

ELEVENTH ROUND TABLE MEETING

**TURNING VISION INTO REALITY:
THE DEVELOPMENT
CHALLENGES CONFRONTING BHUTAN**

1-2 September, 2011

Thimphu, Bhutan

Acknowledgement

The Gross National Happiness Commission (GNHC) extends deep appreciation to the United Nations Development Programme (UNDP) for its support in the preparation of this document
<http://rtm.gnhc.gov.bt>

Copyright © Gross National Happiness Commission 2011

All rights reserved

Royal Government of Bhutan

ISBN: 978-99936-769-4-2

Published by Gross National Happiness Commission

Design & Layout: FINAL TOUCH



TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
Chapter 1: Review of Socio-Economic Progress Midway through the Tenth Plan	7
1.1 GNH and Bhutan Vision 2020: The National Development Framework	8
1.2 Macroeconomic Context	10
1.2.1 Growth and Structural Changes in the Economy	10
1.2.1.1 <i>Investment and Savings</i>	11
1.2.1.2 <i>Inflation</i>	11
1.2.1.3 <i>Domestic Revenues</i>	12
1.2.1.4 <i>Public Expenditures</i>	13
1.2.1.5 <i>Overall Balance of Payments, Trade and Reserves</i>	14
1.2.1.6 <i>Debt</i> ¹⁴	
1.2.1.7 <i>A Macro-economic Perspective to 2020</i>	15
1.2.2 Challenges of Economic Vulnerability	16
1.2.2.1 <i>Geographical Constraints</i>	16
1.2.2.2 <i>Weak Growth in the Primary Sector</i>	17
1.2.2.3 <i>Low Levels of Value Addition in the Manufacturing Sector</i>	18
1.2.2.4 <i>Economic Openness and High Export Concentration</i>	19
1.2.2.5 <i>Natural Hazards and the Impact of Climate Change</i>	20
1.2.2.6 <i>Assessing Economic Vulnerability</i>	22
1.3 Status of Progress towards the MDGs	23
1.4 Preservation and Promotion of Culture	29
1.5 Governance Developments	31
1.5.1 <i>Decentralization</i>	31
1.5.2 <i>Public Sector Management</i>	32
1.5.3 <i>Civil Society and Media</i>	33
Chapter 2: The Challenge of Poverty and Underdevelopment in Rural Bhutan	35
2.1 Introduction	36
2.1.1 <i>Income Poverty Incidence and its Rural Dimension</i>	37
2.1.2 <i>Food Poverty</i>	38
2.1.3 <i>Spatial Disparities</i>	39
2.2 Drivers of Poverty Reduction and Rural Development	40
2.2.1 <i>Road Access</i>	40

2.2.2	<i>Access to Electricity</i>	43
2.2.3	<i>Educational Attainment</i>	44
2.2.4	<i>Health</i>	45
2.3	Multi-dimensional Poverty	46
2.4	Targeted Poverty Interventions	48
2.4.1	<i>The Rural Economy Advancement Programme (REAP)</i>	48
2.4.2	<i>Land Welfare</i>	49
Chapter 3:	Sustainable Livelihoods and Employment	51
3.1	Introduction	52
3.2	Challenges of Ensuring Sustainable Livelihoods and Employment	52
3.2.1	<i>Food Security and Food Self Sufficiency</i>	53
3.2.2	<i>Human Wildlife Conflict Impact on Rural Livelihoods</i>	55
3.2.3	<i>Impact of Climate Change on Livelihoods</i>	57
3.3	Employment Challenges	59
3.3.1	<i>Labor Market Context</i>	59
3.3.2	<i>Underemployment</i>	61
3.3.3	<i>Employment Focus by Special Groups: Women and Youth</i>	62
Chapter 4:	Financing Development and Aid Effectiveness	65
4.1	<i>Trends in External Inflows (ODA and FDI)</i>	66
4.2	Trends in External Inflows (ODA and FDI)	66
4.3	External Debt and Debt Servicing	68
4.4	Resource Mobilization Challenges	68
4.4.1	<i>MDG Financing</i>	69
4.4.2	<i>Climate Change Financing</i>	70
4.5	Aid Effectiveness	70
4.5.1	Ownership and Alignment with National Development Strategies	71
4.5.2	Accountability	72
4.5.3	External Assessment of Development Results	74
4.5.3.1	<i>Macro-economic Performance</i>	74
4.5.3.2	<i>Social Development</i>	75
4.5.3.3	<i>Good Governance</i>	77
4.6	Conclusion	81
References		82
Annexes:		
Annex I:	Bhutan's Progress Towards the MDGs	84
Annex II:	HDI by Dzongkhag	86
Annex III:	Bhutan Ranking within the ADB's CPA	88

Acronyms

AIDS	Acquired Immune Deficiency Syndrome
AB	Administrative Burden
ACC	Anti Corruption Commission
ADB	Asian Development Bank
APF	Alternative Planning Framework
BLSS	Bhutan Living Standards Survey
BNFSS	Bhutan National Food Security Strategy
BMIS	Bhutan Multiple Indicator Survey
BPoA	Brussels Programme of Action
BoP	Balance of Payments
BPFSS	Budget Policy and Fiscal Framework Statement
BTI	Bertelsmann Transformation Index (BTI)
CPA	Country Performance Assessment
CPIA	Country Policy and Institutional Assessment
DHI	Druk Holding and Investments
DYT	Dzongkhag Yargye Tsogdue
GG	Good Governance
GLOF	Glacial Lake Outburst Flood
GNH	Gross National Happiness
GNHC	Gross National Happiness Commission
GNHI	Gross National Happiness Index
GPER	Gross Primary Enrollment Rate
GYT	Geog Yargye Tsogchung
EC	European Commission
EPI	Expanded Programme of Immunization
HWC	Human Wildlife Conflict
ICA	Investment Climate Assessment
ICT	Information Communications Technology
IFI	International Financial Institutions
IP	Integrity Pact
IPSDS	Improving Public Service Delivery Systems
IMR	Infant Mortality Rate
IRAI	IDA Resource Allocation Index
LDC	Least Developed Country
LFPR	Labor Force Participation Rate
LG	Local Government
NLFS	National Labor Force Survey

NRB	Non-Resident Bhutanese
MPI	Multidimensional Poverty Index
MCH	Maternal and Child Health
MDGs	Millennium Development Goals
MDTs	Millennium Development Targets
MMR	Maternal Mortality Ratio
MTR	Mid Term Review
NEC	National Environment Commission
NER	Net Enrollment Rate
NFE	Non Formal Education
NLFS	National Labor Force Survey
NNIYCFS	National Nutrition, Infant and Young Child Feeding Survey
NSB	National Statistics Bureau
Nu	Ngultrum
ODA	Official Development Assistance
PAC	Public Accounts Committee
PAR	Poverty Analysis Report
PFI	Press for Freedom Index
PHCB	Population and Housing Census Bhutan
PIT	Personal Income Tax
PVR	Poverty Vulnerability Indicators
RAA	Royal Audit Authority
REAP	Rural Economy Advancement Programme
RMA	Royal Monetary Authority
RGoB	Royal Government of Bhutan
RNFE	Rural Non-Farm Economy
RMA	Royal Monetary Authority of Bhutan
RTI	Right to Information
RWSS	Rural Water Supply and Sanitation
SDGs	SAARC Development Goals
U-5MR	Under-five Mortality Rate
UER	Unemployment Rate
UN	United Nations
UNDP	United Nations Development Programme
UNCAC	United Nations Convention Against Corruption
VAM	Vulnerability Assessment and Mapping
VTI	Vocational and Technical Institutions
WB	The World Bank



EXECUTIVE SUMMARY

The Round Table Meeting (RTM) for Bhutan is the most important forum for policy dialogue and aid coordination between the Royal Government and its development partners. Held once every two and a half years, the last RTM for Bhutan, the 10th, was held successfully in Thimphu, Bhutan, from 17th -18th February 2008. The 11th RTM (1st - 2nd September 2011) takes place at the midpoint in the implementation of the Tenth Five Year Plan and provides an opportune moment to take stock of development progress and review development challenges facing the country. That this is the first Plan to be implemented after the introduction of parliamentary democracy under the leadership of the first elected government makes it even more significant.

The preparation of the main RTM background document “Turning Vision into Reality: The Development Challenges Confronting Bhutan” for the 11th RTM for Bhutan (1st - 2nd September 2011) was undertaken under the auspices of a RTM Joint Task Force formed in February 2011 co-chaired by the Secretary, Gross National Happiness Commission, Royal Government of Bhutan and the Resident Representative, United Nations Development Programme. Extensive consultations were held with all stakeholders in the preparation of this background document, including the donor community.

Since the last RTM in 2008, Bhutan has continued to enjoy robust growth and rapid socio-economic development while ensuring the preservation of its rich cultural and environmental heritage. This progress in advancing sustainable development in Bhutan has been effectively underpinned by the Royal Government’s efforts to continually improve governance and enhance its quality. Additionally, while the institutions of democracy may be young and nascent, democracy in Bhutan has taken root firmly since the historic political transition in 2008. There are now effective checks and balances in place and a solid foundation has been laid for ensuring the rule of law and transparent governance. Moreover, notwithstanding the considerable challenges and constraints that Bhutan faces on numerous fronts, it is on track to achieve many of its Vision 2020 Goals and the development objectives and targets set in its Tenth Five Year Plan within the overarching development framework of maximizing Gross National Happiness (GNH). Sustained progress towards achieving these national objectives and various global compacts for sustainable development however will depend critically on the continued support, cooperation and goodwill from all of Bhutan’s development partners.

Chapter One reviews the state of progress on socio-economic development in Bhutan. The economy between 2005 and 2010 grew strongly at an average of 8.7% a year with inflation largely contained within 7% over that period. Economic growth has been sustained by the immense scale of savings and investment which has fundamentally altered the structure of the economy, transforming it from an essentially agrarian economy to a more service and industrial based one. Domestic revenues have been highly buoyant increasing at 19% a year on average since 2005 and constituted 22.4% of GDP in 2010. Notably, tax revenues have risen significantly over the years. Public expenditure patterns reveal a visibly pro-poor orientation with social sector allocations comprising more than a fifth (21%) of the total budget over the last decade. Sizeable allocations have also been set aside for economic and public services like agriculture, roads and communications that are vital drivers for poverty alleviation.

While Bhutan's trade deficit remains, the overall balance of payments position has been positive due to the significant external inflows of grants and loans that have led to a sizeable growth in gross international reserves that in December 2010 stood at US\$ 1,001.6 million. Even as public debt is quite high and stands at 50% of GDP as of March 2011, the risk of debt distress is deemed moderate in view of the fact that it is sustainable. Nevertheless, debt servicing remains a concern as it deeply constrains the financial space within which the Royal Government operates, particularly in the light of rapidly rising current expenditures on account of social sector spending.

Indicative economic forecasts beyond the Tenth Plan period are difficult to make but available projections are that Bhutan will continue to enjoy a robust period of growth at close to 9% annually spurred on by the addition of 10,000 MW of power by 2020. Achieving this would mean that Bhutan would have far exceeded the Vision 2020 target of 3,000 MW. While this would translate into sustained revenue growth, this is likely to be accompanied by equally rapidly growth in the current expenditure account. Debt is projected to average at about 60% of GDP in the period with debt service ratios at about 13%.

Notwithstanding these positive economic developments, Bhutan remains challenged by a high degree of economic vulnerability. This economic vulnerability essentially stems from its small size, remoteness and distance from global and regional markets, its landlocked situation, weak economies of scale compounded by a fledgling private sector and small domestic market, narrow economic base and vulnerability to natural disasters and climate induced hazards. Moreover, Bhutan's high dependence on a narrow range of exports and markets increases its susceptibility to volatility in external economic conditions and the risks associated with the lack of diversification.

Bhutan has made sustained progress towards meeting the Millennium Development Goals (MDGs) and the country remains on track to achieving most of its MDG goals and targets.

