be expanded through integration with reproductive health and primary health care (PHC) services and the TB control programme. Effective VCT services should be provided

at every PHCC throughout the country to maximise access. NGOs and community-based organisations can provide services to high-risk groups, labour migrants and populations residing in remote areas, so their role should be expanded in coordination with government line agencies and other stakeholders.

Even though the overall prevalence rate remains well under one percent, major efforts will be needed to stop the epidemic spreading from more-at-risk-populations into the general population. Already, more than one in five reported cases of HIV infection is the female partner of an HIV-positive man, and 96 percent of these are women of child-bearing age. To prevent children from being infected, the PMTCT Programme should be integrated with the Safe Motherhood Programme at all levels.

There needs to be more focus on using condoms to prevent the transmission of

HIV and other STIs. In particular, women need to be empowered to negotiate safe sex and female condoms need to be supplied. The private sectors must become partners in laying the foundations of a long-term, self-sustaining condom market within the country.

Follow-up on people identified as HIV-positive must continue to ensure that they remain in treatment and are not, as too many are, 'lost to follow up' or 'missing'. Early warning indicators should be developed so that those who go missing can be traced easily.

HIV prevention should focus on migrant populations at source, transit and destination sites and efforts should be scaled up at every transit points within the country. The MoHP should assign a focal persons responsible for district-level HIV-related programmes and train other staff members to provide back-up services.

**TARGET 6C:** Have halted and begun to reverse the incidence of malaria and other major diseases by 2015

#### Status and trends (malaria)

Indicator	1990	2000	2005	2010	2013	2015 target
Clinical malaria incidence (per 1,000 people)	NA	NA	3.3ª	5.67 <sup>b</sup>	3.28°	Halt and reverse the trend
Annual parasite incidence (per 1,000 people)	NA	0.55 <sup>d</sup>	0.28ª	0.11b	0.08e	0.06
Death rate associated with malaria (per 100,000 people at risk)	NA	NA	0.05 <sup>f</sup>	0.04 <sup>b</sup>	0.00 <sup>e</sup>	Halt and reverse the trend
Percentage of children under five with fever who are treated with appropriate anti-malarial drugs	NA	NA	3.23 <sup>f</sup>	2.85 <sup>b</sup>	NA	2.5
Percentage of children under five who sleep under a long-lasting insecticide-treated bed net	NA	NA	48.2 <sup>f</sup>	94.2 <sup>9</sup>	96.8 <sup>h</sup>	100

Sources: aDoHS (2007).

<sup>b</sup>DoHS, Epidemiology and Disease Control Division (EDCD) (2010).

DoHS (2011).

<sup>d</sup>DoHS (2001).

\*DoHS, Epidemiology and Disease Control Division (EDCD) (2012a).

'DoHS, Epidemiology and Disease Control Division (EDCD) (2006).

PSI TraC Study conducted in 13 high—risk districts (2010).

<sup>b</sup>DoHS, Epidemiology and Disease Control Division (EDCD) (2012b).

Malaria is almost exclusively confined within 13 high-risk and 18 moderate-risk districts though an additional 34 districts report minimal rates of transmission. Ten

districts have no risk at all (DoHS, 2011). In 2011/12, the overall national clinical malaria incidence (CMI) and annual parasite incidence (API) rates per 1,000

people were 3.28 and 0.08 respectively. The CMI rate has fluctuated over the last five years, while the API rate has declined markedly over the past ten years. In 2010 the death rate associated with malaria per 100,000 people at risk was 0.04 (DoHS, 2011), a 20-percent decline from 0.05 in 2006. It dropped to zero in 2012. About 2.85 percent of children under five a with fever were treated with appropriate antimalarial drugs in 2010, a 12 percent decrease from 3.23 percent five years earlier (DoHS, 2011). The percentage of children under five who sleep under long-lasting insecticide-treated bed nets (LLINs) doubled from 48.2 percent in 2005 to 96.8 percent in 2012, putting the 2015 target of full coverage well within reach. The targets for API and the death rate associated with malaria have been achieved and the other three are on track to be achieved.

While the CMI rate did not decrease between 2005 and 2010, the nearly 43 percent decline between 2010 and 2011, from 5.72 to 3.28 per 1,000 people, enabled Nepal to achieve the MDG of halting and reversing the rate. The decline of the death rate associated with malaria from 0.04 to 0.00 per 100,000 people also met the goal (EDCD, 2006 and 2012). The API rate decreased 85 percent between 2000 and 2012, from 0.55 to 0.08 per 1,000 people, and is on track to achieve the 0.06 MDG.

Although the proportion of children under five with a fever who were treated with appropriate anti-malarial drugs decreased, both years met the target of 2.5. Given that the rate doubled in just five years, between 2005 and 2010, and is now over 96 percent, it is likely that 100 percent of children under five will sleep under LLINs by 2015.

#### Status and trends (tuberculosis)

Indicator	1990	2000	2005	2010	2013	2015 target
Prevalence rate associated with TB (per 100,000 people)	460ª	310 <sup>b</sup>	280°	244 <sup>d</sup>	238°	Halt and reverse the trend
Death rate associated with TB (per 100,000 people)	43ª	23 <sup>b</sup>	22°	22 <sup>d</sup>	21 <sup>e</sup>	Halt and reverse the trend
Proportion of TB cases detected (%)	NA	70 <sup>f</sup>	70 <sup>9</sup>	76 <sup>h</sup>	73 <sup>i</sup>	85
Proportion of TB cases cured under directly observed treatment short course (DOTS) (%)	40ª	89 <sup>f</sup>	89 <sup>9</sup>	90 <sup>h</sup>	90 <sup>i</sup>	91

Sources: \*National Tuberculosis Centre (NTC) (1990).

hNTC (2000).

hNTC (2005).

<sup>d</sup>NTC (2010). <sup>e</sup>WHO (2011). <sup>f</sup>DoHS (2002). <sup>9</sup>DoHS (2007). <sup>h</sup>DoHS (2010). <sup>i</sup>DoHS (2011).

About 45 percent of the total population is infected with TB, and of them 60 percent are adult (DoHS, 2011). Every year, 40,000 people develop active TB, and of them half are infectious and could spread the disease.

The prevalence and death rates associated with TB per 100,000 people declined markedly between 1990 and 2011, from 460 to 238 and 43 to 21 respectively (DoHS, 2011), and the proportion of TB cases detected increased slightly, from 70 in 2001 to 73 in 2011. The proportion of

TB cases cured under short course directobservation treatment (DOTS) was 90 percent in 2011, a level that, commendably, it has maintained for the last decade. Given that even the number of multi-drugresistant cases, which are more difficult to eradicate, is constant, Nepal is on track to achieve the MDG of 91 percent.

Achievement has been remarkable: the prevalence and death rates have declined and the proportion of TB cases cured under DOTS has increased by more than one

hundred percent since 1990 and stands stable at 90 percent with minor deviations of one to two percent across all development regions in 2011. As long as such achievement is sustained, the target will be met by 2015. However, progress in detecting cases of TB was minimal, just three percent over the decade from 2001 to 2011. To meet the 2015 target of 85 percent many more hidden cases need ferreting out; in fact, accelerating the rate of detection is a major concern. As TB spreads easily in areas where the population density is high, many TB patients are likely to be found in cities and the Terai.

#### Supportive environment

#### **MALARIA**

Following the World Health Organisation's 1998 call for countries to revamp their malaria control programmes, Nepal launched the Roll Back Malaria initiative was launched to address the perennial problem of malaria in hard-core malarial areas, namely forested areas, the Churiya foothills, the inner Terai and valleys in the hilly region, where more than 70 percent of the total malaria cases in the country are found.

The fact that the malaria pre-elimination programme is a component of the essential health care package and is labeled a 'priority 1' programme is a reflection of the government's commitment (EDCD, 2012). In addition, a vector-borne disease research and training centre has been established to support the programme.

The National Malaria Strategic Plan of 2011-2016 benchmarks important strategic interventions: malaria micro-stratification, early diagnosis and prompt and appropriate treatment, integrated vector control (indoor residual spraying and LLINs), case-based surveillance, epidemic preparedness and response, and strengthening information-education and behav-

ioural change communications. Current micro-stratification demonstrates that the number of VDCs at risk for malaria decreased 27 percent from 350 VDCs in 2010 to 255 VDCs in 2012 (EDCD, 2012).

The government's wholehearted commitment to eliminating malaria elimination is reflecting in its budgeting: 40 districts have been allocated both regular budget through its internal financing mechanisms as well as sector-wide approach basket-funding by bilateral assistance from the World Bank. After 16 March, 2014, most of the funding for fighting malaria in 25 priority districts will come from the Global Fund to Fight AIDS, TB and Malaria.

In 2011/12, two rounds of selective indoor residual spraying carried out in the malarious areas of 15 districts, 13 of which were those at high risk, helped protect 716,572 people and the use of LLINs promoted in the nation's 13 highrisk districts with the distribution of 839,061 nets free of cost (EDCD, 2012). Nets were also distributed to pregnant women residing in the high-risk VDCs in those same 13 high-risk districts through ANC clinics under district (public) health offices (D(P)HOs). As of 2012, 29,927 LLINs had been distributed to pregnant women (EDCD, 2012). In the 13 high- and 18 moderate-risk districts, rapid diagnostic test kits capable of detecting both Plasmodium falciparum and Plasmodium vivax were introduced to facilitate early diagnosis and appropriate treatment at peripheral institutions that do not have easy access to microscopic diagnosis (DoHS, 2010/11).

In 2012, two community sentinel sites for epidemic and outbreak surveillance were established in two PHCCs in each of the 13 high-risk districts (EDCD, 2012). Malaria outbreak preparedness and response is operational through the efforts of district-level rapid response teams and the stockpiling of anti-malarial drugs in

high-risk districts. Indoor residual spraying was carried out in outbreak-affected areas and malaria rapid diagnostic testing was continued in all high- and moderate-endemic districts. The use of on-the-spot microscopy centres was expanded in an attempt to strengthen early diagnosis and appropriate treatment.

The malaria programme strengthened the skills of health personnel at all levels so they could provide early diagnosis and appropriate treatment and refer or manage severe and complicated cases.

#### **TUBERCULOSIS**

The NTC developed a comprehensive national strategy for the period from 2010 to 2015, the National Tuberculosis Plan (NTP), that builds on the previous one and outlines an enhanced and more focused commitment to tackling the TB epidemic, consistent with Nepal's MDGs and Stop TB Partnership targets.

The NTP rapidly expanded the DOTS strategy by increasing the number of DOTS centers and sub-centres to 1,118 and 3,103 respectively and by integrating DOTS into general health services throughout the country. DOTS centres have been established in ward-level health clinics by mobilising communities and the private sector and an urban DOTS programme has been implemented in major cities and towns. There are 505 microscopy centres, 407 of which are run by the government and 98 by local or international non-governmental organisations or other partners.

Nepal has adopted an advocacy, communication and social mobilisation intervention approach which focuses on improving case detection and treatment adherence, combating stigma and discrimination, empowering people affected by TB, and mobilising political commitment and resources for tackling TB.

A Practical Approach to Lungs is one major programme that has helped to achieve

the objectives of the NTP, particularly in terms of detecting TB cases. At present, this activity is being conducted in 14 districts. In line with the public-private mix concept, it engages both public and private health care providers to ensure that they provide good-quality TB services that are in line with NTP policy and that meet international standards of TB care. In particular, it linked existing DOTS centers with private health care providers in various urban districts.

Over 80 percent of microscopy centres fall in the government sector, but regardless if it is public, non-governmental or private, each centre receives reagents, chemicals and equipment and sputum-smear examination free of cost. To reduce the workload by one-tenth, florescence, not bright-field, microscopy is provided. There is good laboratory networking among microscopy centers, D(P)HOs, regional quality-control centers (RQCCs) and the NTP: depending on its location, each center send its slides to one of five RQCCS via the concerned D(P)HO, where they are analysed by skilled and trained assessors.

The DOTS-plus programme for the treatment of multi-drug-resistant TB was started in September 2005. It is operates in 12 treatment and 62 sub-treatment centres distributed across all five development regions. In 2010/11, hostels for multi-drug-resistant-TB patients were also established in all five development regions.

A national reference laboratory and GE-NETUP provide sputum culture and drug susceptibility testing facilities. In addition, laboratories in the eastern and western development regions provide sputum culture testing. To manage the toxic effect of drugs, the NTP provides hematological and biochemical tests free of cost to MDR-TB patients. The South Asian Association for Regional Cooperation TB and HIV/AIDS Centre provides support for the prevention and control of emerging HIV/TB co-infection, and NTP activities are coordinated with other health

care activities, especially leprosy, HIV/AIDS and STI programmes.

The logistics of the supply system are nicely managed: to avoid shortages and stock-outs of drugs, the NTP has developed a drug-ordering system that uses the trimester reporting meetings for health staff to calculate requirements based on trimester utilisation and buffer stock requirements. Each level needs to maintain two to six months (or four to six months in the case of the regional level) of buffer stock to prevent a stock-out.

As part of its monitoring activities, the NTP introduced a computerised feedback system and maintains a standard system of recording and reporting conforming to demands of the health management information system (HMIS). The NTC frequently trains the staff of private health facilities to identify TB cases and private service providers routinely refer cases to the NTC.

### **Constraints and challenges**

#### **MALARIA**

While the number and severity of malaria cases is declining, there has no been no similar change among imported malaria cases. Whether they originate across the Indian border or arise due to internal migration (seasonal or conflict-related), such cases tend to be drug-resistant and pose a major challenge to malaria prevention efforts. Though LLINs have been distributed, not all recipients use them, and the internal residual spraying system needs to be more effectively executed and the quality of insecticide used better ensured. Public awareness has not yet reached the desired level, and although the Malaria Strategic Plan envisages the use of private-public partnerships, both private-sector and community involvement in the malaria programme are weak.

The use of malaria microscopy in ways counter to national protocol is another

concern and rates of collection and examination of slides of blood are still low. Coordinating between microscopy networks and collection centres is another challenge.

Climate change may alter the behavior, life cycle and geographical survival of mosquitoes, and the pattern of the malaria epidemic in Nepal may change accordingly. It has been argued that mosquitoes are shifting from lowland to highland areas, but without periodic entomological surveillance, the exact nature of the malaria vector including its resistance to insecticides cannot be determined.

#### **TUBERCULOSIS**

Whether the national TB programme (NTP) can be sustained is in doubt as it is heavily supported by external development partners who may cut off funding at any point.

Since the negative impact of TB is compounded among HIV/AIDS patients, the NTP conducts regular surveys to find out the correlation. In 2006, 2.4 percent of TB patients were also HIV positive and the proportion could rise rapidly if HIV prevalence rates were to increase, especially as collaboration between the HIV/AIDS and TB programmes is inadequate. Although the use of private-public partnerships is envisioned, both private-sector and community involvement in the TB programme are weak.

The management and treatment of patients who are resistant to TB drugs is a serious challenge as there are often no separate facilities for them and sputum culture facilities are not available in either the far- and mid-western or the central regions. There is no post for quality-control assessors at the regional level, and no sanctioned posts for chest physicians at the national, regional or zonal hospitals. There is no chest hospital at the national level either.

## Addressing constraints and challenges

#### **MALARIA**

LLINs should be distributed to targeted populations in all high and moderate malaria-risk districts, and this effort complemented with stronger and more vigorously monitored behavioral change communications. Awareness about the threats associated with the breeding of mosquitoes and how it can be controlled at the local level should be raised among rural communities residing in malariaprone areas. The internal residual praying programme should be monitored regularly to improve its implementation and assess the effectiveness of the insecticides used. The malaria surveillance system should be strengthened so that it can respond promptly to an outbreak. All efforts related to malaria control should be planned with broad community participation and promote meaningful private-public partnership. All concerned health workers should be oriented to and trained in all aspects of the malaria programme, including microscopy. Malaria vector dynamics should be monitored periodically with an eye toward climate change and resistance to insecticides.

#### **TUBERCULOSIS**

As the TB programme depends heavily on donor funding, ways to increase its financial sustainability need to be considered. A chest hospital providing tertiary level care at the national level should be established, and a chest unit headed by a chest physician and staffed with adequate personnel should be opened in each regional and zonal hospital along with the provision of chest physician. Posts for regional quality control assessors need to be created and at least one sputum culture facility established in either the mid-or farwestern development region.

Since the HIV epidemic poses a major challenge to efforts to control TB, more functional collaboration needs to be established between the NTC and the NCASC so that TB/HIV activities, including generating good evidence for advocacy, raising awareness, and mobilising resources, and establishing partnership, can be jointly planned and implemented.





# ENSURE ENVIRONMENTAL SUSTAINABILITY

**TARGET 7A:** Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources

Table 7A. Status of CO2 emissions and energy consumption in Nepal

Indicator	1990	2000	2005	2010	2013	2015 target	Remarks		
Annual CO2 emissions per capita (t)	n/a	n/a	0.2ª	n/a	0.1 <sup>h</sup>				
Consumption of ozone-depleting substances (t) <sup>b</sup>	25.0 <sup>b1</sup>	99.2	0.88 <sup>b2</sup>	n/a	n/a				
Energy consumption (ToE) <sup>K</sup>	6847	7759	8616	9876	10,155 <sup>k</sup>		Very low		
Commercial energy use per unit of GDP (ToE/mRs)	1.44°	3.91 <sup>c</sup>	3.64 <sup>c</sup>	3.7 <sup>d</sup>	3.2 <sup>i</sup>		Montreal Protocol met		
Proportion of people using wood as their main fuel	75°	67.74°	69.1°	68.4 <sup>g</sup>	64.4 <sup>j</sup>				
Proportion of people using liquid petroleum gas as their main fuel	n/a	7.67°	8.2 <sup>f</sup>	12.3 <sup>9</sup>	18 <sup>J</sup>				

Sources: aUNDP (2005).

<sup>b</sup>GoN-NPC & UNCT (2010). <sup>c</sup>NPC & UNCT (2005).

dMoF (2008a). eCBS (2002).

<sup>f</sup>Water and Energy Commission Secretariat (WECS) (2006).

<sup>9</sup>CBS (2009). (2007 data) <sup>h</sup>UNDP (2013). (status in 2009)

Department of Water Supply and Sewerage (DWSS)(2011).

(status in 2010) <sup>j</sup>CBS (2011). <sup>k</sup>MoF (2012).

### Status and trends

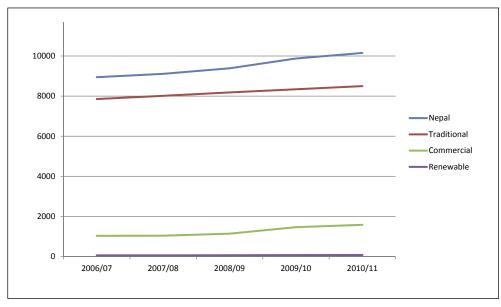
Energy intensity is a measure of the energy efficiency of a nation's economy. The overall energy use per unit of GDP shows almost a constant or very slow increasing trend (10,155 ToE in 2011/12), a reflection of the unsatisfactory energy efficiency of the country. Although commercial energy use per unit of GDP (ToE/

mRs) doubled between 1990 and 2000, after that it fluctuated at the rather low values of 3-4 ToE/mRs and then remained almost constant or declined after 2005. In 2009, Nepal's total emission of CO<sub>2</sub> was four megatons, a negligible proportion of the global total of 29,837 megatons, and its per capita emissions were about 0.1 t, almost nothing compared to the global average of 4.5 t (UNDP, 2013).

The fact that Nepal's consumption of ozone-depleting substances was just 0.88 t in 2004, a huge decrease from 99.2

t in 2000, showed that the nation upheld its Montreal Protocol commitment. (Figure 7.1).

**Figure 7.1.** Annual energy consumption (in ToE)



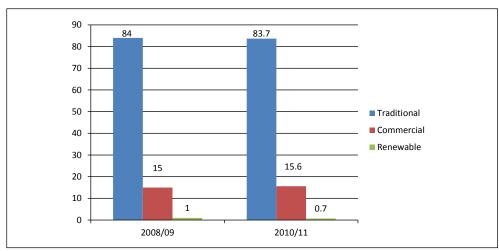
Source: MoF (2012).

Energy consumption increased gradually over the last decade. Total consumption in 2010/11 was 10,155 ToE, an increase of just 2.8 percent from the previous year, but consumption in the first eight months of 2011/12 was 8,203 ToE, a substantial

24.8 percent increase from the previous year (MoF, 2012).

Most Nepalis rely on traditional sources of energy, and the proportion that do so has changed little over the last two years (Fig-

Figure 7.2. Share of energy use (in %)



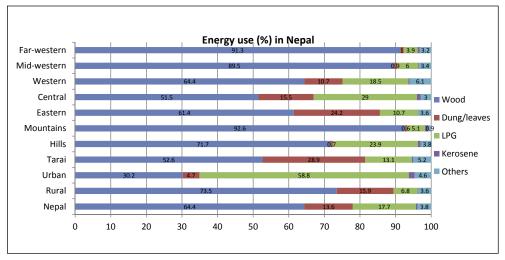
Source: CBS (2012).

ure 7.2). In 2010/11, 83.7, 15.6 and 0.7 percent of total energy consumption was traditional, commercial, and renewable respectively; in 2008/09 these same ratios were 84, 15, and 1 percent (MoF, 2012).

Of the traditional energies used, firewood continues to be the primary fuel used for cooking, with about two-thirds (64.4 percent) of households relying on it. Other fuels used for cooking include liquid petro-

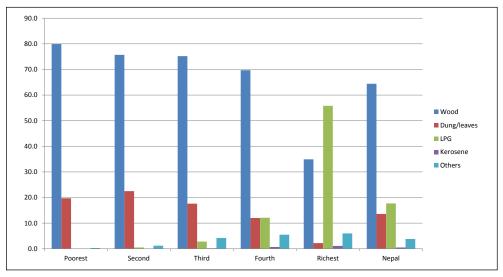
leum gas (LPG) (17.7 percent); cow dung, leaves, straw, and/or grass (13.6 percent); and "other" fuels (3.8 percent). LPG is the main fuel in urban areas (about 58 percent), and in Kathmandu Valley its usage reaches 93 percent (CBS, 2012). Most rural areas rely on firewood to cook but a significant proportion of Tarai households use cow dung, leaves, straw, and/or grass (Figure 7.3). In terms of consumption quintiles, 55.8 percent of the top quintile name LPG

**Figure 7.3.** Energy use by ecological and development region and rural-urban setting (in %)



**Source:** CBS (2011a).

**Figure 7.4.** Main fuel used for cooking by consumption quintile (in %)



**Source:** CBS (2011a).

as their main cooking fuel whereas over 80 percent of the bottom four quintiles rely on either firewood or cow dung, leaves, straw, and/or grass (CBS, 2011a) (Figure 7.4). In short, the nation's heavy reliance on traditional energy sources has remained unchanged (MoF, 2012) although the total consumption of LPG did increase substantially to 18 percent in 2011/12 from just 12 percent in 2010.