Significant advancements have been made in reducing poverty, scaling up enrollment in primary schools, securing gender parity in primary and secondary level education, lowering high levels of child and maternal mortality, reducing the incidence of communicable diseases and maintaining exemplary standards of environmental sustainability. However, there remain several issues and challenges that could affect the meeting of the MDGs in their entirety and with equity. For instance, while subsistence poverty remains quite low, it has been rising of late and food and nutritional security for many distant communities remains a chronic challenge. Moreover, even as Bhutan has successfully reduced acute malnutrition and underweight children to targeted levels, chronic malnutrition continue to affect around a third of all Bhutanese children. Finally, in keeping with the core spirit of GNH, there is the need to ensure that the MDGs are secured with equity and that the poorest and most marginalized groups in Bhutan share the benefits of development fully.

Additionally, while advancements in primary and secondary education have been rapid and highly encouraging, there are questions about the quality of education, student learning and the adequate development of cognitive skills, universally and across all schools. These are particularly pertinent within the context of Bhutan's strategic objective to strive for excellence in education towards fostering a knowledge based society. There are also a significant number of school age children out of the education system which is quite pronounced in some district which is highly relevant for poverty alleviation efforts given the strong co-relationship between educational attainment and poverty.

Other shortcomings that require attention relate to the low level of women in positions of decision making and national parliament, the rising trend of HIV/AIDS case detection and youth unemployment. Incorporating new parameters that define pit latrines without slabs as unimproved sanitation facilities, access to improved sanitation in Bhutan now stands at 58.4% which poses an extremely challenging task to attain targeted access levels of 83.5% by 2015. Finally, broad progress at the national level on many of the MDG indicators often masks considerable disparities that exist across *Dzongkhags* (Districts) and *Geogs* (Blocks) which are now more apparent than before with the increased availability of disaggregated data. As such, there are numerous development challenges that remain, particularly within the context of the enormous difficulties of bringing numerous vulnerable and isolated rural communities into the mainstream of development.

A major challenge in this regard pertains to the situation of rural poverty in Bhutan, which is elaborated in **Chapter Two**. The prevalence of any extent of poverty is deeply inimical and unacceptable within the values context of a GNH society and so the Royal Government is fully committed towards eradicating all forms of human deprivation. Concerted poverty alleviation efforts, sustained growth and a pro-poor budget have helped scale back income poverty in Bhutan by 8.5%age points to 23.2% between 2003 and 2007. This has been

accompanied by moderate reductions in the poverty gap and poverty severity ratios in both rural and urban areas while inequality has also declined for the years that data is available. However, poverty remains predominantly a phenomenon of rural Bhutan wherein the relative state of underdevelopment severely exacerbates the situation. The report highlights some of the key drivers pertinent for poverty reduction and rural development that include factors such as road and market access, availability of electricity, educational attainment and health. In particular, enhancing road access is highlighted as a strategic pathway for accelerating growth in the rural economy and reducing poverty under the Tenth Plan.

The Royal Government, to address poverty in a more holistic sense, is analyzing the multi-dimensional poverty situation in Bhutan to supplement its income poverty perspectives. This is fully in keeping within Bhutan's GNH values and Vision 2020 framework that strongly affirms the need to look at aspects of development and deprivation beyond mere income dimensions. A preliminary Multidimensional Poverty Index (MPI) model for Bhutan is presented that varies slightly from the global model on the basis of certain indicators selected and weights assigned. Efforts to further refine the model and attune it to Bhutan's GNH index are also underway as relevant data become available.

The MPI calculation for Bhutan for 2010 reflects that 25.8% of the population is multi dimensionally poor in four of the thirteen health, education and living standard indicators. The calculated MPI at the national level is 0.12¹ with an average intensity of deprivation at 0.45. The main contributors to multidimensional poverty are the indicators for schooling, cooking fuel and sanitation. Here too, as in the case of income poverty, there are significant spatial disparities between rural and urban areas as well as among districts. While there appears to be a clear relationship between income poverty and multidimensional poverty, the two however are not the same as exemplified by the case of *Gasa Dzongkhag* which has the highest level of multidimensional poverty but is among the districts with the lowest income poverty incidence.

Ensuring sustainable livelihoods and expanding decent employment is critically important if sustained progress is to be made in scaling back poverty levels and helping people stay out of poverty. This remains a major issue today in Bhutan given the highly capital intensive growth driven by sectors that have not generated adequate employment opportunities. The task of achieving full employment as targeted under the Tenth Plan is therefore a daunting one, particularly with relatively low growth rates in agriculture and the rural non-farm sectors. **Chapter Three** on Employment and Sustainable Livelihoods explores these issues.

¹ An MPI rating of 0.12 and multidimensional poverty intensity of 0.45 in comparison to other countries would place Bhutan's multi-dimensional poverty and intensity at a much lower level - i.e. it would be less multidimensionally poor - than for similar income and development level states. However, the comparison is not relevant as this national MPI uses Bhutan specific indicators and weights. Bhutan's MPI rating under the UNDP's Global HDR 2011 with a uniform indicator and weight basis would provide a more useful comparator when this measurement is published.

In particular, these involve addressing livelihood challenges in advancing food security and food self-sufficiency including managing human wildlife conflict, promoting cultural industries and mitigating the impact of climate change on livelihoods.

While labor force participation rates for both men and women have been increasing over the years, unemployment rates have also risen steadily, particularly for the youth. Young people in Bhutan account for 16.7% of the economically active population but constitute close to half of those unemployed. As such the unemployment situation affects youths disproportionately and this challenge is likely to exacerbate given that over 31,000 job seekers will enter the labor market by 2013, with a large number of them without the necessary set of skills or education demanded by the market. There is also sufficient reason to believe that underemployment is widely prevalent in Bhutan and that the poor and rural workers are most vulnerable in this regard which could affect their prospects to exit from and stay out of poverty. Apart from various employment hardships, about half of those employed do not have sufficient work to engage them year-round and work less than 30 hours a month, while others work at low levels of productivity or receive little or no remuneration.

Chapter Four on Financing Development and Aid Effectiveness outlines the trends in Bhutan's aid inflows and ongoing efforts to improve various aspects of aid effectiveness. In particular, an attempt is made to assess development results on the basis of non-biased evidence derived from external and independent sources. Broadly, these external assessments affirm that Bhutan is performing well on the macro-economic, social development and good governance fronts and that development assistance from the international community has been utilized effectively and judiciously. The assessments also clearly reflect the need for sustained inputs as numerous development challenges remain to be addressed.

A key issue raised in the final section of the chapter pertains to the medium and long term financing of development activities including the Millennium Development Goals and climate change adaptation and mitigation efforts. While the Royal Government will continue to scale up the mobilization of domestic resources including expanding the tax base, the projections are that this will likely fully cover only current expenditures for the next decade or so. As such, a large part of the capital investments to finance many of the development activities to address the above challenges will still require significant external resource inflows from development partners. The reasons are that while the long term macroeconomic prospects for Bhutan are undeniably bright based on anticipated returns from its hydropower investments, these will possibly yield significant dividends only after 2020, once several of the hydropower projects are fully commissioned. Even then, much of the hydropower revenues will flow back in the form of debt service repayments and resource constraints are likely to remain for some time. These are grim realities that must be factored in even as the Royal Government remains highly committed to achieving economic self-

reliance in the long run.

As such, any premature declines in aid inflows would be highly disruptive at a vital juncture when Bhutan is gearing up for the final push towards the important milestone dates of 2015 and 2020. This would severely diminish the financial space and compromise the opportunity to secure Bhutan's long term development goals. As it is, there are already many important programmes and activities across many sectors that are either unfunded or underfunded. Moreover, there is a genuine sense that Bhutan could possibly be at or near a tipping point in development and that many of its MDGs and its Vision 2020 Goals remain realistically within reach. The role of Bhutan's development partners perhaps assumes even greater importance in this critical phase of its development wherein significant challenges remain to be addressed and last mile development constraints overcome to help consolidate and cement past gains and achievements.

CHAPTER 1

**REVIEW OF SOCIO-ECONOMIC PROGRESS
MIDWAY THROUGH THE TENTH PLAN**

1.1 GNH AND BHUTAN VISION 2020: THE NATIONAL DEVELOPMENT FRAMEWORK

A review of development progress must not only take place in the context of the medium term outlook but frame it within the larger perspective of the long term national goals, as articulated in the Bhutan 2020: A Vision for Peace, Prosperity and Happiness. At the heart of this vision is the quest for a more holistic outcome of development, one that places people truly at the centre of development and locates human happiness and well being at the core of the development equation. This is the vision of Gross National Happiness (GNH), first propounded by the fourth King of Bhutan, His Majesty Jigme Singye Wangchuck, which has deeply anchored Bhutan's development efforts and is today enshrined in the Constitution as a core principle of state policy.

A key aspect of the development approach of GNH is the express intent to maintain a harmonious and synergistic balance between the four broad pillars of socio-economic progress, environmental preservation, cultural and spiritual values and good governance. More recently, within the parameters of these guiding pillars, a set of nine domains have been identified that include a host of GNH relevant indices and indicators contributing to a composite index to provide a quantitative measure of GNH. This GNH index in combination with the GNH screening tools will help appraise the potential impact and effects of proposed policies and development projects on GNH outcomes and promote those activities that enhance the latter. Additionally, over a period of time this is expected to provide a useful perspective and measure of progress being made towards achieving GNH.

In the pursuit of maximizing GNH, the Bhutan Vision 2020 paints a compelling picture of what Bhutan could be in the year 2020. As the country stands today at the midpoint of this milestone date, it is highly opportune to recollect this special vision and desired outcomes. Politically, the Vision 2020 document envisions Bhutan to stand out as a respected and active member of the international community recognized for its role in promoting peace, harmony and stability within the global community. The vision further anticipates that Bhutan will have demonstrated effectively to the world at large that it is entirely possible to embrace the benefits of modernization without being overwhelmed by its harmful effects while proudly maintaining a distinct national identity and rich and diverse cultural heritage.

Bhutan's economic landscape is foreseen to be transformed by continued investments in fully harnessing the country's comparative advantage in hydropower production. However, the vision also foresees a deepening and broadening of the economy supported by a thriving horticulture and organic oriented high value agriculture sector, clean manufacturing and industrial base and a burgeoning hospitality industry. These non-hydro power sectors are

expected to contribute to generating productive employment for the growing numbers of youth entering the labor market.

Socially, it is envisioned that there would be equitable access to and high quality social services across the country. The health care system is envisaged to be effectively decentralized and technologically well equipped, and equal to those existing in developed countries with highly developed and much sought after indigenous medicine expertise. Life expectancy and infant/under-five/maternal mortality rates are expected to approach levels comparable to the current average for all developing countries in 2000. On the long term sustainability of providing free health care to a highly dispersed and scattered population, the vision anticipates that this could become prohibitively expensive and suggests the need to look at innovative methods of financing health care; introducing user fees for medical services to those who can afford them; and developing private health insurance.²

The vision further projects Bhutan to possess the full range of educational institutions required for the formation of all relevant knowledge and skills and that education system will have evolved to effectively develop the innate potential of children and instill in them an awareness of the country's rich cultural values and heritage and appreciation of ethical and moral choices. The vision is also about a transformed learning environment wherein education will have prepared youth for employment and inculcated in them a natural curiosity and aptitude to continually learn and acquire new knowledge and skills

On environmental sustainability, the Vision 2020 is optimistic that the natural environment and natural resource endowments will still be richly intact, with 60% of the country forested and sizeable tracts of protected national parks and reserves harboring an incredibly rich biodiversity. The vision argues for the need that the environmental conservation approach will be dynamic rather than static and will not merely treat natural resources as something only to be conserved but as an immense asset that can be sustainably utilized for socio-economic development.

Bhutan in 2020 is expected to not only have its rich culture still vibrant, alive and clearly visible in Bhutanese lives, but that it will be richly infused with contemporary relevance and meaning. In terms of activities, the vision places a high priority for the promotion of traditional arts and crafts, architectural styles and national language and the conservation and protection of the historical monuments, sites and artifacts while improving accessibility to this rich legacy.