Seventy percent of all households and 96 and 63 percent in urban and rural areas respectively have access to electricity in their dwellings (Figure 7.5). Almost all households in Kathmandu Valley have access to electricity but just 55 percent in the mountains and 45 and 55 percent in the Mid- and Far-Western development regions respectively do. Access to electricity in one's dwelling gradually increases from the bottom quintile (42 percent) to the top quintile (94 percent) (CBS, 2011a).

The domestic and industrial sectors used the most electrical energy in 2010/11, 42.5 percent and 37.7 percent of total consumption respectively, with the commercial, non-commercial and miscellaneous sectors using just 7.6, 4.0, and 8.1 percent respectively of the total. It is estimated that these rates will change minimally in 2011/12 (CBS, 2011a).

Overall, about 87 percent of households perceive the quality of electricity services to be either fair (46 percent) or bad (41 percent), and just 13 percent say it is good (CBS, 2011b). Satisfaction with electricity services varies considerably by location and wealth status. The top quintile is most dissatisfied: the percentage reporting that electricity services are bad is lowest among the bottom quintile (36 percent) and the highest among the top (50 percent) (CBS, 2011b). Residents of Kathmandu Valley are most likely to say services are bad (81

Households with access to electricity (%)

100

90

80

80

70

60

50

95.7

40

63.9

63.9

64.55.4

65.4

66.7

78.1

66.7

78.1

78.6

67.7

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**Figure 7.5.** Households with access to electricity (%)

Source: CBS (2011a).

Rural Tarai-Mid & Far. Rural Tarai-Western Rural Tarai-Central Rural Tarai-Eastern Rural hills-Mid & Far Western Rural hills-Western Rural hills-Central Rural hills-Eastern Urban-Tarai Urban-other hills Urban-Kathmandu valley Mountains 0 10 20 30 40 50 60 70 80 100 ■ Good ■ Fair ■ Bad

Figure 7.6. Self-reported adequacy of government electricity services

Source: CBS (2011b).

percent) and those in the rural hills in the western development region, the least (11.6 percent) (Figure 7.6).

While its motive is boosting economic development and only secondarily tackling climate change, the government has, in fact, prioritised the construction of micro and small hydropower plants, and the installation

of biogas plants, both examples of environmentally sustainable energy sourcing (Box 7.1). Donors seeking to offset carbon emissions credits under the United Nations' Clean Development Mechanism have expressed interest in supporting both initiatives. Progress in the use of renewable energy technologies is given in Tables 7.1 and 7.2.

Table 7.1. Status of renewable energies in Nepal

Technology	Unit	2010	2012 <sup>b</sup>	Potential
Micro hydropower plants	kW	15,621	22,000	>100,000
Solar photovoltaic home systems	No.	221,152 (5 MW)	300,000	4.5 kWh/m2/day
Biogas plants	No.	221,286	280,000	1900,000
Improved water mills	No.	7,239	7,600	30,000
Improved cooking stoves	No.	415,649	663,000	>2,500,000
Wind	kW	9.2	ca. 10	3,000,000
Biofuel (Jatropha curcas)		very low		1,100,000 tons

#### Sources:

<sup>a</sup>Alternative Energy Promotion Centre (AEPC) (2010)

<sup>b</sup>AEPC (2013).

**Table 7.2.** Renewable energy technologies and programmes supported under the United Nations' Clean Development Mechanism

Programme/technology	Capacity / Annual CO2 equivalent emission reduction (t)	Status
First Two Biogas Support Programmes	19396 plants / 60,000	Registered
Micro hydropower	14.965 MW / 40,800	Being validated
Additional Biogas Support Programme	40,602 plants /80,000	Being validated

Sources: AEPC (2010).

### **Supportive environment**

The government has formulated many policies and enacted laws and regulations related to the environment and climate change to promote sustainable consumption and production. Despite its efforts at promoting renewable energy, however, its share of Nepal's total energy supply is still less than three percent (NPC & UNDP, 2011).

The current fiscal year saw the Nepal Electricity Authority make structural improvements: it carried out activities designed to increase its professional competence which will likely enable to better deliver prompt and reliable service to its customers.

Ongoing activities like the establishment of public-private partnerships for urban environmental improvement, waste management and local-level environmental strengthening both promote development and maintain environmental balance. The Alternative Energy Promotion Centre was established in 1996 in order to sustainably develop renewable energy technologies and supply them to rural areas. The government is in the process of formulating an act regarding renewable energy, in particular the import-substitution of energy and the maintenance of

a sustainable environment through its extensive expansion and development (MoF, 2012).

A ministerial-level conference on climate change in mountainous countries was held in Kathmandu on 5-6 April, 2012; several other climate change-related workshops also took place in 2011/12. Nepal prepared both a national and several local adaptation plans of action to meet the requirements of the UN Framework Convention on Climate Change. The strategies and actions of the former seek to increase the adaptive capacity of communities through livelihood support, improved environmental resource governance, collective response, improved service delivery, and access to green technology and finance (Ministry of Environment, 2012).

## **Constraints and challenges**

Though Nepal has great potential to generate hydropower, its energy crisis has grown progressively worse it has failed to attain any notable success in increasing its generation of hydro-electricity (MoF, 2012) and the lack of funding for subsidies to install home solar systems. Most of the micro-hydro power projects slated to be constructed in 2011/12 were not completed on schedule (MoF, 2012).

## Addressing constraints and challenges

Various sectoral and cross-sectoral policies and strategies have been introduced to facilitate the implementation of international environmental conventions, including the Convention on Biological Diversity, and the provisions of the United Nations Convention to Combat Desertification and United Nations Framework Convention on Climate Change. The TYP (2009/10-2012/13) suggests that the government will be more responsive to its global commitments, and the NPC has begun climate-resilient planning. As laid out in the Climate Change Policy of 2001, the government aims to improve liveli-

hoods by mitigating and adapting to the adverse impacts of climate change, adopt a low-carbon-emission socio-economic development path, and collaborate with various stakeholders in the spirit of Nepal's national and international commitments related to climate change. Nepal must adopt efficient and affordable energy products to reduce poverty and sustain prosperity. Increasingly, these products must be renewable sources in order to limit the impact on the environment and reduce women's the drudgery of women, who are usually responsible for fetching water, firewood, and fodder and thereby have less time than men to participate in decision-making processes and income generating activities.



TARGET 7B: Reduce biodiversity loss, achieving a significant reduction in the rate of loss by 2010

Indicator	1990	2000	2005	2010	2011/12	2015 target	Remarks
Proportion of land area covered by forest	37a	39.6 <sup>b</sup>	39.6 <sup>b</sup>	39.6 <sup>b.</sup>	39.6b*	40	Satisfactory
Proportion of fish stocks within safe biological limits	n/a	n/a	n/a	n/a	n/a		Lack of data
Proportion of total water resource used	n/a	n/a	6.66 <sup>d</sup>	n/a	n/a		Lack of data
Proportion of terrestrial area protected	7.4°	13.6°	19.4°	22.23e	23.23 <sup>f</sup>		Satisfactory
Proportion of species threatened with extinction	n/a	n/a	n/a	n/a	n/a		Lack of data
Area of forest managed by communities (mil ha) <sup>c</sup>	0.013	1.0	1.20	1.24	1.65 <sup>9</sup>		Satisfactory

 $^{\mathrm{a}}$ Ministry of Forests and Soil Conservation (MFSC), Asian Development Bank, & FINNIDA (1988).

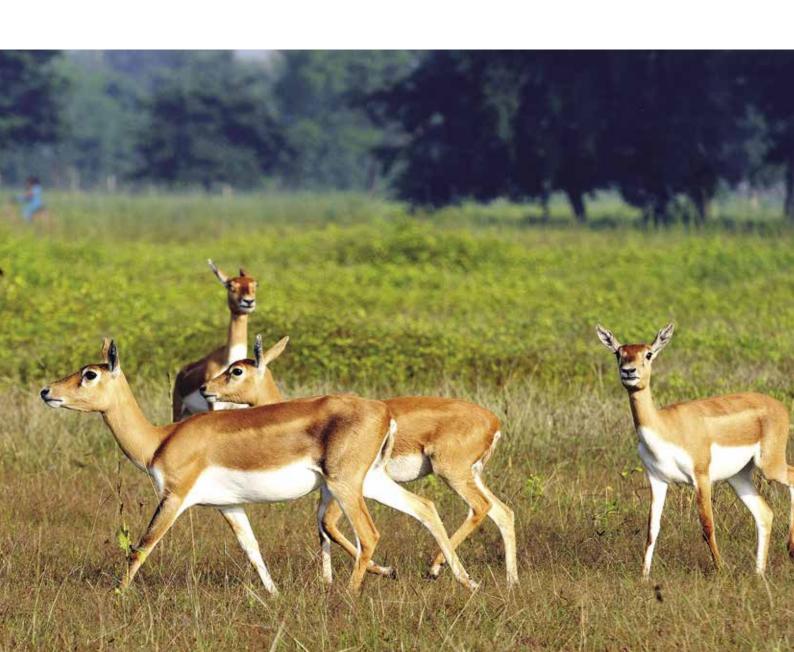
<sup>b</sup>Department of Forest Resources and Survey (DFRS) (1999a).

<sup>c</sup>MFSC (2009). <sup>d</sup>WECS(2005).

\*Department of National Parks and Wildlife Conservation (NPWC) (2010). \*DNPWC (2011/2012).

<sup>9</sup>CBS (2011).

\*UNDP (2013). Forest area 25.4% in 2010



### Status and trends

Nepal has made significant progress in reducing the rate of loss of biodiversity. Forest covered 39.6 percent of Nepal's total land area when it was surveyed in 1994 (DFRS, 1999), 29 percent of which was forest land and 10.6 percent of which was shrub land (NPC & UNCT, 2005). Under Nepal's community forestry programme, approximately 1,664,918 ha of the total 5.83 million ha of forest has been handed over to 17,808 forest users' groups, benefiting over 2.19 million, or over 40 percent, of Nepal's total households (NPC, 2013). This programme empowers rural women and poor and otherwise disadvantaged groups, promotes income generation and community development activities, and improves the livelihoods of people in rural areas.

The area that falls under Nepal's "protected area" designation tripled between 1990 and 2012. In 2010, its 20 protected areas and 12 buffer zones together covered over 34,000 km2 (DNPWC, 2010), or 23.2 percent of Nepal's total area, almost twice the global average of 12 percent (UN, 2009), and more than the 17 percent of terrestrial areas suggested by the Convention on Biological Diversity (UN, 2013). Protected areas have been established in all of Nepal's physiographic regions though the highlands are better represented than are the eastern midhills, the Tarai and the Churiya hills. The expansion of both community forests and protected areas after 1990 is the outcome of the application of diverse communitybased resource management models.