In terms of good governance outcomes, the vision anticipates the full development of the country's governance and legal institutions and the emergence of a respected system

² *Within the context of the inalienable right of all Bhutanese to free basic health care guaranteed under the Constitution.*

of jurisprudence. There is also the expectation that political changes would give rise to new dimensions of the existing traditional concepts of representation and democracy in Bhutan. The vision further envisaged that the ongoing decentralization processes would be completed by 2020 with local governments fully and effectively empowered and responsible for many of the development planning and management functions. The vision expects that through the latter, the Bhutanese people would genuinely “own” the development process thereby fulfilling both long term national goals and meeting local needs and aspirations.

1.2 MACRO-ECONOMIC CONTEXT

1.2.1 Growth and Structural Changes in the Economy

Real GDP in Bhutan grew at about 8.9% since 2005 and Bhutan’s GDP in 2009 was estimated at US \$ 1.265 billion³ with GDP per capita assessed at US \$ 1,852. As reflected in Table 1.1, GDP per capita has virtually doubled from US\$ 1,290 in 2005.

This robust growth pattern has been sustained by the rapid expansion and growth of the hydropower and construction sectors that together comprise about one third of the economy. Growth patterns due to the cyclical nature of Bhutan’s hydropower driven economy is marked by considerable fluctuations that coincide with the startup and commissioning of hydropower projects. In 2007, the spike in growth is explained by the commissioning of all the six turbines of the Tala Hydropower Project. The electricity sector’s share of the economy exceeded that of the agriculture sector in 2007 and in 2010 constituted more than a fifth of the economy. Reflective of this transformation from a traditional and agrarian economy into a more modern economy, the service sector accounts for more than a third of GDP.

Table 1.1 Economic Growth and GDP Aggregates

	2005	2006	2007	2008	2009	2010
Real GDP Growth	8.8%	6.9%	17.9%	4.7%	6.7%	8.1%*
GDP per capita (US\$)	1,290	1,388	1,815	1,874	1,851	-
Electricity (% of GDP)	10.1%	13.1%	20.4%	21.1%	19.3%	21.8%*
Construction(% of GDP)	17.2%	14.8%	13.7%	11.4%	12.2%	15.1%*
Agriculture (% of GDP)	22.3%	21.4%	18.7%	18.4%	18.2%	14.5%*
Manufacture (%of GDP)	7.1%	7.6%	8.2%	8.4%	8.2%	8.7%*
Services (% of GDP)	41.7%	40.9%	37.3%	38.4%	39.8%	35.4%*
GDCF(% of GDP)	56.4%	45.6%	40%	30.6%*	35.4%*	39.6%*
GDS (% of GDP)	31.7%	33%	37.3%	40.2%*	40.5%*	40.4%*

Source: NSB, National Account Statistics 2009, *BPFFS Revised Budget

³ NSB, National Account Statistics, 2009, October 2010

In terms of employment though, the agriculture sector remains by far the most important area of economic activity with 59.4% of the total employed working in this sector in 2010. In comparison, the National Labor Force Survey 2010 (NLFS 2010) reflects that of the total employed workers in Bhutan, only 2.4% work in the hydropower and construction industry and 3.9% were employed in the manufacturing sector. 33.6% of those employed were engaged in the services sector including general public services. As such, while there has been a shift in labor force away from agriculture, the latter nevertheless remains a critical and key sector with farming as the primary occupation and principal source of livelihood for most Bhutanese.

1.2.1.1 Investment and Savings

Gross Domestic Capital Formation (GDCF) has averaged 45.6% of GDP over the last decade and was estimated at 40% of GDP in 2010. This high rate of capital formation has occurred largely on account of the construction of numerous infrastructure and hydropower projects, a trend that is likely to continue with Bhutan's implementation of a targeted 10,000 MW hydropower capacity by 2020. These enormous infrastructure investments have been sustained largely due to growing private domestic savings and sizeable external inflows in the form of grants and loans. There has also been a positive trend in the increase in national savings. Gross Domestic Savings (GDS) has grown from a deficit situation in the mid-eighties to around a quarter of GDP in the nineties and has averaged at about 37% of GDP over the last five years. Private savings has been growing rapidly over the last decade and now eclipses foreign inflows as a major source of investment finance.

1.2.1.2 Inflation

The rate of inflation in Bhutan as measured by the change in consumer prices has fluctuated but has shown a slight increase over the last two years which has largely been on account of the significant rise in food prices. Inflation over the four quarters in 2010 averaged 7% but in the first quarter of 2011 rose to 9.6% marking a period high over the last few years.

Inflation, however, has remained under control and is relatively low as compared to levels over past decades. Inflation in the country has traditionally run in parallel with inflationary trends in India as Bhutan imports over 80% of its consumer goods from India. As such, to a large extent inflation in Bhutan is a spillover effect from its neighbor though there are domestic reasons as well which include the rapid increase in public expenditures and credit growth. The frequent price hikes of fuel in India have also directly impacted Bhutan. With oil imports alone comprising around 15% of the total value of imports in 2009, these increases and any future price hikes will further exacerbate the current account deficit and affect the

overall balance of payments situation. Moreover, the steep rises in fuel price will increase transportation costs and further drive up the cost of consumer goods and food grains which is likely to aggravate poverty and inequality of income distribution.

The Ngultrum's peg to the Indian Rupee has provided a degree of stability to the national currency and also helped maintain price stability. This peg is being maintained. Additionally, to minimize inflationary impact in Bhutan, monetary policy has been tightened through measures such as raising the cash reserve ratio for banks from 13% to 17% and increasing reserve requirements and provisioning for the most exposed sectors. The volume of RMA discount bills has been increased from Nu.100 million to Nu.2,000 million and the Royal Government has also introduced T-bills, that in addition to raising finances for short term government borrowings has helped reduce money supply and contain inflation.

1.2.1.3 Domestic Revenues

Bhutan's prudent fiscal policy to enhance economic self-reliance through meeting rising recurrent expenditures from domestic revenues has been notably successful. Domestic revenues have increasingly financed a larger share of total development expenditures reflecting increased self-reliance. This is even more impressive given the remarkable expansion in the scale of budgetary operations in absolute terms.

Revenue buoyancy in Bhutan has been assessed at 1.15, indicating that revenue has been buoyant for the last ten years and responsive to economic growth. It comprised 24% of GDP on average between 2005-2010 more than doubling from Nu.6.9 billion to Nu.16.96 billion. Comparatively, Bhutan's revenue to GDP ratio is above that of low-income countries and the South Asian region⁴ but considerably much lower than in developed countries that typically are at around 45-55% of GDP.

A noticeable and consistent trend over the last two decades has been the growth of tax revenues. Prior to the 1990s, tax revenues comprised around a quarter of the total revenues due to low tax rates and the small tax base. Over the 1990s, tax income increased to over a third (36%) of all government revenues. Tax revenues have continued to increase steadily and over the last five years accounted for slightly more than half of the total revenue. The major source of tax revenue is derived from Corporate Income Tax which comprises about 30% of total revenues today. To prevent growing income disparities and broaden the tax base, personal income tax (PIT) was introduced in 2002. From 2% of total revenues or Nu.100 million in the first year of collection, PIT contributed to 4.4% of the total revenues or Nu.741 million. The scaling up in the PIT collection was principally on account of the growth in number of taxpayers and the salary revision of civil servants.

⁴ RMA, RMA Annual Report 2009/2010, January 2011

The electricity sector remains by far the largest contributor to the national exchequer. Taking into account both corporate income from hydropower corporations and the transfer of dividends, electricity contributed to more than a third of national income over the last two decades. The strong growth in the Trade, Services and Finance sectors respectively has also enhanced revenue collection and are important revenue generating sectors.

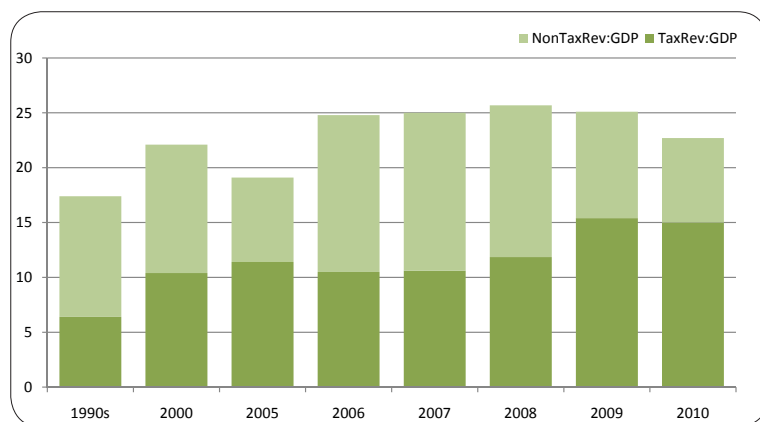
1.2.1.4 Public Expenditures

The size of fiscal operations is relatively large in comparison to regional standards. Public expenditures have grown rapidly between 2005 and 2010 and have consistently manifested a pro-poor orientation. Social sector expenditures accounted for 21% of the total budget allocation between 2005-2010, with the health sector receiving 7% and the education sector allocated 14%. Additionally, within the allocation for the economic sector, the major budget items pertain to the provisioning of infrastructure like roads and electricity that are known to be vital drivers of poverty alleviation.

Table 1.3 Highlights of Budgetary Operations 2005-2010

Fiscal Indicators	2005	2006	2007	2008	2009	2010*
Total Resources (million Nu)	13,452	17,483	18,317	23,443	30,991	30,550
Domestic revenues (million Nu)	6,903	10,082	12,346	14,049	15,638	16,962
Grants (in million Nu)	6,425	6,001	5,935	6,575	11,119	13,314
Total expenditures(million Nu)	13,357	15,166	19,693	20,891	25,832	35,073
Fiscal balance (million Nu)	-319	288	-404	1,093	1,102	-3,647
<i>as % of GDP</i>	-0.9%	0.7%	-0.8%	2%	1.7%	-4.8%
Current expenditures (million Nu)	6,627	7,636	9,726	11,061	12,903	15,772
Capital expenditures (million Nu)	6,684	7,530	9,967	9,829	12,929	19,301

Chart 1.2 Revenue (Tax and Non Tax) to GDP



Source: DRC, RMA

Current expenditures have grown on average at 17% between 2005 and 2010 percent a year and in 2010 comprised about 21% of GDP, up from around 18% of GDP on average in preceding years. Salaries and wages alone count for 41% of the total current expenditures.

Bhutan's fiscal stance has generally been prudent with the budget deficit kept under control. This has been achieved by meeting current expenditures almost entirely from domestic revenues and adjusting capital expenditures based on the availability of development assistance resources from donors. In order to curb the possible rise in fiscal deficits, the Royal Government has started cutting down on unproductive expenditures.

1.2.1.5 Overall Balance of Payments and Reserves

Bhutan's overall balance of payments (BoP) in 2009 was Nu.4,401.4 million. On average between 2005 and 2009, it enjoyed a positive BoP of Nu.4,537 million a year. Significant external inflows on account of grants and loans from India and other development partners have helped compensate for the trade deficits.

On the trade account side, Bhutan's imports have grown rapidly. Between 2005-2009, imports averaged about 57% of GDP with provisional estimates that this could potentially reach 80% of GDP in 2010. In terms of value, imports doubled from Nu. 19.5 billion in 2005 to Nu.39.3 billion in 2009. Imports by value are largely on account of capital machinery and equipment, fuel, vehicles, food and a wide range of consumer products. Exports also grew rapidly between 2005 to 2009 and in terms of their value, grew from Nu. 13.96 billion to Nu. 25.4 billion. Bhutan's major exports have been electricity, base metals and mineral products that together make up for more than two thirds of the total export value over the last five years.

As reflected earlier, Bhutan has an extremely large trade deficit but these large trade imbalances have not negatively impacted the overall balance of payments account which has been positive due to the external capital inflows, most of which are directed towards infrastructure development in the hydropower, health and education, agriculture and communications sector. This has contributed to the steady growth of the country's gross international reserves which stood at US\$ 988.6 million as of November 2010, adequate to provide import cover for over 13.4 months.

1.2.1.6 Debt

Bhutan's total outstanding external debt as of March 2011 stood at US \$ 851.4 million or 50% of GDP. Of this US \$ 478.9 million is outstanding convertible currency debt and an equivalent of US \$ 372.5 million is Rupee debt. India remains Bhutan's largest lender followed by the ADB

and the World Bank. The debt servicing ratio, excluding the State Bank of India's overdraft facility, has been at around 13% and in 2010, the total external debt service was estimated at US\$ 80 million.

1.2.1.7 A Macroeconomic Perspective to 2020

On the basis of the National Statistics Bureau (NSB) population projection, with the population growth rate stabilizing at 1.3% Bhutan's population is expected to grow from 695,822 in 2010 to 757,042 in 2015 and 809,397 in 2020. Additionally, the percentage of those below the age of 24 is projected to comprise about 46% of the population with those below fifteen comprising 30% in 2020. Clearly with such a youthful demographic profile, this is likely to induce a correspondingly higher demand for health and education services and increased social expenditures. The number of educated youth entering the labor market over the years is also likely to place a growing demand for decent employment, especially in the context of the continued highly capital intensive growth that is unlikely to generate adequate employment opportunities.

The preparation of detailed forecasts beyond the Tenth Plan period is difficult because of the unpredictable behavior of financial variables over a longer period. Nevertheless rough estimates for GDP and revenue growth, debt and debt servicing and revenues have been estimated based on preliminary projections made under the Budget Policy and Fiscal Framework Statement (BPFSS) as of May 2011. Real GDP is anticipated to pick up momentum with a projected average annual real growth rate of 9% from 2011 to 2019. This takes into consideration the implementation of several of the various hydropower projects planned under the accelerated hydropower development to secure 10,000 MW by 2020. Growth projected over the medium term i.e. the next five years is estimated to grow at 9.5% with spikes for the years in 2015 and 2016.

Domestic revenues are projected to grow at 16.6% from 2011 to 2019 with peaks in 2015 and 2016. In 2019, revenues are expected to touch Nu.60 billion while total expenditures are projected to increase to Nu.77 billion. Current expenditure is projected to grow much more rapidly than capital expenditure, with current expenditure virtually tripling from Nu. 15.8 billion to Nu. 44 billion while capital expenditure grows from Nu.19 billion to Nu.33 billion. Total external debt is projected to grow in absolute terms from Nu.55.7 billion or 66% of GDP in 2010 to Nu.82 billion or 36.5% of GDP. However, debt servicing ratios are likely to average around 13%.

⁵ RMA, RMA Annual Report 2009/2010, January 2011

⁶ MoF, BPFSS Revised Budget 2011

Sustaining such high levels of growth with a stabilized population growth rate would result in tremendous growth in per capita income even though national income is likely to be skewed towards corporate incomes rather than accruing at the household. Such a scenario in conjunction with strong redistributive policies would help eradicate poverty in Bhutan and substantially improve the living conditions of the people. However, it must be remembered that the hydropower and construction sectors as reflected earlier are not so labor intensive and have limited prospects to generate significant employment opportunities, particularly for the youth.

1.3 CHALLENGES OF ECONOMIC VULNERABILITY

Economic vulnerability, needless to say, is highly detrimental to development, particularly for small and landlocked countries like Bhutan. Viewing economic vulnerability from the context of structural handicaps that inhibit and impair growth and development, Bhutan can be said to suffer from enormous disadvantages that innately arise from its small size, remoteness and distance from global and regional markets, landlocked situation, weak economies of scales compounded by a small domestic market and nascent private sector, narrow economic base and vulnerability to natural disasters and climate induced hazards. As such, even as GDP per capita has grown rapidly, Bhutan still manifests a high degree of economic vulnerability most of which arises from inherent factors over which the country has either limited or no control. Moreover, the single market and single commodity feature of Bhutan's economy and dependence on hydropower revenues and external assistance also makes the country vulnerable to economic volatility.

1.3.1 Geographical Constraints

With 695,822 people in 2010⁷, Bhutan has an extremely small population base. Geographically too and in terms of economic size, it is small, being locked and among the least developed countries in the world. The diseconomies of scale associated with smallness and a highly limited domestic market are only too well known and pose significant challenges in terms of the costs and difficulties in trying to diversify its narrow economic base.

Bhutan's smallness is compounded by its remoteness and distance from major regional and global markets. That it is landlocked adds to the litany of structural handicaps that Bhutan faces as it seeks to access and integrate with the global economy. Numerous studies have quantified the high costs for landlocked and least developed countries in conducting trade and it is estimated that transportation costs have become a far-more restrictive barrier to trade than tariffs. Estimates are that on average, landlocked developing countries spend almost twice as much for transport and insurance costs than what developing countries pay and three times more than what developed economies pay.

⁷ NSB, *Statistical Yearbook of Bhutan 2010, November 2010*

In Bhutan's case, while exports are dominated by energy exports that are delivered through high-power transmission lines, economic remoteness and insularity nevertheless adds considerably to trading costs as they raise import bills and lowers competitiveness for manufactured exports. Additionally, in the Doing Business 2011 Report, Bhutan's trading across borders indicator reflects a very low ranking (161) largely due to the high costs to export and import which are considerably much higher in Bhutan than for other countries in the region and those at the same income levels. The small size of Bhutan's economy and its domestic market also makes it extremely challenging to attract FDI and expand its domestic industries and service sectors.

Geographically, the rugged and harsh mountain terrain and the scattered nature of settlements add hugely to the development costs of providing social services and basic infrastructure due to increased transport costs. For instance, the Bhutan MDG Needs Assessment and Costing Report (2006-2015) discloses a much higher unit and per capita cost for most MDG interventions as compared to many other countries. Transportation constraints further exact a cost on rural communities as the resulting increased price of goods diminish the spending power and consumption levels of many distant communities. At the national level, this also tends to decrease the rate of return on capital on investments made.

Furthermore, the tyranny of distance adds immensely to the challenge of providing last mile development coverage as the Royal Government seeks to reach all of the hard-to-reach communities across the country. Moreover, bringing last mile communities into the mainstream of development is often the most difficult task requiring sustained and scaled up investment of resources over a prolonged period of time.

1.3.2 Weak Growth in the Primary Sector

The primary sector in Bhutan over the last decade has steadily declined even as it remains critically important for livelihoods. Real growth rate for the primary sector has been slowing down and is in gradual decline. From a growth rate of 3.7% in 2006 this has come down to 2.5 and 1.6% respectively in 2008 and 2009. On average over the last decade the primary sector has only grown by 0.5% annually in stark contrast to rapid growth in other sectors. In terms of its share to GDP, the primary sector contributes to 20.5% of the national economy, down from 37.5% in 2000.

The primary sector is comprised of agriculture, livestock, forestry and mining sectors. Agriculture and livestock in Bhutan remains essentially at a subsistence production level. There are no agricultural trade surpluses and it would appear that Bhutan will remain a net importer of agricultural commodities for the near foreseeable future. Agriculture production has been constrained by limited arable land (7.8%) with a difficult mountain-slope

cultivation environment that limits farm mechanization. Additionally, integrated farming systems in the uplands are often characterized by marginality, inaccessibility and fragility. Fragmented land holdings and landlessness among small holder tenant farmers, the high cost of agricultural inputs, and distance from markets additionally hamper efforts to expand agricultural production. The Tenth Plan MTR review highlighted that crop productivity in Bhutan in terms of yield per hectare was among the lowest in the South Asian region. These are further compounded by farm labor shortages and chronic loss of grain and livestock to pest and wildlife are other problems that deeply affect and limit agricultural production. Nevertheless, the sector does have potential for enhancing income generation and poverty alleviation in rural areas, particularly in horticulture and cash crops and its valuable non timber forest products.

Even as forest resources are abundant, its contribution to GDP has declined over the years due to a strong intentional policy focus that favors conservation over commercial exploitation. With a Constitutional mandate to maintain 60% forest cover for all time to come and the national pledge to always maintain carbon neutrality, strict control on logging is maintained in addition to the complete ban on the export of raw timber and logs. Forestry and logging once comprised about 10.5% of GDP in 2000 but now stands at 4.2%.

1.3.3 Low levels of Value Addition in the Manufacturing Sector

Bhutan's manufacturing sector comprises forest-based, agro-based and mineral-based industries that produce cement, chemicals, wood products, processed food and basic iron and steel. Some new industries that have emerged recently include polymer yarn texturizing, palm oil refinery, copper drawing and iron ingot processing. The number of licensed manufacturing industries has risen from 299 in 2000 to 1,565 today with more than 90% of these enterprises privately owned and categorized as small-scale or cottage industry. The numerous small scale and cottage industry enterprises do not contribute much by way of gross output value but are critical in terms of employment and livelihoods, particularly in Bhutan's underdeveloped rural economies. The manufacturing sector, however, is dominated by power intensive industries that engage in processing raw minerals with the competitive advantage of cheap and reliable energy. These mineral based industries mainly produce cement, ferro-alloys and calcium carbide for exports. Other manufactures comprise agro-based edible food commodities, liquor, particle board products and polythene pipes.

The share of manufacture in the economy has been estimated at 8.2% of GDP in 2009 with a 6.9% growth in that year⁸. The sector accounted for 8% of GDP in 2000 and 7% in 2005 and over the last decade has maintained pace with the overall growth in the economy. While

⁸ NSB, *National Accounts Statistics 2009, October 2010*.

gross value addition in the manufacturing sector has grown in absolute terms over the last five years, its share to GDP is still very low at 6.4% in 2009. Bhutan's level of manufacture value addition is comparatively much lower than in the South Asian region (15.3%) and weak even by low income (12.4%) and LDC (11%) standards. This reflects a greater need to expand investment, develop productive capacities and innovate to produce an increasing range of higher value added goods and services if Bhutan is to end its chronic vulnerabilities and eliminate poverty.

The up scaling of value added manufacturing faces numerous constraints including weak productive capacity and the lack of technical and management skills, shortage of technology and capital and other challenges mentioned earlier pertaining to a small economy, landlockedness and distance from markets. There is also the risk of price volatility in global and regional markets that affect the sustainability of domestic manufacturing industries. Over the last two years, the manufacturing sector in Bhutan has been exposed to sharp fluctuations in market prices both for raw materials and end products that severely threatened the viability of several iron and steel companies and of the new ferro-alloy businesses. While the situation has normalized to a certain extent, this effectively displayed the high degree of vulnerability and exposure to exogenous shocks that manufacturing enterprises are confronted with.

The shortage of convertible currency that limits the inflow of necessary capital goods and technology is another severe constraint. Some of these constraints could be eased through FDI but investment flows from abroad have so far been limited and largely channeled into the hospitality sector. The introduction of the revised FDI 2010 policy and the Economic Development Policy (EDP) 2010 hopefully will boost much needed investments to enhance value addition in industries and further expand the manufacturing sector.

1.3.4 Economic Openness and High Export Concentration

Most small and open economies like Bhutan are often highly susceptible to external economic conditions. Additionally, high dependence on a narrow range of exports and markets give rise to risks associated with the lack of diversification thereby exacerbating economic vulnerability. Indeed, economic vulnerability is often understood or defined within the context of exposure of an economy to exogenous shocks arising out of economic openness.

Bhutan is a highly open economy with trade to GDP ratios over the last few years at 107% of GDP. Over the last two decades, exports have been highly concentrated in a few areas, notably hydropower exports and mineral and mineral-based commodities. Additionally, about 92% of the exports are destined for India. On this basis, Bhutan can be said to have very high levels of both export product concentration and export market concentration

indices. UNCTAD's export concentration index (for the year 2008) for Bhutan was assessed at 0.65 with a global ranking of 21st which placed it among the top twenty five highest export concentration states from among 175 countries. With a more rapid growth in the hydropower sector for the next decade, the prospects that the high levels of export concentration will diminish are extremely slim.