Nepal's species richness, especially in birds, angiosperms, and medicinal and aromatic plants is considerable, particularly so given its small size (NPC & UNCT, 2010). There are, for example, an estimated 2,000 species of medicinal plants and non-timber forest products in Nepal. Sufficient data on fish stocks and species threatened with extinction are lacking (MFSC, 2009).

### **Supportive environment**

Nepal has developed and implemented innovative conservation policies and institutions. "Approach Paper to the Thirteen Plan (2013/14-2015/16)" names ecosystem services and poverty reduction as important objectives of forestry sector management (NPC, 2013). Since the 1990s, Nepal has pursued participatory conservation approaches using a variety of governance models in order to attain two related objectives-biodiversity conservation and poverty alleviation. Since the late 2000s, conservation agencies have promoted community-based landscape conservation (MFSC, 2009) because it takes into account the impacts of climate change on biodiversity and local livelihoods.

The MoFSC, the national focal agency for the Convention on Biological Diversity, has adopted many policies and strategies for implementing its commitments. They include the Nepal Biodiversity Strategy (2000), Nepal Biodiversity Strategy Implementation Plan (2006-2010), National Bio-Safety Framework (2007),



Forestry Sector Policy (2000), Herbs and Non-Timber Forest Products Policy (2006), National Wetland Policy (2003), and Water Resource Strategy (2002). In addition, the National Adaptation Plan of Action stresses the conservation of forests and biodiversity at the watershed and landscape levels. With support from the World Bank, the Pilot Programme for Climate Resilience was initiated in 2010 to support the integration of climateresilience considerations into core development planning (Chaudhary et al., 2012). Nepal is also implementing transboundary ecosystem-based conservation programmes such as the Tarai Arc Landscape, Kailash Sacred Landscape, Conservation and Development Initiative, and Kangchenjunga Landscape Conservation and Development programmes. In 2011 it formed the National Tiger Conservation Committee chaired by the prime minister. In addition, it has established a Forest and Climate Cell, initiated REDD+ initiatives, and begun a biodiversity registration programme. The National Bio-Safety Framework and Policy the government adopted in 2006 protects biodiversity and human health from the unfavourable impacts of imports and forbids the production and the use of genetically modified organisms.

The Nepal Agrobiodiversity Policy of 2007 regards agrobiodiversity as the backbone of the sustainable development of agriculture, food security and poverty alleviation. The draft version of the Agricultural Development Strategy incorporates a 20-year vision and a 10-year planning horizon for the agricultural development of Nepal. It was prepared with technical support from the Asian Development Bank and presented to the Ministry of Agricultural Development in July 2013 (Agricultural, 2013).

By December 2013, the MoFSC is expected to have released a national biodiversity strategy and action plan is based on the guidelines laid out in the Strategic

Plan for Biodiversity (2011-2020), which includes the Aichi targets. It also seeks to create four million forestry-based jobs within a decade by endorsing 'Forestry for Prosperity: A Vision for 2030' and implementing the Multi-Stakeholder Forestry Programme.

### **Constraints and challenges**

Challenges to reducing biodiversity loss include (a) the lack of policies for effectively addressing emerging global environmental challenges, (b) the lack of an effective mechanism of sharing the benefits of local natural resources among the state, the developer and local communities, (c) the lack of effective monitoring mechanisms and weak inter-sectoral and inter-agency coordination, (d) the lack of effective multi-stakeholder mechanisms and limited multi-stakeholder participation in forest conservation, and (d) inadequate resources (human and financial) and technology for effectively implementing the Millennium Ecosystem Assessments related to species and ecosystem conservation, sustainable use of biological resources, benefit-sharing, and climate change. In addition, Nepal's policies and mechanisms for harvesting natural resources, particularly non-timber forest products do not favour the poor, women or disadvantaged groups. Nepal's commitment to the Nagoya Protocol remains in doubt as its Access to Genetic Resources and Benefit-Sharing bill has not been finalised, let alone passed.

Political instability has made it difficult to eliminate policy gaps or even to prepare a new constitution. Governance is poor; law and order, weak; and the transfer of government officials, too frequent. As a result, the conservation of natural resources throughout the country, but especially in the Churiya hills, has been adversely affected.

Nepal is in the process of preparing methodologies, mechanisms and pro-

grammes for Reducing Emission from Deforestation and Forest Degradation. The right to own and the ownership of natural resources, particularly forests, in Nepal's proposed federal structure is an emerging issue which will have implications on people and groups directly dependent on natural resources, particularly indigenous people and socially excluded groups. Though Nepal has ratified ILO 169, its policy framework and mechanisms regarding the right of indigenous peoples to natural resources remain unclear and could result in conflict if not addressed adequately.

## Addressing constraints and challenges

Community forestry has been successful in restoring degraded land and greenery, increasing and conserving biodiversity, and increasing the supply of forest products. Protected-area management through community-based, landscape-level approaches have also contributed to biodiversity, soil and water conservation and helped sustain the livelihoods of mountain communities. The forestry sector has the potential to provide new jobs but only if matters like deforestation and degradation, reforestation, improving livelihoods and food security, and diminishing losses from natural disasters including droughts and floods, receive urgent attention and if the value of natural resources and biodiversity is taken into account (UN, 2013). In its endeavour to address biodiversity loss, water scarcity, food security, disease outbreak, disaster, and governance of natural resources, Nepal should adopt a watershed- and landscape-level approach. It must also finalise and pass the Access to Genetic Resources and Benefit Sharing bill so that biodiversity registration can be facilitated.

TARGET 7C: Halve the proportion of people without sustainable access to safe drinking water and basic sanitation by 2015

Table 7C: Status of drinking water and sanitation in Nepal

Indicator	1990°	2000a	2005b	2010°	2012/13 <sup>d</sup>	2015 MDG target	2107 nation- al target
Proportion of population using an improved drinking-water source	46	73	81	80.4	85	73	100
Proportion of population using an improved sanitation facility	6	30	39	43	62	(80)*	100

#### Sources:

<sup>a</sup>NPC & UNCT (2005).

bCBS (2004).

'NPC & UNCT (2010).

dNPC (2013)

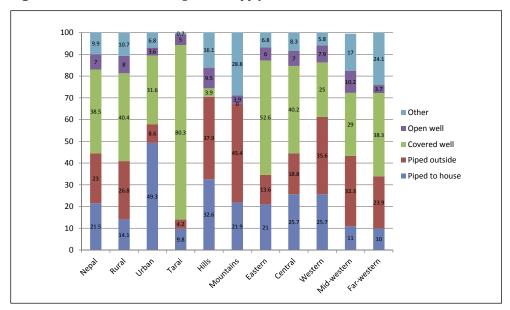
\*2015 target set in the Sanitation Master Plan

### Status and trends: Improved drinking water

The national average for the proportion of households using safe drinking water sources was 85 percent in 2012/13 (NPC, 2013), a sizeable increase over the 80 percent achieved by 2010 and in excess of the

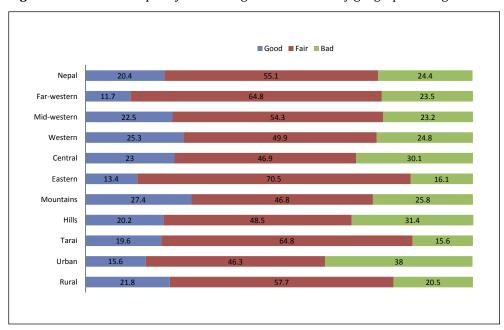
2015 MDG target of 73 percent. However, access to piped water, considered the safest source, has not increased in the last seven years (CBS, 2011a). Overall, nearly 44.5 percent of households have access to piped water, and almost half of these households have private connections. The remaining 55.5 percent depend on cov-

Figure 7.9. Sources of drinking water supply



**Source:** CBS (2011a).

Figure 7.10. Perceived quality of drinking water facilities by geographical region



**Source:** CBS (2011).

ered wells (38.5 percent), open wells (7 percent), and other unreliable sources like river and spring water (10 percent) (CBS, 2011a) (Figure 7.9).

Access to improved (piped) drinking water facilities varies across social groups

and place of residence. Unsurprisingly, access is better in urban (58 percent) than rural (41 percent) areas. By development region, the Western region has the highest proportion (61 percent) and the Far-Western region, the lowest (34 percent). Among Nepal's three ecological regions,

the Tarai has the least access to piped water (14 percent) though urban areas fare better than rural. In the Terai, about 80 percent of households draw drinking water from covered wells (CBS, 2011a).

Overall, 20 percent of households rate drinking water facilities as good; 55 percent fair; and 25 percent, bad (Figure 7.10). Urban households in Kathmandu Valley have the worst opinion of drinking water facilities (68 percent say they are bad) perhaps because urban households are more dependent on government facilities than rural households are. Those rural households that depend on traditional sources were not counted as respondent households, as the question was not applicable to them. Households in the Tarai region were most satisfied with drinking water facilities, with 84 percent ranking them fair or good (CBS, 2011a).

Access to piped water is positively associated with household wealth: about 47 percent of households in the top quintile have their drinking water piped to their housing units while only 7 percent of the bottom quintile do (Figure. 7.11).

The most accessible facility in the country is drinking water: almost all (99 percent) of households are located within 30 minutes of a source and access is uniform during both the rainy and dry seasons. Disparities across geographical regions and consumption quintiles are minimal (CBS, 2011a).

### Status and trends: Improved sanitation

Between 2000 and 2011, the national sanitation coverage more than doubled, from 30 percent to 62 percent, and surpassed the 2015 MDG target of 53 percent (Table 7.C). The average annual increase over this period was 2.9 percent, with the increment in the two years between 2009/10 and 2011/12 a dramatic 144 percent (NPC & UNDP, 2012) (Figure 7.12). Those without access to toilets defecate in the open.

In terms of Nepal's three physiographic regions, sanitation coverage is highest in the hills (75 percent). That rate drops significantly to 60 percent in the mountains, and more still to just under half (49 percent) in the Terai; 16 of whose 20 dis-

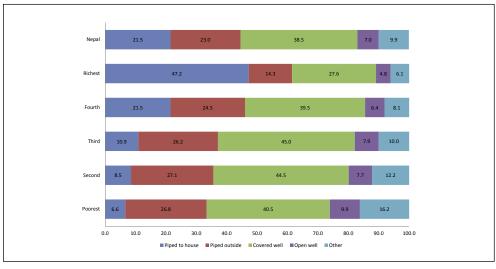


Figure 7.11. Source of drinking water by consumption quintile

Source: CBS (2011a).

tricts have rates below the national average (CBS, 2012; NPC & UNDP, 2012) (Figure 7.12). Disparities between urban and rural areas as well as among geographical regions are very wide. While sanitation coverage in urban areas increased from 80 percent to 91 percent over the last decade, that in rural areas rose from 25 percent to 55 percent (NPC & UNDP, 2010; CBS, 2012). Unlike drinking water coverage, which exceeds 70 percent among all social groups, sanitation coverage varies dramatically by ethnicity. Newars have the highest rate (71.6 percent) and Madhesi Dalits the lowest (4.6 percent) (NPC & UNDP, 2012).