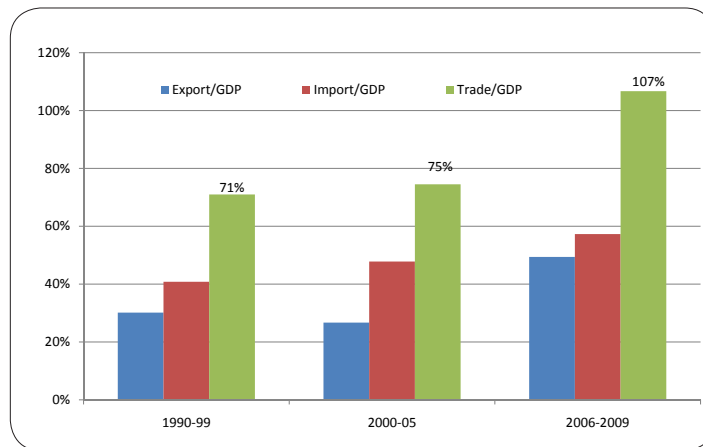
Bhutan's exports are thus less diversified both in product and destination markets, and thereby quite exposed and vulnerable to external shocks. Fortunately in Bhutan's case where the primary export is hydropower energy, export earnings have so far been relatively stable and shielded from the volatility of commodity prices. However, its non-hydro mineral based industries are exposed and vulnerable to market volatility.

1.3.5 Natural Hazards and the Impact of Climate Change

Bhutan lies in one of the most active seismic zones in the world and has suffered numerous major earthquakes. In September 2009, Bhutan experienced a 6.1 magnitude earthquake with its epicenter in Mongar that took twelve lives and affected 7,290 people. The earthquake damaged 4,614 homes, 90 schools, 60 government offices, 25 hospitals and health centres and 281 monasteries in with the damage cost estimated at around US\$ 52 million. Earlier the same year, Aila, a strong tropical cyclone caused widespread damage to socio-economic infrastructure including roads, bridges, irrigation channels and homes as torrential rains led to severe and widespread flooding. Hydropower projects in the country were also affected due to the influx of heavy debris and silt causing massive clogging and silting. Moreover, forest fires are rampant, monsoon flash floods and landslides ever prevalent, crop depredation by wildlife, droughts and windstorms are all frequent natural occurrences. Bhutan is also located in a geographical zone most prone to fatality inducing landslides. Recently in April 2011, windstorms damaged about 1,833 structures which included many rural homes and farms, monasteries schools, health clinics, *Geog* offices and Non Formal Education (NFE) centers across twelve districts.

There is also the looming threat from the possible outburst of twenty five glacial lakes situated on the high mountain catchment areas of the five major river basins where 70% of all human settlements in the country are located in low lying downstream valleys. Bhutan's entire northern areas abound with some 677 glaciers and 2,674 glacial lakes. With global warming and the melting of glaciers, there is an increased risk of flooding from glacial lake outbursts that could devastate downstream human settlements and socio-economic infrastructure and agricultural resources that constitute the economic lifeline of Bhutan. The Thorthomi lake is an immediate concern and disaster mitigation work is already underway to artificially lower the water levels in the lake.

Changes in the hydromet systems due to climate change resulting in potentially dramatic

Chart 1.4 Bhutan Trade to GDP Ratios

Source: RMA Annual Reports

alternations in seasonal weather patterns and extreme drought and flood occurrences, could severely impact Bhutanese livelihoods and affect the long term sustainability of Bhutan's hydropower and agricultural based economy. Both the hydropower and agriculture sectors are highly sensitive to climate change and in both cases the major driving factor will be the availability of water resources. While the impact of climate on livelihoods and food security are discussed in Chapter Four, the following section focuses on the vulnerability of Bhutan's hydropower sector to climate change and the imperative of "climate-proofing" hydropower projects as a mitigation and adaptive strategy.

Despite the lack of very definite data on climate change in the region, there is nevertheless broad agreement among climatology experts that glaciers in the Himalayas are receding rapidly and that Asia's water towers are threatened. It is also expected that the most significant changes are likely to occur in glacier fed river systems and that hydropower will be among the most critical sectors to be impacted by changes in global and regional climate, particularly as all of the hydropower plants in Bhutan are the run-of-the-river type. Moreover, hydrological flows in Bhutan are highly dependent on rainfall, snowmelt and glacial melt runoff, and as such are particularly susceptible to changes in climatic conditions. Given that hydropower plants have a long life span of over fifty years climate change impacts are almost inevitable even if a significant part of the changes takes place much later in the future.

Increased volatility in precipitation patterns and hydrology flows will most certainly affect hydropower generation which would potentially impact revenues. Such impacts on revenue flows would be acute and particularly challenging in the light of significant debt servicing on account of hydropower investments. The seasonal variability of hydropower generation in winter and summer months are already indicative of what a marked fluctuation in generation capacity can do. In Bhutan, surplus power is generated in summer but the

country experiences an energy deficit situation in winter months when hydrology flows are at their lowest. In a typical year, production is near or at capacity in only about five months. Without a reservoir to store water during winter for the production of electricity, hydropower generation is severely seasonal. A scenario of significantly reduced hydrology flows would therefore prove devastating for not only the hydropower economy but numerous other sectors that depend on reliable and cheap electricity. Another scenario is that in times of major flashfloods or excessive discharges, there could be higher generation of power but this could be offset by massive siltation and sedimentation problems that could diminish the life span of power projects not to mention exact enormous costs for desiltation. Even the temporary shutdown of turbines or the hydropower plant itself could have adverse effects on electricity production that would directly impact revenue flows.

As such, as a first step towards mitigation, there is an urgent need to collect reliable data and conduct technical studies to assess the impact and fallout of such climate changes on hydrological flows. Such studies could also look into whether having larger installed capacity with some storage facility might be useful to address increased seasonality in hydrological series. There is also a need to look at proactive steps taken towards adopting technical solutions in designing and constructing future hydropower plants that could be “climate proofed” to the extent possible to better weather climate change impacts. There is at present an immense lacuna in assessing these issues which necessarily limits the ability to devise appropriate mitigation efforts and adaptive strategies. Enhancing capacity development for meteorological and hydrological services and climate modeling is also important. What is very clear though is the imperative for Bhutan to protect and effectively manage its natural watersheds.

1.3.6 Assessing Economic Vulnerability

The UN’s Committee for Development Policy (CDP) in its review of Least Developed Countries (LDCs) in 2009, rated Bhutan’s economic vulnerability at 52.9% or halfway of the LDC graduating threshold, taking all of the above factors including exposure to natural shocks/ disasters and its inherent structural constraints. The Economic Vulnerability Index (EVI) rating for Bhutan places it roughly in the mid-range of all LDCs which would suggest a high degree of economic vulnerability as most LDCs are collectively the most economically vulnerable group within the global community.

Additionally, the *Climate Vulnerability Monitor (CVM) 2010: The State of the Climate Crisis* published by Dara and the Climate Vulnerable Forum categorizes Bhutan as among those states where the overall vulnerability to climate change is high and would exacerbate to become acute by 2030 on a descending scale of acute, severe, high, moderate and low levels of impact. The projected climate change vulnerability scenario by 2030 in the CVM 2010 Report is that health impact, weather disasters, and habitat loss in Bhutan would deteriorate and become acute in addition to generating high levels of economic stress.

1.4 STATUS OF PROGRESS TOWARDS THE MDGs

Bhutan's latest MDG Report "*Bhutan's Progress: Midway to the Millennium Development Goals*" published in November 2008 indicates that Bhutan is making sustained progress in achieving the MDGs and is well on track to achieve most targets by 2015, many possibly coinciding with the end of the Tenth Plan by 2013. A summary review of progress towards the goals and targets with a current assessment of the situation with updated data is provided below and a summary chart of Bhutan's progress is provided in Annex 1. Sustained progress at the national level towards the MDGs however tends to mask significant disparities and achieving the MDGs with equity such that the poorest and the most marginalized and vulnerable groups are not left behind remains a core issue and challenge for Bhutan.

Goal 1: Eradicate Extreme Poverty and Hunger

Since 2000, income poverty has been scaled back by five percentage points a year and reduced to 23.2% in 2007. No poverty surveys have been conducted since then. On the basis of sustained growth and substantial investments poured into improving the quality of people's lives on all development fronts, the assessment is that income poverty will decline to less than 15% by 2013, thus achieving the first MDG target ahead of time. This reduction in income poverty has also been matched by declines in multi-dimensional poverty as measured by the human poverty index (HPI-1). Progress on the second target namely to reduce hunger is also adjudged to be satisfactory in view of improvements in child malnutrition and the low levels of the proportion of people subsisting on a minimum level of calorie intake (5.9%), even while there are apprehensions that food poverty has increased from 3.8% in 2003. Notwithstanding this sustained progress, concerns remain over the considerable spatial disparities in income and human poverty⁹ levels across and within regions. Given the critical importance of poverty alleviation, a more detailed treatment of poverty alleviation and its challenges, including an analysis of multidimensional poverty in Bhutan is provided in Chapter Two.

Goal 2: Achieve Universal Primary Education

Given the strong state support and policies to enhance access to basic education, Bhutan has rapidly scaled up its gross and net enrollment for primary education and improved its primary school completion rates that will see it comfortably achieve the goal. In 2010, gross enrollment stood at 118% and net enrollment rates at 94%. The proportion of pupils

⁹ The Food Poverty Line in Bhutan, according to the Bhutan PAR 2007 was set at Nu.688.96 which is sufficient to buy a basket of food providing 2,124 Kilo Calories a day

completing five years of primary schooling was assessed at 93.6% at present as compared to just 43% in 1991. Additionally, there is now gender equality in access to basic education. In furthering the gains made in achieving universal primary education, future challenges pertain to enhancing equitable access while improving the quality of education. The quality of education in rural areas in particular has been a concern and is known to be affected by the shortage of teachers, large class sizes and high teacher student ratio, poor basic infrastructure and inadequate learning resources and facilities.

As the high unemployment rates among educated youth in Bhutan will continue to pose serious social problems, basic education needs to be made more relevant to cater better to market needs. There is also a deep apprehension that many children of school going age in several rural communities are not attending schools. In 2009, the number of school age children not enrolled was estimated at 11,565 of which 5,099 were girls and 6,466 were boys¹⁰. An associated concern is that many of the children out of school could be working¹¹. Another issue raised in the Mid Term Review (MTR) of the Tenth Plan was the potential impact that the withdrawal of the school feeding programme would have on the enrollment of school children.

Goal 3: Promote Gender Equality and Empower Women

Gender parity in basic education has been achieved with 102 girls for every 100 boys in primary schools and 103.5 girls for every 100 boys at the secondary level. Gender parity at the tertiary institutes though remains a concern as there are only 60.8 female students for every 100 boys though the girl to boy ratios have vastly and consistently improved since 1991 when the ratio was 12:100. The transition of girls to technical and tertiary education however is low and greater policy attention and resources need to be directed to improve gender equity in tertiary education.

With regard to the target indicator of women's empowerment in terms of the share of women in wage employment non agriculture sector and representation in national parliament, there is mixed evidence. There is a small labor market gender imbalance with the labor force participation rate for females at 63.9% as compared to 73.6% for men in 2010¹². However, women do have a higher unemployment rate (5.3%) as compared to men (2.6%), which is particularly accentuated among female youths. Women in Bhutan presently comprise around 31.1% of the civil service which has steadily improved from 12% in 1990. However, women are still under-represented in the National Parliament comprising 13.8% of the total representation though here too there is a trend of increased participation over the years which is likely to expand with females catching up in literacy and educational attainment.

¹⁰ MoE, Annual Education Statistics 2010

¹¹ NLFS 2009 reveals that 3,414 children between the ages of 13-17 worked for more than a week.

¹² MoLHR, Labour Force Survey Report 2010

At the local government level too, only 4% of the leadership roles are occupied by women.

Goal 4: Reduce Child Mortality

Bhutan has made significant progress in reducing infant mortality rate (IMR) and under-five mortality (U5MR). By 2010, the national IMR had decreased to 47 per 1,000 live births and U5MR rate¹³ to 69 per 1,000 live births from the 1990 baseline of 91 IMR and 148 U5MR. This to a large extent has been attributed to the successful expanded programme of immunization (EPI) with its high coverage, improvement of access and services for children with major childhood illnesses and referral system.

In order further to reduce U5MR and IMR in Bhutan, greater attention needs to be paid to the care of newborns and infants. Also, 49% of all U5 deaths are associated with under-nutrition and a high number of children under three years of age suffer from anaemia of varying degrees. Children start becoming malnourished already in the womb especially among teen-age pregnancies with 9.9% of newborn babies having low birth weight (BMIS 2010). Most children born with normal weight also tend to become malnourished during their first and second years due to poor and irrational feeding practices. As such, while Bhutan is potentially on track to meeting the MDG targets pertaining to child mortality on the basis of sustained interventions; it would be extremely challenging and difficult to meet the Tenth Plan target of reducing IMR to 25 per 1,000 live birth and U5MR to 30 per 1,000 live births.

Goal 5: Improve Maternal Health

Maternal mortality ratios (MMR) have been reduced by about half between 1990 and 2000 from 560 per 100,000 live birth in 1990 to 255 per 100,000 live births in 2000. A recent study¹⁴ has estimated the MMR for Bhutan in 2008 at 200 per 100,000 live births. The significant scaling down of maternal mortality has been attributed to the growing network of free maternal health care services and a trained cadre of village health volunteers. Another positive development that reflects a correct national MMR reduction strategy is that mothers are now less likely to die from heavy bleeding or post partum haemorrhage (PPH) after delivery. Available maternal death investigation reviews indicate that PPH related fatalities accounted for about one third (33%) of maternal deaths in 2009 whereas in 2005, it accounted for half (55%) of the maternal death cases.

In absolute terms though, the MMR is still regarded to be high and is linked to the low levels of skilled birth attendance, which remains a critical challenge to be addressed along with the effective promotion of institutional delivery. However, skilled birth attendance has increased

¹³ BMIS 2010 data on U5MR - reference period is 2006

¹⁴ WHO, Trends in Maternal Mortality: 1990 to 2008 Estimates, 2010

with the BMIS 2010 reporting it at 64.5%¹⁵, up from 24 percent in 2000¹⁶. The early marriage of girls, which often leads to early pregnancy, is also associated with elevated levels of maternal mortality. One in five young women age 15-19 years is currently married in Bhutan (15.2%). Of these, 6.7 percent were found to be married before 15 years of age, which increases to 10 percent in the poorest households. (BMIS, 2010),

Goal 6: Combat HIV/AIDS and other diseases

Bhutan has kept abreast of the goal to combat HIV/AIDS with the prevalence rates of the disease still very low at below 0.1 percent of the population. 217 cases have been detected as of December 2010 since the first two cases in 1993. However, WHO and UNAIDS estimate that there could be as many as 1000 people already infected with HIV/AIDS. Even as HIV/AIDS prevalence rates remain low, there are concerns about the rapid growth in infection over the recent years with a detection of 32 cases alone in 2010. Additionally, Bhutan remains at risk in view of factors pertaining to its proximity to countries with high prevalence of HIV/AIDS, ease of mobility across borders, high degree of sexually transmitted infections, rising levels of substance abuse, low levels of condom use and a youthful demographic profile. The Tenth Plan Mid Term Review (MTR) highlighted the need to closely review the HIV/AIDS related policies and the feasibility of establishing a more effective and efficient screening system.

The Royal Government has identified the need to develop strategies to ensure the protection, care and support of children affected by AIDS. Another priority and vulnerable group for HIV prevention is the youth. The National Youth Policy addresses aspects such as gender issues, HIV prevention, health education and the needs of vulnerable youth. Additionally, several social services for youth are expanding and along with six youth centres, six drop in centres and two rehabilitation centres provide preventive and responsive services in which youth volunteers play an important role. However, the most vulnerable youth continue to struggle to assess support to empower their safe development into adulthood and increased investments in such youth support systems will be important to ensure HIV and other sexually transmitted infections do not continue to rise.

There has been notable achievement in mitigating the disease burden of malaria and tuberculosis. The Bhutan MDG 2008 report indicates that there have been marked reductions in the mortality and morbidity rates due to malaria and tuberculosis over the last two decades and that the MDG target of reversing and halting the spread of these diseases is well on track. From a high level of TB incidence of 720 cases per 100,000 in 1990, this has dropped by about 80 percent to 150 cases per 100,000 in 2009 and that malaria incidence has similarly declined from extremely high levels to around 200 per 100,000.

¹⁵ Skilled Birth Attendance at 69.5% in 2010 according to MoH, Annual Health Bulletin 2011

¹⁶ RGoB and UNDP 2008, Bhutan's Progress: Midway to the MDGs, November, 2008.

However, a cause of concern is that while malaria trend is declining sharply in the five perennial transmission districts, the number of malaria cases reported from *Dzongkhags* with seasonal transmission is showing an increasing trend. Additionally, this is further compounded by high infection rates across the border with India.

Goal 7: Ensure Environmental Sustainability

Bhutan maintains a high level of forest cover at 72.5% of the total land area with about half of this area designated as protected areas. This conservation landscape of protected areas and biological corridors spanning the length and breadth of the country has been identified as the Bhutan Biological Conservation Complex (B2C2), which includes 9 percent of the total land area maintained as biological corridors to facilitate the migratory movement of animals and birds within a wide natural range and between protected areas. In addition to these high levels of forest cover and protected area, Bhutan has pledged to always remain a carbon neutral economy and minimize its carbon footprint. As such it stands out in terms of its environmental conservation commitments and efforts at securing the MDG targets of environment sustainability.

Bhutan is also an early achiever with regard to the target pertaining to water coverage with levels approaching near universal coverage. The recent BMIS 2010 survey reveals access to improved drinking water source at 96.1%. Except for Gasa which had only a 70% access level to improved drinking water sources, all

Box 1.5

A Millennium Declaration Commitment: Promotion of Child Protection in Bhutan

In keeping with the shared vision of the Millennium Declaration of equal rights for adults and children alike, the Royal Government has steadfastly worked towards securing the safety and well-being of all Bhutanese children and to this end is implementing appropriate laws, policies and action plans and allocating required resources.

The landmark Child Care and Protection Act (2011) represents a milestone event for child protection and strengthens the legal framework for the care and protection of children in observance of Bhutan's commitment under the Convention on the Rights of the Child. This provides the basis for a national child protection system that will significantly enhance the Royal Government's capacity to prevent and respond to violence, abuse and exploitation against children. The challenge now is to ensure that the act effectively translates into a positive change for children. While the Royal Government stands committed to this process, child protection nevertheless remains a new focus area for Bhutan. Technical and financial support is therefore essential, particularly for the National Commission for Women and Children (NCWC), who are mandated to co-ordinate the implementation of the provisions of the legislation.

Other achievements include the prohibition of child labour under the Labour and Employment Act (2007), the establishment of Women and Children Divisions by the Royal Bhutan Police through the Police Act (2009), and the drafting of the Child Adoption Bill, which is currently under discussion by Parliament. There is now 99.9% birth registration of children (BMIS, 2010) which ensures their recognition before the law and helps safeguard their rights. Moreover, the Royal Bhutan Police have established a complaints and response mechanism in addition to two Women and Child Protection Units. The monastic body has established an expert child protection committee and engaged a full-time child protection officer. Additionally, secondary assessment of children living with disabilities is being conducted and this will provide much needed data on the prevalence and situation of children living with disabilities. Corporal punishment in schools is no longer permissible but implementation remains a challenge, and more support is required to abolish corporal punishment at home.

other districts enjoyed high levels of access (>90%). The MTR of the Tenth Plan however raises concerns about the coverage levels of drinking water in rural areas in the light of reports of many water sources having dried up. The review also highlighted concerns about the quality and “safeness” of the drinking water and the need to periodically ascertain that high levels of water and sanitation coverage do not decline.

According to the Bhutan Living Standards Survey (BLSS) 2007, the improved sanitation coverage in Bhutan was 96.4 percent.¹⁷ On the basis of the BMIS 2010’s survey methodology to exclude pit latrines without slabs as unimproved sanitation facilities, the percentage of population in Bhutan with access to improved sanitation (non-shared) is now estimated to be much lower at 58.4 percent. This reflects considerable efforts required to scale up improved sanitation levels to the targeted 83.5% by 2015.

Notwithstanding Bhutan’s positive environmental context and strong political commitment, there are major challenges pertaining to land degradation, potential biodiversity habitat loss, high fuel wood consumption, environmental impact of road construction and accelerated hydropower development, mitigating human-wildlife conflict, maintenance and rehabilitation of existing rural water and sanitation schemes and waste management and growing emissions from transport and industrialization. In addition to these, the MDG 2008 Report highlights Bhutan’s vulnerability to climate change impacts on the biodiversity, agriculture, hydropower, industrial and urban space and human health.

Goal 8: Develop a Global Partnership for Development¹⁸

ICT services and access to the latter have improved vastly over the years.¹⁹ Since 2000, the number of fixed line telephones per 100 population doubled from 2.4 to 5.1 in 2005 but declined down to 3.8 in 2010 due to the increased use of mobile cellular phones. All of the headquarters of all twenty *Dzongkhags* and 197 of the 205 *Geogs* now have fixed line coverage. The number of mobile cellular subscribers per hundred population has expanded exponentially from 5.96 in 2005 to 56.7 per 100 population in 2010. In absolute numbers there are over 400,000 mobile cellular subscribers. As such today mobile penetration covers more than half the population with all of the district headquarters and 203 of the 205 *Geog* headquarters having mobile coverage.

There has also been a significant growth in internet usage. In 2005, the number of internet subscribers per 100 population was at 0.008 which has now increased to 13.6 in 2010 with

¹⁷ The BLSS’s definition of the term “improved sanitation” included all pit latrines and did not differentiate between pit latrines with and without slabs.

¹⁸ The targets pertaining to ODA and debt sustainability and youth employment are reported in the other sections of the document and the section only addresses the target of making ICT more widely available.

¹⁹ Source of the ICT data cited are from the MoIC’s Annual Statistics 2010.

a total number of 94.285 subscribers. While continuing to work on providing coverage to remaining communities, the Royal Government's efforts will be to continue enhancing broadband access to the entire population that will be both reliable and affordable. Connectivity prices have already fallen drastically over the last few years, allowing Bhutan to provide competitively priced bandwidth. Some very important initiatives being taken in the ICT sector include the *Chiphen Rigphel* or Total Solutions project initiated in 2010 to promote universal IT literacy and the establishment of an IT Park in Wangchutaba.

1.5 PRESERVATION AND PROMOTION OF CULTURE

The preservation and promotion of culture is the third pillar of GNH and deemed a fundamental component of sustainable development. Indeed within a GNH values framework, there could be no meaningful development without culture. Culture is interpreted in a dynamic sense wherein it has contemporary relevance for Bhutanese people and serves as a perennial source of inspiration for generations to come. This aspect is reflected in the Constitution which recognizes "*culture as an evolving dynamic force*" and emphasizes the need to "*strengthen and facilitate the continued evolution of traditional values and institutions that are sustainable as a progressive society.*"

The Bhutan Vision 2020 values highly the function of culture in unifying, integrating and building harmony and social cohesiveness while providing society with the capability of internalizing change within tradition. The Tenth Five Year Plan further identifies the role that cultural industries including tourism can play in furthering economic development such as through broadening the economic base, enhancing employment creation and addressing rural poverty.

In pursuit of these objectives, the Royal Government since the start of the Tenth Five Year Plan has initiated numerous activities towards strengthening the cultural heritage of Bhutan. These involve inventorying, mapping and documenting the cultural heritage including oral traditions; strengthening the legal and regulatory framework through a proposed Heritage Act; developing capacity in cultural heritage management and restoration skills; establishing a national cultural center in Thimphu with a theatre, conservation laboratory and a GNH unit; undertaking preparatory work for proposing two world heritage sites in Bhutan; and developing a concept and starting preparatory works for establishing an International Buddhist University at *Dodena*. Infrastructure works pertaining to the renovation or establishment of numerous *Dzongs* and temples form a major activity under the Cultural sector and are at various stages of completion. Additionally, extensive technical assistance has been provided for the rebuilding and renovation of 57 private and 165 community temples that were damaged during the major earthquake on 21st September in 2009. Increasingly, the burden of shouldering the huge costs of preserving cultural heritage is being actively supported by private religious organizations.