The disparities in sanitation coverage between the rich and the poor are also stark. In the 13 years between 1995 and 2008, while the rate among the bottom quintile almost tripled from 4 to 11 percent it is still only a fraction of the rate of the top quintile, 97 percent (NPC & UNDP, 2012). In Nepal, it is the poor who lack toilets.

Sanitation is not adequate in schools: only 80 percent of community schools have toilets, and of them, only 65 percent have separate facilities for girls (DoE, 2011). The inadequate levels of sanitation and hygiene and supply of water in many schools cause children, especially adolescent girls, to leave school during the day and thereby miss crucial classes (NPC & UNDP, 2012). The uneven progress in sanitation has had a number of other negative effects: lack of sanitation is positively correlated with the incidence of diarrhoeal diseases and rates of child mortality and negatively correlated with the proportion of girls in secondary and tertiary education.

The annual growth rate in sanitation coverage in urban areas was only about 1.0 percent over the last decade, while that in rural areas was 2.7 percent. Growth in urban areas was limited by rapid population growth and municipal governments' inattention to the sanitation needs of

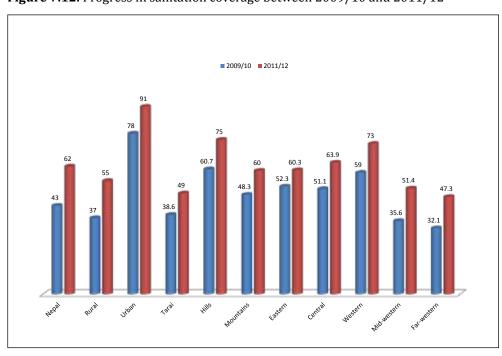


Figure 7.12. Progress in sanitation coverage between 2009/10 and 2011/12

Source: NPC & UNDP (2012).

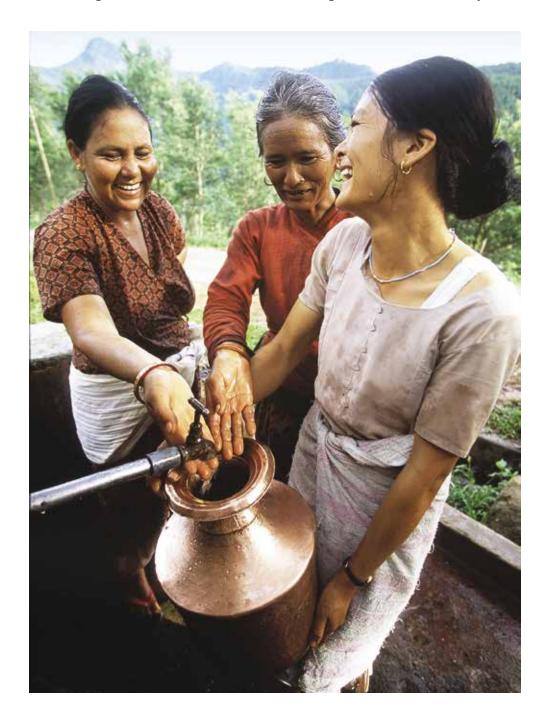
informal settlements such as slums and squatter areas (NPC & UNDP, 2012).

### Supportive environment

The Interim Constitution of 2007 defines access to water as a fundamental right of its citizens, and the government, to fulfill that right, has set itself the target of achieving universal access to basic

water supply and sanitation services by 2017. The government will be aided by the UN's MDG Acceleration Framework, which aims to accelerate progress towards the achievement of MDGs by identifying and analysing bottlenecks (NPC & UNDP, 2012).

The government has promulgated a number of policies, strategies and plans on drinking water and sanitation (NPC &



UNCT, 2010; NPC & UNDP, 2012). The most recent national sanitation and hygiene master plan, that of 2011, attempts to harmonise all other existing sanitation policies and promote action at the national and the local level so that both MDG and national targets will be met. This plan puts local bodies in the driver's seat, giving them the liberty to steer their own sanitation campaigns through decentralised actions. It lays out nine guiding principles: (i) developing open defecation-free zones; (ii) providing universal access to sanitation in water supply and sanitation projects; (iii) making informed technological choices; (iv) promoting the leadership of local bodies; (v) defining VDCs or municipalities as the smallest units of planning; (vi) ensuring that financial support is locally managed; (vii) requiring that sanitation facilities be provided in public institutions; (viii) requiring new buildings to include toilets; and (ix) promoting hand-washing with soap and other behavioral changes (NPC & UNDP, 2012). Guidelines for implementing this plan are being developed; they will include procedures for supporting the ultrapoor and other disadvantaged people in constructing toilets and adopting sanitary and hygienic behaviours.

An independent study of water, sanitation and hygiene commissioned by the NPC in 2011 and supported by the Asian Development Bank, World Bank, and UNICEF concluded that Nepal's policies, strategies, legal frameworks, and institutional structures and roles are sound and satisfactory but that they are not adequately implemented or complied with. For this reason, progress in water and sanitation coverage has been uneven across geographical and demographic categories. Weak institutional capacity, insufficient coordination and planning, the lack of trained and dedicated human resources, and an inconsistent support mechanism are the major factors behind the poor implementation of policies (NPC & UNDP, 2012). More encouragingly, following its establishment in 2011, the Ministry of Urban Development was designated as the lead ministry for water and sanitation (NPC & UNDP, 2012).

The Rural Drinking Water and Sanitation Project aims to make access to drinking water and sanitation facilities universal through the construction of gravity, tubewell, and rainwater-harvesting drinking water systems as well as through the construction of toilets and the implementation of environmental sanitation activities.

The Rural Water Resources Management Project, which operates in Humla, Dailekh, Kailali, Doti, Achham, Bajura, Bhajhang, Darchula, Baitadi and Dadeldhura districts of the Mid- and Far-Western development regions, strives to improve environmental conditions and living standards through sustainable drinking water and sanitation management.

The Western Nepal Rural Drinking Water and Sanitation Project was launched in 2008/09 to enhance drinking water and sanitation facilities in the districts of Tanahu, Syangja, Parbat, Baglung, Myagdi, Kapilvastu, Rupandehi and Nawalparasi and Pyuthan.

## **Constraints and challenges**

While about 85 percent of the country's population does, in fact, have access to basic water supplies, the services of most urban water supply systems are neither efficient nor effective and many rural water supply schemes no longer function. As per government policy, the DWSS has handed over the management of many rural schemes to the communities which use them but, in the wake of their failure, now plans to rehabilitate and upgrade more than 500 such schemes.

The sanitation sector, too, is unsatisfactory: only 62 percent of the total population has sanitation facilities and those few sewerage systems in operation do

not function well. In fact, almost all urban sewage is dumped without treatment in nearby rivers.

The recently adopted approach of integrating of water supply and sanitation programmes has seen a gradual improvement in sanitation. Now, public health education programmes, too, are being integrated (WECS, 2011). Even so, the water supply and sanitation targets envisioned in the National Water Plan of 2005 given below have been only partially achieved.

### By 2012

- 90 percent of the population has access to basic water supply services;
- 15 percent of the population has access to medium- or high-quality water supply services; and
- 90 percent of the population has access to basic sanitation facilities.

### By 2017

- 100 percent of the population has access to basic water supply services;
- 27 percent of the population has access to medium- or high-quality water supply services; and
- 100 percent of the population has access to basic sanitation facilities.

#### By 2027

 50 percent of the population has access to medium- or high-quality water supply services.

## Addressing constraints and challenges

Having access to a supply of safe, goodquality water is fundamental to the sustenance of human life as, without it, people are susceptible to various water related diseases. For this reason, the government and the citizenry must concern themselves not just with the accessibility of an adequate supply of water but also with of the availability of good-quality water. To meet the ambitious targets set by the GoN, the following recommendations should be implemented:

- To achieve 80 percent sanitation coverage by 2015 and 100 percent by 2017, the annual rate of increase needs to be increased from 2.9 to 4.5 percent (NPC & UNDP, 2012).
- Community-based sanitary surveillance should be prioritised so that the current status of sanitation can be assessed and programme areas identified. Community-friendly and lowcost technology should be applied to avoid alienating local people and to foster public-private partnerships.
- ⇒ It is critical to decentralise. Through the Local Governance Act, water quality resource centres should be established, if not at first at the VDC level at least at the regional and district levels with plans to extend services to and thereby empower VDCs. Financial, institutional and technical knowhow needs to be increased so that drinking water and sanitation schemes can be sustained at the VDC level. In urban areas where the demand for water is high and where people can afford to pay, the concepts of cost recovery and publicprivate partnership should be applied to the supply of good-quality water.
- The environmental contamination of drinking water at its source, by the conveyance system or at the users' level can spread infectious diseases like cholera, typhoid, hepatitis, dysentery, and worm infestation as well as expose users to harmful materials such as heavy metals and pesticides that deteriorate water quality (World Health Organisation, 2010). The development of the drinking water sector in a sustainable and socially acceptable manner with the use of appropriate technologies should be a high-priority agendum.

**TARGET 7D:** To have achieved a significant improvement in the lives of slum dwellers by 2020

Indicator	1990	2000	2005ª	2010 <sup>b</sup>	2011/12	2015 target	Remarks
Population living in slum and squatters	n/a	11,850	18,000	50,000	n/a	-	

#### Sources:

aNPC and UNCT 2010.

### Status and trends

Slums and squatter settlements are increasingly emerging as principal features of cities in many developing countries (Acharya, 2010), including Nepal. Slums are urban areas with poor environmental conditions, and slum dwellers do not have access to good sanitation or water services. Slum dwellers may or may not own the land they live on. Squatters, in contrast, are people living in informal settlements built on land to which they have no legal title. Both types of populations are emerging phenomenon in urban Nepal.

There is little national-level data on slums and squatter settlements, so the MDG Progress Report 2010 made do with data from Kathmandu Valley as an illustrative example. Over the last decade, the number of squatters has increased over 420 percent, from 11,850 in 2000 to 50,000 in 2009 (Integrated Regional Information Networks, 2007; NPC & UNCT, 2010). The massive increase in the valley's population over the last four decades (from 500,000 in 1970 to more than 3 million in 2010) and its subsequent urbanisation have resulted in the large-scale migration of the landless to the three major historic cities in the basin-Kathmandu, Lalitpur,



<sup>&</sup>lt;sup>b</sup>Integrated Regional Information Networks (2007, May 23).

and Bhaktapur. Other very poor and highly deprived families include freed *kamaiya* and haliya, the families of freed *kamalari*<sup>8</sup>, bonded labourers and tenement farmers, most of whom reside in the farwestern Tarai (NPC & UNCT, 2010).

In 2000 the Landlessness Solution High-Level Commission recognised 30,381 people as landless and 41,035 as squatters (Shrestha, 2013). There were just 17 squatter settlements in Kathmandu Valley in 1985; that number had increased to 64 in 2003 (Lumanti Support Group for Shelter, 2008). In just 18 years, the squatter population increased almost seven-fold, from 2134 to 14,500, with an average annual growth rate of 25 percent. Of 40 squatter settlements in Kathmandu Valley in 2008, at least 24 (60 percent) were located along the banks of the five rivers of the valley (Lumanti Support Group for Shelter, 2008).

On 8 May, 2012, more than 250 huts were demolished in the process of evicting squatters along the Bagmati River, and numerous families were rendered homeless. According to one local source, more than 10,000 settlers, some of whom had been there since the 1990s, occupied almost 75 ha of land. Squatter-migrants have been moving to the cities from impoverished rural hill areas since the early 1950s (Fears, 2012).

## Supportive environment

The Interim Constitution of 2007 defines the state's responsibility as being "to adopt a policy of providing economic and social security including lands to economically and socially backward classes including the landless, bonded labourers, tillers and shepherds [sic]" and states that "the State shall pursue a policy of making special provision based on positive discrimination to the minorities, landless, squatters, bonded labourers, the disabled, backward communities and sections, and the victims of conflict, including women, Dalits, indigenous tribes, Madheshi and Muslims [sic]."

A central-level Squatter Problem-Solving Commission was established on 6 December, 2011; it began working on 31 January, 2012. In addition, 25 district-level squatter problem-solving committees were established. The GoN introduced its Immediate Relief Programme in 2011 in order to support both landless and other citizens (MoF, 2012).

The Cooperative-Run Poultry and Pig Farming Programme was started in four pilot districts in 2008/09. It now operates in 26 districts, helping to raise the incomes, develop the skills, and enhance the capacities of Dalits, socio-economically marginalised communities, *janajatis*, women, squatters, and landless farmers (MoF, 2012).

A total of 287 freed *kamaiya* families had been provided with NRs. 150,000 each to procure land, and 1733 haliya families had received identity cards by 2011/12. Banks and financial institutions offered low-interest loans, some at the rate of just one percent, to Dalits, Badis<sup>9</sup>, *kamaiya*, *haliya*, conflict victims, single women and senior citizens (MoF, 2012).

The kamalari system saw girls, often from the Tharu indigenous group working in bonded labour arrangements that were often exploitative. It was abolished by a Supreme Court directive in 2004 and again by the government in 2013. The kamaiya and haliya are other systems of bonded labour, both abolished in 2001.

<sup>9</sup> The Badi are an ethnic group many of whose women were once involved in commercial sex work.

The government acknowledged that slums and squatter settlements are a concern in the National Shelter Policy of 1996, the National Urban Policy of 2007, and the Tenth Development Plan (2001/02–2006/07). It has proposed constructing cost-effective shelters, providing basic services and facilities and even offering grants for the provision of shelters. The revised National Shelter Policy of 2009, which is yet to be approved by the government, calls for managing slums and squatter settlements by formalising them (MPPW, 2009).

### **Constraints and challenges**

Numerous policies including central-level Squatter Problem-Solving Commission were not implemented at the local level for three key reasons: the lack of ministerial-level cooperation, the absence of clear-cut guidelines, and limited organizational impetus. While NGOs have tried to improve the lives of slum dwellers and squatter, often with support from donor agencies, their efforts have been sporadic and they have not institutionalised them; as a result, they have failed to produce any tangible changes (Shrestha, 2013).

The rapid growth of slum and squatter communities could create a major threat to society in the near future if it is not tackled now. Such communities are highly vulnerable to natural and environmental hazards at different levels, from local to national, due to their poverty, poor living and working environments and exposure. They feel, very strongly, that they are socially excluded.

Slums and squatter settlements are seen as a local problem, but the root causes of their existence lie at the national level.

To prevent the future formation of such settlements in future, specific nationallevel policies must be adopted, not only to decentralise economic activity but also to include the urban poor in land and housing development programmes. To overcome the hurdle of inadequate investment in slums and squatter settlements, financial options should be made easily accessible and special funds for upgrading settlements and resettling squatters should be allocated (Shrestha, 2013). In addition, the high cost of living, unemployment, the failure to address land and housing demands, and poor governance, all contributory factors to the formation of slums and squatter settlements, must also be tackled (Shrestha, 2013).

## Addressing constraints and challenges

At the local level, squatter settlements should be classified based on detailed analyses. Those that are genuine should be upgraded and those that vulnerable, relocated. Slum dwellers and squatters should be empowered economically by providing training in income-generating activities and education. A third necessary measure is to ensure that is local-level institutions (public organisations, NGOs and households) work in coordination with national-level agencies. In Kathmandu Valley, NGOs and local communities have carried out physical improvements of slums and squatter settlements, their residents still have major problems accessing sufficient water, disposing of solid waste, and sanitation and it is unlikely that they will benefit from current plans to privatise water supply. In addition, they are at risk of eviction because they lack secure tenure (Shrestha, 2013).





# DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT

### Official development assistance

Goal 8. Develop a global partnership for development

Description	2001/ 02	2002/ 03	2000/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10	2010/ 11
Total foreign aid utilisation (NRS billion)	14.38	15.88	18.91	23.66	22.02	25.85	29.30	36.35	49.77	58.00
Share in GDP (%)	3.13	3.23	3.52	4.01	3.37	3.55	3.58	3.66	4.25	4.24
Share in total government expenditure (%)	17.96	18.91	21.14	23.07	19.88	19.35	18.16	16.54	19.17	19.64
Share in development expenditure (%)	58.07	71.06	81.89	86.53	74.45	65.08	54.75	49.73	55.15	53.80

Sources: MoF (2011); MoF (2012a)

### Status and trends

Total foreign aid utilisation has increased significantly since the last MDG progress report, that of 2010, from NRs. 36.35 billion in 2008/2009 to NRs. 58.00 billion in 2010/11, as has the share of foreign aid in GDP, which rose from 3.66 percent to 4.24 percent in the same period (MoF, 2011). Similarly, the share of foreign aid in the total government expenditure rose from 16.54 percent to 19.64 percent, and its share in development expenditure (classified as capital expenditure in the Economic Surveys released by the Ministry of Finance) increased from 49.73 percent to 53.80 percent. Its share in development

opment expenditure, however, declined from 55.15 percent in 2009/10 to 53.8 percent in the year 2010/11.

The stability of, and even slight decline in, the share of foreign aid in the GDP over the last two years is encouraging, implying, as it does, that GDP is increasing and dependency on foreign aid decreasing. The decline in the share of foreign aid in the total development expenditure is also a positive indication of a decline.

However, development cooperation reports indicate that there was a marginal rise in the share of loans in the total disbursement over last two years, from

24.3 percent in 2010/11 to 25 percent in 2011/12. Also discouraging is the fact that "compared to the previous fiscal year, foreign grants in the year 2010/11 declined by 7.9 percent whereas loan amount increased by 57 percent [sic]" (MoF, 2013, p. 62).

Most foreign aid, 62.70 percent, is channeled into the social sector. Over the last three surveys however, this proportion has declined gradually from a peak of 67.94 percent in 2008/09 to 62.70 per-

cent in 2010/11. The share of foreign aid in the agriculture, forestry and irrigation sector also declined (from 6.3 percent to 5.1 percent) as did aid to the trade and industry sector, where, worryingly, it has virtually disappeared. The only sector which, gained funds was the transport, electricity and communication sector, whose share increased from 17.32 percent in 2009/10 to 25.60 percent in 2010/11. This increase should be seen as a movement towards a more positive direction of foreign aid utilisation.

Table 8.1. Sectoral distribution of foreign aid

Description	2001/ 02	2002/ 03	2000/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10	2010/ 11
Agriculture, forestry and irrigation (%)	22.84	13.71	12.85	10.97	10.87	14.39	13.17	6.30	6.20	5.10
Transport, electricity and communication (%)	41.06	48.94	40.03	41.68	32.13	25.76	22.90	17.32	23.70	25.60
Trade and industry (%)	2.56	2.53	0.78	0.52	0.48	0.46	0.27	0.44	0.70	0.00
Social sector (%)	32.57	33.50	46.16	45.43	50.84	58.71	62.09	67.94	66.50	62.70
Others (%)	0.96	1.33	0.19	1.40	5.88	0.67	1.57	8.00	3.00	6.60

Sources: MoF (2011); MoF (2012a).

Table 8.2. Foreign aid disbursement as a proportion of foreign aid commitment

Description	2001/ 02	2002/ 03	2000/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10	2010/ 11
Total aid (%)	43.29	36.77	79.67	62.01	105.34	69.83	59.57	75.77	51.52	54.66
Multilateral aid (%)	65.65	20.94	63.81	85.23	233.17	48.91	52.92	130.02	45	43.28
Bilateral aid (%)	31.51	65.6	109.6	43.49	51.9	92.66	77.88	34.31	85.13	81.24

Sources: MoF (2011); MoF (2012a).

Table 8.3. Aid-for-trade flows (in thousand USD, 2009 constant rates)

Aid for trade		Commitments			
	2002-2005 avg.	2009	2009		
Trade policy and regulations	84	2366	494		
Economic infrastructure	76,347	227,273	118,959		
Building productive capacity	93,930	62,963	54,100		
Trade development marker		32,540	11,008		
Trade-related adjustment					
Total aid for trade	170,361	292,501	173,533		
Aid for trade per capita (USD)	6	10	6		

 $\textbf{Sources:} \ World \ Trade \ Organisation \ \& \ Organisation \ for \ Economic \ Cooperation \ and \ Development \ \ (2011).$ 

One topic of current debate regarding the post-MDG development agenda is centered around supply-side constraints on trade for developing and least developed countries. Since foreign exchange constraints are a significant barrier to growth and development, there is an immediate need to take appropriate action to improve the flow of aid into both the agricultural and the trade and industry sectors. Since two-thirds of Nepalis still depend directly on the agriculture, the development of this sector will result in an increase in the demand for wage-goods in the industrial sector, thereby boosting growth in both sectors. Unfortunately, however, in recent years increasingly less foreign aid, which comprises 53 percent of the total development expenditure, has been channeled into agriculture.

The utilisation of funds as a proportion of the total funds committed has decreased dramatically. The decline is probably due mainly to the massive increase in commitment since, in real terms, the utilisation of funds has risen. Total aid commitment more than doubled from NRs. 47.98 billion in 2008/09 to NRs. 96.91 billion in 2009/10 and then increased an additional 10 percent to NRs. 106.11 billion in 2010/11. There was also a similar rise in multilateral aid (from NRs. 20.78 billion to NRs. 59.71 billion to NRs. 74.28 billion) in the same time period though bilateral assistance declined slightly

between 2008/09 and 2009/10 (from NRs. 27.2 billion to NRs. 26.9 billion) before picking up to NRs. 31.82 billion in 2010/11. The consequence of the rise in multilateral funds can be seen in its poor disbursement, which declined 130.02 percent in 2008/09 to just 43.28 percent in 2010/11. In contrast, the disbursement of bilateral aid increased from just about one-third to over 80 percent in the same time period.

Of the total overseas development assistance committed to Nepal, 30.8 percent was aid for trade. A comparative analysis of trade flows suggests that aid commitments for building productive capacities has declined significantly in both relative and absolute terms but that there has been a proportionate increase in aid commitments for economic infrastructure. There has been no significant change in disbursement.