A key strategic approach for the cultural sector to promote cultural interest and awareness has been to use the popular audio-visual media of television, radio and films. This has been highly successful in terms of engaging public interest, particularly with the rapid growth of the local film industry. Additionally, ICT is now being used effectively as a tool for cultural development and promotion including making it more accessible, especially for fragile and underdeveloped heritage sites or events. The Royal Government has also actively sought to establish institutional linkages and promote and support cultural exchanges with other cultural institutions and communities around the world. The high interest levels and discourse on GNH around the world and the two cultural exhibitions, namely the *Dragon's Gift: The Sacred Arts of Bhutan* organized by the Honolulu Academy of Arts and the 42nd annual Smithsonian Folklife Festival in Washington DC have showcased Bhutan's rich cultural heritage to a global audience.

A continuing challenge for the cultural sector relates to minimizing the impact of globalization. There is an imperative to ensure that the patterns of "rootless growth" are avoided that gradually allow market forces to diminish or destroy cultural diversity and engender faceless cultural homogenization. Changes in traditional social value systems are already quite noticeable and becoming increasingly manifest in social behavior such as rising trends of ostentatious consumerism, drug abuse among youth, delinquency, desecration of temples and religious edifices, etc. Traditional values that once were the basis of the sound environmental conservation practices are possibly eroding and economic values, to an extent, are gradually overshadowing considerations for the natural environment.

Several other constraints affecting the effective conservation and promotion of cultural heritage relate to the dire shortage of financial resources to implement appropriate conservation activities; the lack of sufficient equipment and facilities and the weak institutional and human resource capacity within the cultural sector. Additionally, many national treasures continue to be housed and displayed in buildings that are either dilapidated or unable to provide suitable conditions required for their safe preservation.

The lack of development assistance for the cultural sector is best illustrated by the lack of funding for the Bhutan Cultural Trust Fund that was established in 1999 with an initial capital endowment of Nu.31.3 million. The Cultural Trust Fund was created to help address the resource gap issue in the cultural sector but has just Nu. 45.86 million at present and can only be operationalized once the total fund size reaches the equivalent of US \$ 5 million.

1.6 GOVERNANCE DEVELOPMENTS

Good Governance is an important and fundamental pillar of GNH and is being pursued in Bhutan through broad based participation in democratic processes, ensuring transparency, efficiency and accountability in public administration, strengthening the rule of law and preventing corruption. This strong commitment by the Royal Government has been mirrored by the historic changes in the political governance structures and the implementation of far-reaching reforms in public sector management.

After years of democratization processes and the steady devolution of political powers initiated by the Monarchy itself, Bhutan became the world's youngest democracy in 2008 following its first parliamentary elections that were endorsed as free and fair by international observers. The institutions of democracy, while still young, are taking root firmly and provide a solid foundation for ensuring the rule of law and transparent governance with effective checks and balances. Efforts are ongoing to further strengthen the democratic institutions and processes to consolidate these notable governance gains and the following sections provide a brief narrative on recent developments in strengthening good governance in Bhutan.

1.5.1 Decentralization

Bhutan has experienced a long period of phased decentralization and local government reform measures that began three decades ago. Current decentralization initiatives are part of this gradually evolving process of empowering people to participate in planning and influence decision-making and outcomes in all aspects of local development. Some of the major milestones in implementing decentralization include the formation of the *Dzongkhag Yargye Tsogdue* (DYT) and *Geog Yargye Tsogchung* (GYTs) in 1981 and 1991 respectively; the creation of autonomous municipal city councils or *Thromdes* with elected representatives in 1999; the ratification of the DYT and GYT Acts 2002; the election of *Gups* based on adult franchise and their appointment as chairperson of the GYT in 2002; the introduction of *Geog*-based planning over the Ninth Plan; the enactment of the Local Government Act 2007 which translated the important constitutional principle of decentralized governance into law and mandated the formation of local governments for the development, management and administration of areas under their jurisdiction; the establishment of the Department of Local Governance. Additionally, after the formation of elected local governments in four *Thromdes* and all twenty *Dzongkhags* will effectively establish the third tier of government. At the municipality level the four main towns of Thimphu, Phuentsholing, Gelephu and SamdrupJongkhar elected their mayors and other officials on January 21st and with the delimitation of all 205 *Geogs* 1,042 village-level constituencies will go for elections in 2011.

Over the Tenth Plan period, the Royal Government has initiated proactive steps to take decentralization to its logical conclusion wherein fiscal decentralization becomes a reality over time. Rationalized discretionary grants have been provided for all local governments based on a weighted formula that takes into account factors such as population, poverty and geographical size. In addition to annual grants provided in a 60-40 ratio shared between *Dzongkhags* and *Geogs*, local governments also receive earmarked grants from central agencies for various development activities and can generate additional funds from rural taxes and locally mobilized resources. In total, local governments over the plan will receive nearly one fourth (19%) of the total outlay which amounts to Nu. 27.417 billion.

A major challenge lies not only in devolving authority but in effectively building up the capacity of those at the grassroots to plan, implement and monitor development activities which will require considerable inputs over a long period of time. Only then can the Bhutanese truly “own” the development process as envisioned in the Vision 2020.

1.5.2 Public Sector Management

Several civil service reforms have been implemented to enhance good governance. At the core of these recent reforms was the introduction of the position classification system in 2006 to promote meritocracy in the civil service and uphold the highest standards of efficiency, transparency, professionalism and accountability. The Royal Government completed an organizational development exercise to define the optimal size of the civil service, structures, capacity building and staffing. Additionally, a grievance cell was created within the Prime Minister’s Office in 2008 as a platform for the public to express their grievances to help improve public service delivery. The Royal Civil Service Commission was reconstituted in 2009 on the basis of constitutional provisions and a Chairperson and four new commissioners appointed.

An important reform that is currently underway is the administrative burden reduction exercise to improve public service delivery. The administrative burden reduction exercise monetized the time and resources that Bhutanese spend on accessing services and this was found to be substantial and costly. The Royal Government through this reform will reduce red tape and speed up services significantly in all sixty three public agencies. Overseeing this is a multi-sectoral task force and the Improving Public Service Delivery System (IPSDS) Office under the Cabinet Secretariat. Of the listed 200 services, 33 services will be delivered on priority basis before December 2011 using e-governance and one-stop windows. Some of these key public services include simplifying processes pertaining to obtaining business licenses, security clearances, forest permits and environmental clearances, building approvals, loan clearances, tax refunds and facilitating land transactions. For instance using

e-governance, people in far flung and rural areas could apply online for firewood, flag and fencing poles without travelling to the district headquarters, track the status of their applications online and secure the necessary permits or certificates locally from their *Gup's* office. Additionally in a co-related activity, the recent Government-to-Citizens (G2C) initiative is currently involved in simplifying of up to 110 processes including simplifying licensing for micro and small businesses.

In a bid to further strengthen the efficiency and effectiveness of public sector services, compacts that include time-bound performance targets, have been signed between the Prime Minister and various Ministries. For example, the Ministry of Labor and Human Resources has committed to improving the efficiency of vocational education and training (VET), increasing the number of VET graduates, and improving their employability.

1.5.3 Civil Society and Media

While more traditional forms of civil society did exist in Bhutan in the past, the growth and emergence of more formal or modern civil society organizations and the private media in Bhutan are essentially linked to the democratization era of recent times. Since the enactment of the CSO Act 2007, the formation of the CSO Authority in March 2009 and the promulgation of the CSO Rules and Regulations, thirteen CSOs have been formally registered and nine NGOs listed though many more exist and are yet to formally register. A full time working Secretariat headed by the Member Secretary of the CSO Authority was opened on 11th February, 2010. Civil society entities in Bhutan are engaged in a wide range of activities from business interests and motor biking to animal rights and youth welfare issues.

With civil society anticipated to proliferate rapidly, it is envisaged that CSOs will help strengthen the foundations of democracy in Bhutan and build social capital in keeping with the noble spirit of sharing "*kidu*" for the realization of a more progressive and happier Bhutanese society. Strengthening CSOs to complement government efforts to reach out to the unreached and vulnerable populations will require additional resources.

Similarly, a free and independent media has a critical role to play in rooting democracy and facilitating prospects for good governance. Access to information for the public has improved vastly as compared to the past especially after Bhutan's transition to a democracy. There are now seven local newspapers that publish on a daily or bi-weekly basis in English and Dzongkha, though the readership base still remains narrow and urban-based. Media editorials and news content are not censored and exhibit very robust, highly outspoken and independent views mirroring the growth of a vibrant and independent press. Internet access has grown impressively with both free dialup internet services and relatively low-priced

broad band facilities available throughout the country. All international television channels are available and cable television networks are fully operational in all but one district and television is found in about a third of all Bhutanese households. Bhutan Broadcasting Service (BBS), as the national public service broadcaster, provides both radio and television services across Bhutan and currently, forty four towns in Bhutan can watch BBS TV directly while its FM radio has nationwide coverage.

There is a strong legal framework in place that supports and protects the freedom and independence of the media. Bhutan's Constitution guarantees freedom of speech, opinion and expression, the freedom of the press, radio and television and other forms of electronic dissemination of information. A draft Right to Information bill (RTI) is also to be submitted to Parliament in 2012 and will further strengthen transparency and accountability in governance. However, it is already a fundamental right guaranteed under the Constitution. Provisions under the draft RTI in its present state permits any individual to demand information from any agency (with a few exceptions) which must be provided within a certain period. Most government agencies also have web sites containing adequate information about the organization and publish annual reports and various publications. To promote e-governance and enhance public access to information, a government portal has been established. Additionally, the constitutional bodies publish detailed annual reports that are widely available in print or electronic media. It is also mandatory for Local Governments to publish annual reports on the various activities conducted in their communities.

CHAPTER 2

**THE CHALLENGE OF POVERTY AND
UNDERDEVELOPMENT IN RURAL BHUTAN**

2.1 INTRODUCTION

Bhutan has done remarkably well in terms of both economic growth and poverty reduction. Over the last three decades, living conditions have improved vastly from a time when virtually everyone was extremely poor. However, despite these considerable advancements poverty still affects the lives of around a quarter of the population, the overwhelming majority of who live in rural Bhutan. Within the context of a GNH values framework, the prevalence of poverty to any extent is deeply unacceptable and its eradication represents a moral and ethical imperative for the Royal Government.

The Royal Government as such has been and remains firmly committed to various international development goals, including the MDGs and the SAARC Development Goals that place poverty reduction at the heart of development initiatives. Indeed, Bhutan's Tenth Five Year Plan (2008-2013) emphatically places poverty reduction as the core objective and theme with the stated target of reducing the percentage of the population living below the national poverty line to below 15 percent.

While there is broad consensus that Bhutan is on track to achieve its poverty reduction targets, this certainly does not imply that the task will be easy. Contrarily, it is fraught with enormous challenges and constraints and progress is highly uneven across *Dzongkhags* and *Geogs*. Moreover, within the GNH development framework, poverty has been viewed within a broader and multidimensional context that takes into consideration various other facets of human deprivation. Scaling down multi-dimensional poverty comprehensively in a rural context with vastly dispersed communities that are remote and distant from roads and markets will be truly demanding not to mention costly as efforts to bring isolated communities into the mainstream of development reach farther into the rural hinterland.

The task is made all the more complex and difficult in the light of the highly capital intensive growth trends and the much slower growth rates in sectors such as agriculture that are vital for the poor. Enhancing access to arable land, irrigation, technology and finances to transform subsistence agriculture and enhance agricultural productivity with increased commercialization of agriculture remains critical. Enhancing non-farm income generation opportunities and developing viable rural enterprises and cottage industries to ameliorate the high levels of underemployment prevailing in Rural Bhutan is equally important. There is also the issue of enhancing public investments into education, health and basic infrastructure in rural areas. The vast scope of activities that must necessarily accompany efforts to alleviate multidimensional poverty needs to be viewed within the larger context of integrated rural development, including the vitalization of local economies in rural Bhutan as emphasized as a critical strategy within the Tenth Five Year Plan. The need to stimulate growth in the rural economy in this context is absolutely critical to alleviate poverty conditions and to that

extent the development of basic infrastructure like roads and electricity and essential social services is imperative as an initial step in this direction.