This development is reflected in the dramatic rise in aid for trade for the transport and storage sector (rising from 18.2 percent to 45.7 percent) between 2009/10 and 2010/11 and the equally drastic fall in investment in the agriculture, forestry and fishing sector (from 47.3 percent to 13.5 percent). Investments in electricity generation remained stable at around 30 percent. While the rise in investment in infrastructure is encouraging, the fall in investment in agriculture in what is a primarily agrarian

Table 8.4. Proportional distribution of aid for trade

	Comm	itment	Disbursement		
	2007	2009	2007	2009	
Trade policies and regulations	0.53	0.81	0.90	0.28	
Economic infrastructure	49.62	77.67	71.27	68.54	
Building productive capacity	53.41	21.53	27.83	31.17	
Trade development marker	0.00	11.12	0.00	6.34	
Trade-related adjustment	0.00	0.00	0.00	0.00	
Total aid for trade	100.00	100.00	100.00	100.00	

Sources: World Trade Organisation & Organisation for Economic Cooperation and Development (2009 and 2011).

society is cause for concern. The rise in aid for trade in the industrial sector is far more positive: from not even one percent (0.6 percent) of the total aid for trade in 2007 it grew to almost 4 percent in 2009. The cost of trade protection measures imposed by OECD members is far higher than the benefits received as aid for trade. The failure of the Doha development round in achieving a free and more equitable trade environment has been a disappointing outcome for de-

veloping nations around the world, including Nepal. Many of the indicators in Table 8.5 are based on a one-time national report on compliance with the Paris Declaration published in 2005. Since then, the MoF has published an annual aid effectiveness report, which includes aid-effectiveness indicators of its own choosing. In addition, the MoF publishes development cooperation reports which also highlight aid effectiveness in Nepal.

### **Debt sustainability**

Table 8.5. Aid effectiveness

Indicators	Res	ults
	2010/11	2011/12
Aid in budget (%)	70	77
Share of grants and loans (%)	81.3	85
Use of country public financial management system (%)	54	58
Share of national projects (%)	50	59
Disbursement (%)		
<ol> <li>Project support</li> <li>Sector-wise approach</li> <li>Programme support</li> <li>Humanitarian assistance</li> <li>Other</li> </ol>	63.1 21.1 12.9 2.9	55 22 18 4
Alignment of aid with the TYP (%)		
Social development     Infrastructural development     Macro- and micro-economic development	40 23 27	40 29.9 19.3

Sources: MoF (2012b): MoF (2013).

The volatility of the changes in aid on budget over the three years renders any inter-temporal analysis difficult. However, since the last survey, both the share of aid in the total budget and the share of loans in aid have increased. These increases are both problematic in the long run since they increase the burden of interest and dependency on aid. The increases in the proportion of aid in project support and the sector-wise approach are positive developments since they mean that accountability for aid and the involvement of the state in deciding the fate of aid have both

risen. These developments will, in turn, increase the government's independence in formulating development policy and boost coordination with its donors.

Over the last decade, the share of loans in capital expenditure has declined fairly steadily from 61 to 51 percent. In the last year, however, there was a slight, anomalous increase in the share of loans in capital expenditure, from 45.5 percent in 2009/10 to 50.7 percent in 2010/11. Because the share of grants in the total external aid has increased, this increase

**Table 8.6.** Share of loans in capital expenditure

	2009/10	2010/11
Total loan (%)	45.52	50.68
External loan (%)	12.40	11.25
Internal loan (%)	33.12	39.43

Sources: MoF (2012)

Table 8.7. External debt situation in Nepal

	2009/ 10	2010/ 11	2011/ 12
Total outstanding debt/GDP (%)	36.9	30.3	32.7
Outstanding domestic debt/GDP (%)	15.4	11.3	12.9
Outstanding foreign debt/GDP (%)	21.5	19.0	19.8
Debt-to-servicing ratio (%)	2.4	2.2	2.3

Sources: MoF (2012).

is attributable to internal loans; in fact, while the share of internal loans increased (from 33.1 percent to 39.4 percent), that of external loans actually declined (from 12.4 percent to 11.3 percent). This rise is the share of loans in capital expenditure is

reflected in the rise in debt-to-GDP ratio.

Notwithstanding a marginal increase in the past few years, the spectacular fall in the debt-to-GDP ratio, from 60 percent in 2002/03 to 30 percent in 2011/12, is an extremely welcome development. This decline is largely attributable to the steady decline in outstanding foreign debt-to-GDP ratio, which fell from over 45 percent to less than 20 percent in the same period. The reason for this latter decline is primarily the increase in aid received as grants instead of loans. The domestic debt-to-GDP ratio has also declined over the years.

The decline in the outstanding debt-to-GDP ratio is a positive development for two key reasons: a) the cost of servicing the loan has declined in absolute terms (the debt service as a percentage of recurrent expenditure has more than halved over the last decade) and b) the confidence of the creditors has risen, leading to lower interest rates and greater bargaining power for the government.



## THE UNFINISHED BUSINESS OF THE MDGS AND EMERGING PRIORITIES BEYOND 2015

epal has made significant progress in achieving its MDGs. In fact, given the difficult context a decade-long armed conflict, political instability, and unfinished national political agenda regarding peace-building, constitution-writing, and state-restructuring its achievements should be considered remarkable. Its targets for poverty and hunger, universal primary education, gender equality and women's empowerment, child mortality, and maternal health are likely to be achieved, while those for HIV/AIDs, malaria and other diseases, environmental sustainability, and global partnership are unlikely to be achieved in totality.

# Priorities until 2015

## 1. Poverty and hunger

Though the rate of poverty has gone down significantly, and the gap between the rich and the poor is narrowing, over 2.7 million people (23.82 percent) Nepalis still live in abject poverty and, alarmingly, the rate of decline in urban poverty

is slower than that in rural poverty. Also of concern is the fact that the economy is dependent on remittances and that, because Nepal lacks a productive base, increasing the level of employment in the near future is virtually impossible.

The following themes should become primary priorities for the future:

- Sustain and consolidate past achievements in reducing poverty and hunger.
- Reduce disparities in poverty and nutrition across regions and social groups by continuing to implement successful, targeted programmes and introducing new ones which build on past experience.
- Invest in agriculture to increase food production and food security and reduce malnutrition. Encourage and support the modernisation of agriculture to make this sector attractive to educated youth.
- Encourage and create an environment in which the private sector can take the lead in employment generation.
- Encourage civil society organisations to engage in advocacy and other activities in which they have a comparative advantage.

## 2. Universal primary education

While the status of primary education has improved significantly over the last two decades and gender parity has been achieved in the first grade, retention and repetition are significant problems, there are still hundreds of thousands of out-of-school children, and parity is far from being achieved in the fifth grade. In addition, the literacy rate of youth (15-24-year-olds), at 88.6 percent, is far from universal.

To address these problems, Nepal's immediate and long-term agenda should include the following initiatives:

- Retain students in primary education by applying learning from past experiences and introducing innovative approaches that address the reasons for both attrition and repetition.
- Enroll children from poor households in school while simultaneously linking their parents and/or guardians to economic safety-net programmes.
- Design targeted interventions to mainstream out-of-school children.
- Re-engineer literacy interventions to make them more effective.

## 3. Gender equality and women empowerment

Nepal's progress in meeting MDG 3, the promotion of gender equality and women empowerment, is fair: it has already met its targets for the ratio of girls to boys in both primary and secondary education, but it is unlikely to meet its targets for either the ratio of girls to boys in tertiary education or the ratio of literate women aged 15-24 to literate men of the same age.

To maintain gender parity at the primary and secondary levels and achieve it at the

tertiary level, the government must allocate more financial and human resources toward continuing to implement its effective programmes and introduce focused policies that address both the financial and security issues of older girl students. It should provide the ultra-poor with scholarships and living subsidies and the poor with soft loans. To increase the ratio of literate women to men, it needs to introduce an incentive component to its literacy programme.

The following initiatives are needed.

- Continue providing incentives (scholarships, cash allowances, packets of vegetable oil, midday meals) to girls who attend school in order to sustain gender parity.
- Launch programmes with incentives (quotas for admission, scholarships, living subsidies, soft loans) in order to enhance girls' participation in tertiary education.
- Launch mass literacy programmes with incentives in order to achieve parity in literacy rates.
- Continue to provide incentives and reserve places for women in education, training, and employment opportunities and increase resource allocation to that end.
- Establish an advocacy programme to persuade political parties to ensure that one-third of their members are women and to see that the same proportion of seats is reserved in the national legislative body.
- Ensure that women's economic contributions through domestic work and agriculture are reflected in the national GDP.
- Enhance men's engagement in activities designed to eliminate socio-cultural discrimination against women and promote gender equality and women's empowerment.

- Improve institutional capacities to address gender-based violence and adopt a policy of zero tolerance.
- Adopt the goal of reducing genderbased violence by half with in a fixed timeframe.
- Train youths to foster social harmony among children, youths, adults and the elderly

## 4 and 5. Child and maternal health

Progress thus far suggests that Nepal's child and maternal health-related MDGs are achievable. The real challenge is to scale up what works, continually improve effectiveness and accelerate progress. There is also a need to better target the hardest to reach segment of the population, those who have been overlooked in the past. This group includes, the ultrapoor and those disadvantaged because of their sex, age, ethnicity, disability, or geographical location.

New targets for major child and maternal health indicators should be established and some altogether new indicators added. In addition, since achievements are currently not uniform across either population groups or ecological or development regions, these targets should be disaggregated.

### **Child mortality**

- ⇒ Set new targets for the IMR and U5MR.
- Design indicators disaggregated by population groups and development and ecological regions.
- Address the emergence of new disease patterns associated with climate change, notably HIV/AIDS, pneumonia, and hepatitis A, taking into consideration difficulties in providing child health services.

#### Maternal health

- Set new targets for the MMR, the proportion of births attended by SBAs, CPR, and the adolescent birth rate.
- Add several new indicators, including the rate of unmet need for family planning among couples currently living together, the proportion of deliveries in health facilities, the percentage of ever-married women aged 15-49 with a low body mass index (BMI<18.5), and total fertility rate.</p>
- Establish disaggregated targets that take into account the current disparities across demographic and geographical groups.

## 6. HIV/AIDS, malaria, TB and other diseases

Climate change and the emergence of new diseases, notably HIV and TB co-infection and non-communicable diseases, will add a new and difficult dimension to dealing with HIV/AIDS, malaria and TB. Doing so will require adopting at least the following initiatives.

- Develop early warning indicators so that people who are HIV positive or have TB can be traced easily if they become lost to follow-up or go missing
- Introduce malaria vector surveillance indicators so that the link between mosquitoes and disease causation and the patterns of insecticide resistance can be monitored periodically and the impact of climate change assessed.
- Address the emergence of new diseases, notably HIV/AIDS and TB coinfection and non-communicable diseases as well as the new and difficult dimension that climate change will pose in treating HIV/AIDS, malaria, and TB.

Introduce new targets oriented toward youths (15-24-year-olds), including condom use at the last high-risk sexual encounter and comprehensive knowledge of HIV/AIDS.

## 7. Environmental sustainability

Meeting the needs of a growing population for sustainable energy is one of the biggest challenges facing Nepal, especially in light of the need to reduce poverty and address climate change.

Nepal must adopt improved and affordable energy-efficient technology if it is to reduce poverty and sustain prosperity. Its demand for energy should be increasingly met by renewable sources in order to limit the adverse impact on the environment. It should replace out-dated infrastructure and technologies gradually and invest in efficient energy usage, renewable energy sources, and minimally carbon-intensive technologies; all areas of investment which promise both financial and environmental benefits.

The government is committed to phasing out inefficient fossil fuel subsidies. In embracing renewable-energy technology, it should provide targeted support, perhaps in the nature of subsidies, to poor and marginalised communities and rural areas. Providing people with access to modern and reliable energy to cook and light their homes has enormous social, economic, and environmental benefits. The government can use a combination of taxation, subsidy, regulation and partnership to encourage innovations in clean energy.

Although access to safe drinking water is a basic human right, many Nepalis have access to only basic, not medium- or highquality water supply services, and continuous access is rarely guaranteed. The 2015 MDG targets focus on improving the quality of the sources of water collection and on reducing the amount of time spent collecting water. Nepal must now ensure that safe drinking water is universally accessible nearby, or at, schools and homes, especially those located in slums and squatter settlements, and that tourists, too, are adequately provisioned.

Investments in safe drinking water should complement investments in sanitation and hygiene so that Nepal can reduce the currently high incidence of diarrhoeal diseases. The nation must expand sanitation infrastructure and offer more public services as well as establish, or strengthen, national, sub-national and local policies regarding the collection, recycling and usage of wastewater.

## 8. Global partnership for development

- Increase the accessibility of Nepali products to Indian and overseas markets by reducing tariffs and, in the case of India, non-tariff barriers.
- Meet the estimated funding gap of over NRs. 451.4 billion (32.3 percent of the total NRs. 995.8 million needed) for the five years from 2011 to 2015, paying particular attention to those MDGs with the largest gaps: MDG 7, MDG 2 and MDG 1, in declining order (NPC & UNCT, 2010). The gaps by year are projected to be NRs. 40.7 billion in 2011, NRs. 58.4 billion in 2012, NRs. 87.5 billion in 2013, NRs. 132.9 billion in 2014 and NRs. 131.9 billion in 2015.
- Demonstrate higher development aid effectiveness in order to attract global funds in an environment made increasingly competitive by the global recession, and the burgeoning demand funds for climate change initiatives.

- Increase efforts to mobilise available resources optimally and to acquire international financial and technical support through better performance and economic diplomacy.
- Adopt forward-looking macroeconomic policies that promote sustainable development and lead to sustained, employment-centric, inclusive and equitable, broad-based economic growth; promote national food security strategies that strengthen support for smallholder farmers and contribute to poverty eradication; support participatory, community-led strategies in a decentralised fashion and align them with national development priorities and strategies; promote universal access to public and social services and provide social protection floors; and improve the capacity to deliver quality services equitably.

# Agenda beyond 2015

Nepal is making an unprecedented historical transition politically, economically and socially. It is no longer a traditional monarchy but a modern republic engaged in creating a federal structure of an, as yet unknown, number of autonomous states whose boundaries have yet to be determined. This change will likely create a new dynamic in the overall development of the country, making the development environment more competitive and progressive. Nepal expects to upgrade its status from a least developed country to a developing country within the next decade.

In the immediate and medium term, peacefully transitioning into and establishing a stable democratic state is Nepal's main concern and priority agenda. The country has yet to come up with a permanent solution to contentious politi-

cal issues, including the form of federalism, the nature of state restructuring and governance system to adopt, and how and if it will redistribute wealth. The ideological differences among the political forces that will determine these issues are significant, but a new constituent assembly election is scheduled for 19 November, 2013 and it is expected to break the current deadlock, one which led to the dissolution of the previous constituent assembly.

The MDGs for 2015 address poverty, employment and hunger, quality and equity in universal education, gender equality and women's empowerment, neonatal mortality, maternal health, universal reproductive health, HIV/AIDS, malaria, TB, non-communicable diseases (hypertension, cancer, diabetes, obesity, and the like), environmental sustainability, and the global partnership for development. These goals are basic human development goals appropriate for countries of widely varying contexts. Nepal, by reorienting its policies; concentrating national and international resources; and mobilising state, private sector and civil society organisations, has been able to achieve most of the targets it set in 2000 and, with a couple of exceptions, is likely to achieve the remaining targets by 2015. In 2010 it adopted a national plan, sector-based strategies, and targeted programmes and carried out a resource needs assessment to ensure that it would stay on track to meet those targets. If the underlying assumptions regarding the context of implementation, and the resources allocated for implementation, remain as projected, it is likely that the remaining targets will, in fact, be met.

At the same time as it identifies and addresses the gaps in target-setting, implementation, and resource allocation, Nepal should also start thinking about, and planning for, beyond 2015, focusing primarily on economic growth, equity, social security and inclusion. It must examine

its old targets carefully, redefine them in light of progress, and establish new targets so that it will achieve developing-country status within the next decade (NPC, 2011).

In terms of education, Nepal must plan to go beyond the universalisation of primary education; it must increase retention and reduce repetition rates and achieve universal literacy. It will need to formulate specific programmes and determine a timeline to bring all the approximately 800,000-1,000,000 out-of-school children into the education system. Ensuring learning achievement targets are met will also demand major interventions. More effort is needed to increase the literacy rate and to ensure that literacy programme participants develope good skills. The slogan "access to quality education" would be a fitting one for Nepal beyond 2015.

There is an urgent need to conduct inclusive national consultations in order to draw up a successor agreement and, in the final two-and-a-half years of MDG implementation, to ensure that Nepal's poorest people, particularly women and children, are not left behind in ongoing efforts to meet the current commitments.

Synergy among the MDGs needs to be increased, particularly among the three health-related MDGs, reducing child mortality (MDG 4), improving maternal health (MDG 5), and combating HIV/AIDS, malaria, TB, and other diseases (MDG 6), as they can make a far more significant contribution to development if they are integrated. While most health-related indicators are improving, the fact that they depend on external funding raises questions about their sustainability.

Most of the health-related MDGs have already been achieved or are on track to being achieved. The real challenge is to sustain and scale up what works, continually improve effectiveness and accelerate progress. There is also a need to better target the hardest–to-reach segment of the population, those who have been overlooked in the past. This group includes the ultrapoor and those disadvantaged because of their sex, age, ethnicity, disability, or geographical location.

Nepal's energy crisis continues to escalate because it has failed to attain any notable success in boosting its hydroelectricity generation (MoF, 2012) and because there was insufficient funding to subsidise home solar energy. In addition the construction of most of the planned micro and mini hydro projects was delayed (MoF, 2012).

Nepal's agenda beyound 2015 should include consolidating and sustaining its MDG achievements so far, accelerating its pace in meeting unmet targets and addressing gaps. The new agenda should be derived from the national objectives in the current TYP (2013/14–2015/16) and other, longer-term plans.

Specifically, the following eight agenda items should be given top priority:

#### **Good governance**

The decade-long armed conflict and the prolonged political transition since the peace agreement was signed in 2006 have contributed to a serious erosion of the quality of governance in Nepal. The state will need to strengthen the governance reform agenda while working hard to establish a democratic and stable government. In particular, it will need to provide a sense of stability, continuity and predictability in the policy regime.

### Addressing disparity and inequality

While promising advancements have been made over the last 15 years, significant disparities amongst social groups, genders, development and ecological regions persist. In order to ensure that MDG achievements are real for all segments of the population, the government must adopt strategies tailored to addressing these disparities.

#### **Urbanisation**

Nepal is urbanising rapidly, a fact that must be taken into account when addressing the challenges to and maximising the opportunities for economic growth. Currently 17 percent of Nepalis live in urban areas. While this proportion is low compared to that of other countries in South Asia, its rate of urbanisation, at seven percent, is high, and some studies project that the urban population of Nepal will surpass 50 percent by 2030. Urbanisation is likely to pose new and serious challenges regarding employment, poverty reduction, environmental sustainability, and the quality of services and settlements. Unplanned, urbanisation will slow down the rates of both consumptive and multi-dimensional poverty reduction. Building sustainable, clean, investment-friendly, inclusive and peaceful cities should be a priority in the decades to come.

## Remitance, labour migration and national development

Over 3 million Nepalese people work abroad and remittance contributes almost 24% of total GDP of the country. The trend toward foreign employment continues to increase. There is a need for a much deeper and more comprehensive understanding of this phenomenon and its important social, economic and political dimensions if it can be harnessed for use in national development beyond 2015.

#### **Productive employment**

Progress in MDG2 presents an encouraging picture. However, significant gaps be-

tween the targets and achievements in all three indicators–NER, survival rate and literacy–point to the need to accelerate the implementation of successful policies and programmes and make amendments to address disparities in terms of gender, social groups, and development regions. Nepal should operationalise the concept of "zero tolerance to illiteracy" and implement educational reforms designed to ensure that education has a technical component that leads toward productive employment.

## Zero tolerance to gender-based violence

The positive trends in GPIs do not represent the true state of wellbeing of women in Nepal. In order to promote gender equality and women's empowerment, the rule of law must be strengthened and there should be zero tolerance for gender-based violence. Only when there is peace and security, law and order, and a gender-friendly environment well supported by financial and human resources will there be space for women to live in dignity.

New targets for beyond 2015 should ensure not just gender parity but also good-quality outcomes for girls and women. There should be gender-specific targets such as the share of women who own property and women's contribution to the national GDP.

Cutting gender-based violence in half should be made a new indicator of progress toward zero tolerance of genderbased violence.

## Equitable access to quality health care services

It has been widely recognized that MDG achievements thus far have not been uniform. Moreover, there are major concerns regarding equitable access to quality health care services for all citizens of Ne-

pal. It is important to note that barriers associated with being poor and excluded (and female) occur across all social identities. Free public health services are often not entirely free, and patients always face other, indirect costs. Numerous people, at all income levels, spend a disproportionate share of their income on out-of-pocket payments each year. Noncommunicable diseases (hypertension, cancer, diabetics, obesity, etc.) along with changing disease pattern due to climate change and road traffic accidents/injuries are increasing daily. It was estimated that road traffic accidents in Nepal have increased fourfold in the last decade. leading to 1,734 fatalities nationwide in 2009-10. In this context, Nepal should adopt innovative approaches to improving the quality, responsiveness, and delivery of peripheral health services to increase the coverage of poor and underserved people. Access should be considered on the grounds of social permission, affordability, and distance. Moreover, Nepal must address issues related to financial risk protection in order to protect against severe financial difficulties in the event of illness. This would allow Nepal to embrace the global concept of universal health coverage, where there would be no out-of pocket payments that exceed a given threshold of affordability - usually set at zero for the poorest and most disadvantaged people.

### Adaptation to climate change

Nepal's development policies do not adequately take into account either climate change or climate risks, global phenomena with very diverse local-level trends and impacts such as temperature rises; floods; variations in runoffs; glacial lake outburst floods; and sedimentation.

Adaptive and mitigative measures that need to be undertaken include introducing multiple units in power plants, promoting alternative sources of energy supply, and conducting local-level mass awareness campaigns about climate change and its impacts.

Nepal lacks a continuous and long series of data as well as sufficient technical support and expertise fielding the field of climate change and will find conducting an impact assessment challenging.

Regular research and development activities will guide local communities in selecting the best mitigative and/or adaptive measures available for coping with the impacts of climate change on the sanitation and hygiene sector.

The imminent threat of global climate change on species and ecosystems must be addressed. The managers of protected areas and conservation biologists need to identify sensitive species and susceptible ecosystems and use internationally recognised mechanisms to monitor them .

Climate change is expected to increase the existing level of gender inequality as the predicted depletion of natural resources, including water and fuel wood, and the consequent decrease in agricultural productivity, is likely to increase women's workload, place additional burdens on their health and reduce the time they have to participate in decision-making processes and income generating activities (UN Women, 2013).

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