The following sections outline the poverty context in Bhutan and the key drivers of poverty alleviation including the extremely relevant factor of road and market accessibility. The section also factors in for the first time multidimensional aspects of poverty and highlights the challenges and constraints confronting Bhutan in this regard.

2.1.1 *Income Poverty Incidence and its Rural Dimension*

Income poverty measurements are a recent occurrence and have only been initiated over the last decade with poverty data not available prior to 2000. The Bhutan Poverty Analysis Report (PAR) 2007 estimated that 23.2 percent of the population lived below the national poverty line which was established at Nu.1,097 a month, a figure that works out to less than US\$1.25 a day, the newly established international poverty line. As such, most of the poor in Bhutan can be categorized as the chronic poor whose situation can only be improved through sustained efforts over a considerable period of time. In absolute numbers, 146,100 Bhutanese are still poor, 98 percent of whom live in rural Bhutan. Clearly, poverty is predominantly a rural phenomenon in Bhutan. Poverty levels have declined from 31.7 percent in 2003 and 36.3 percent in 2000 and the country remains firmly on track to achieve the MDG target of halving the poor.

The decline in poverty levels has largely been due to the sustained economic growth and effective redistributive policies of the Royal Government through a pro-poor budget with sustained human capital investments. An analysis of the public expenditure framework reveals a strongly pro-poor bias. Moreover, the Royal Government has over the last decade channeled tremendous resources for infrastructure development in rural Bhutan, including expanding the road and communications network that has facilitated greater access to markets for many distant communities.

Between 2004 and 2007, there have been moderate reductions in both the poverty gap and poverty severity ratios which respectively declined from 8.6 to 6.1 percent and 3.1 to 2.3 percent. Similarly in rural areas, the poverty gap and poverty severity ratios also declined from 10.5 to 8.1 percent and 3.8 to 3 percent respectively reflecting a slightly lower rate of decline than at the national level.

Comparative data from the 2004 and 2007 poverty studies suggest a decline in the levels of inequality from 0.416 to 0.352 at the national level. Inequality also declined in rural areas from 0.381 to 0.315 over that period. This is corroborated by the consumption patterns for

those years where the poorest have increased their share of the total national consumption by 50 percent while the richest have dropped their share of the total by 10 percent. There have also been relatively higher increases in share of the total national consumption for the other lower income groups as compared to higher income groups.

2.1.2 Food Poverty

Eradicating hunger and food poverty remains an important target under the MDGs and an important national objective given that this extreme form of human deprivation is deeply inimical to the notion of human happiness and well-being. The eradication of food poverty also has enormous impact on enhancing the prospects for a healthier population, reduced disease burdens, better maternal and child health and productive capacities. Given its importance, the Royal Government has the Body Mass Index (BMI) as one of the health indicators of the GNH Index.

According to the Bhutan PAR 2007, about 5.9% of the Bhutanese population suffer from food poverty or consume less than 2,124 Kilocalories a day. While this may not represent a high degree of hunger incidence by regional standards and among countries of similar income, it has increased significantly as compared to figures available for 2003 when only 3.8% of the population lived below the minimum level of dietary energy consumption. In absolute terms this translates to around 37,300 individuals who live below the food poverty line. Food poverty is also much more prevalent in rural communities with an incidence of 8% in rural areas as compared to 0.16% in urban Bhutan.

While Bhutan has met its targets of reducing malnutrition levels²⁰ in terms of halving underweight children (12.7%) and has low levels of wasting (5.9%), the country has still high levels of chronic malnutrition prevalence among children which affects about one third of all children (33.5%) due to poor dietary intake resulting in protein deficiency, poor feeding practices and disease infections.

Household food poverty in Bhutan is linked to low food production, extensive crop destruction by wild-life and pests, limited access to land and other production assets and inputs, poor food utilization and weak access to roads and markets. There is also the link to income poverty as those households that are food poor invariably are income poor. According to the Bhutan PAR 2007, 66.4 percent of the total consumption for the poorest households goes into food consumption. As such the aspect of affordability of food becomes ever more important within a context of a shifting trend to food procurement from markets, Bhutan's increasing food imports and rising regional food prices.

¹⁷ TNSB, *Bhutan Multiple Indicator Survey 2010*

2.1.3 *Spatial Disparities*

While income poverty levels have dropped over the last ten years and inequality has declined, vast differences in poverty levels across *Dzongkhags* and *Geogs* still persist. Five of the poorest districts account for half of all the poor with their poverty incidence twice as high as the prevailing national poverty incidence. The eastern, southern and central parts of Bhutan are much poorer with poverty particularly severe in Zhemgang, Samtse, Mongar, and Lhuentse. In Zhemgang 52.9% of the population live under the national poverty line and 17.8% under the food poverty line. Most of these poor districts are characterized by their distance from the core urban centers and the capital, relatively dense populations and high outbound migration. Poverty rates also vary significantly even within *Dzongkhags* between *Geogs* and national or district level poverty estimates often mask a rich diversity across *Geogs*. For instance under Chukha *Dzongkhag*, Bjacho *Geog* has a low poverty rate of 6 percent while Logchina *Geog* has an extremely high poverty rate of 55 percent.

Food poverty is largely restricted to rural communities with an incidence of 8% in rural areas as compared to 0.16% in urban Bhutan. Moreover, certain districts are known to face a high degree of food vulnerability and seasonal food deficit. Both the BLSS 2007 and the VAM 2005 reports indicate certain districts such as Samtse, Samdrupjongkhar, Mongar, Zhemgang and Trashigang have much higher levels of population suffering from food poverty. The National Nutrition, Infant and Young Child Feeding Survey (NIYCFS) 2009 also indicates a significant statistical variation in the malnutrition of children in different regions of the country with the eastern and central regions worse off than the western region. Rural-urban disparities are also apparent in the nutritional situation of children.

The recent poverty mapping exercise²¹ *Small Area Estimation of Poverty in Rural Bhutan 2010* highlights these variations in the spatial distribution of poverty and provides useful disaggregated estimations of poverty at the *Geog* level. This disaggregated data is extremely useful to help target development and poverty interventions in a more focused manner in addition to directing more of the local grants and resources to poorer communities. The poverty mapping exercise has also helped provide a clearer picture of the main drivers of poverty reduction and development such as market and road accessibility and access to basic infrastructure and services like education and electricity.

2.2 DRIVERS OF POVERTY REDUCTION AND RURAL DEVELOPMENT

¹⁷ NSB and World Bank, *Small Area Estimation of Poverty in Rural Bhutan 2010*

The regional level characteristics of the poorer districts in Bhutan pertain to their geographical isolation and limited access to road and other physical infrastructure; weaker resource base; and the generally lower levels of socio-economic development and economic activities. Remote and isolated communities, even in those districts with lower poverty incidences, were found to be more vulnerable to poverty. At the household level, there appears to be a strong and clear correlation between poverty incidence and the level of educational attainment. The BMIS 2010 reveals that while 85% of the 15-24 years old richest women are literate, only about 21% of the poorest are literate.

Poverty incidence is also seen to be linked to household size. The Bhutan PAR 2004 and PAR 2007 points out that poverty increases as the size of the household increases across all regions and in both rural and urban areas. The report indicates that on average non-poor households consist of 4.6 members while poor households have 6.5 members. The age dependency ratio²² was also found to be higher for poor households than for non-poor households. There is a broad assessment in most studies that there is no indication of feminization of poverty in Bhutan and conversely, according to the Bhutan PAR 2007, female headed households are less likely to be poor than male headed households. Some of the key drivers of poverty reduction are explored in the following sub-sections.

2.2.1 Road Access

It is well known that access to roads and markets can have an immense socio-economic impact on the livelihoods of rural communities and the rural economy as a whole, particular for the poor when made in conjunction with synergistic development efforts in other sectors. Obviously, development in other sectors can also be hampered if adequate attention is not given to transport issues.

Numerous studies and experiences, particularly from the region, show the significant development impact of road access illustrating how enhancing it can be a cost-effective path to poverty reduction. For instance, in Bangladesh road projects led to a 27 percent increase in agricultural wages, 11 percent increase in per capita consumption and a 5 to 7 percent decrease in moderate and extreme poverty besides leading to increased school enrollments²³. Similarly, in India, expenditures on roads were found to have by far the largest impact on rural poverty compared with other types of public expenditure and that for every million Rupees invested in rural roads, 163 people were lifted out of poverty.²⁴

For Bhutan, the potential payoffs for enhanced rural access are numerous. Firstly this is likely to increase both agricultural and non-farm opportunities in rural areas with increased

²²Age dependency ratio in the BLSS 2007 is defined as the ratio of persons in the dependent age ages namely below 15 and above 60 years of age to those in the economically productive ages between 15-59 years of age.

²³ IDA, *Connectivity: Providing Access That Links People to Opportunities of Health, Education, Social Needs, Trade, and Services* http://siteresources.worldbank.org/EXTRURALT/Resources/515369.../IDA_tr.pdf.P.6

²⁴ *Ibid*, p.6

market opportunities for subsistence farmers, the emergence of small businesses and enterprises and reduced agricultural input costs and lowered costs of goods consumed. In addition to creating economic opportunity and growth in rural areas, communities would enjoy improved access to health care facilities and schools, the social benefits of which have a significant bearing on alleviating chronic poverty. Equally important is the fact that road access reduces the vulnerability of the poor as efficient transport facilities are integral to stabilizing food price fluctuations and can also help facilitate relief measures and food distribution during times of natural disasters.

The various poverty surveys, project evaluation and relevant studies conducted in Bhutan too, including the recent SAEPRB 2010, reflect unequivocally an extremely strong correlation between market access and connection to road networks and poverty reduction and development in rural Bhutan. The poverty and overall accessibility maps in Fig 2.1 reveals a clear pattern between rural poverty and market access with poor areas tending to have low access to markets and poor connection to road networks. Zhemgang and several of the poorest districts have weak access to road networks and markets while areas in Western Bhutan with the lowest poverty levels are extremely well connected to markets through roads. Additionally, most of the *Geogs* with high poverty incidence even those within richer districts are characterized by weak road access to markets.

On estimating sub-national human development Indices (HDI) in Bhutan²⁵, there is also a clear link between road access and the state of human development. Five districts with the lowest HDI, namely, Samtse, Dagana, Gasa, Lhuentse and Mongar are among those districts with weak overall accessibility ratings whereas the districts such as Thimphu, Paro, Bumthang, Haa, Punakha and Chukha with high accessibility have relatively higher HDI scores. The detailed HDI scores by district are attached as Annex II.

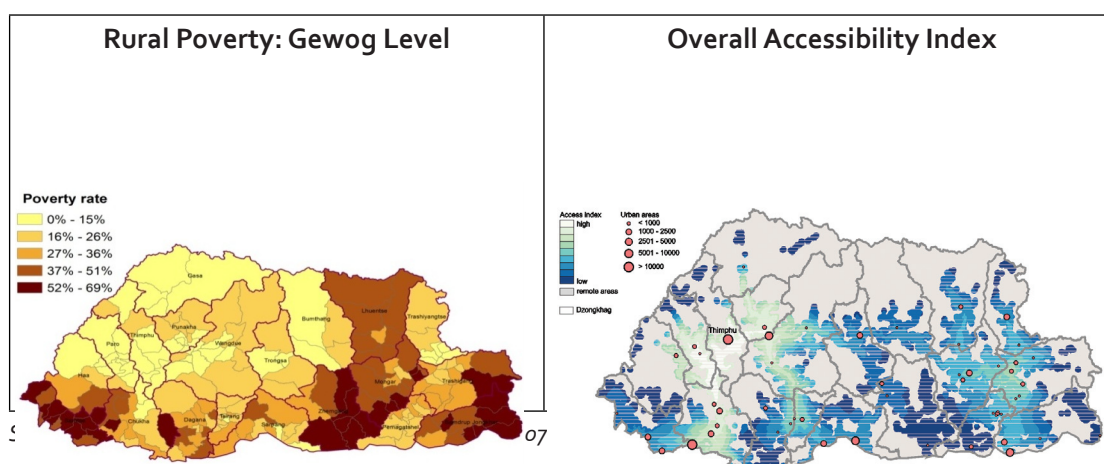
Moreover, without exception rural communities all across Bhutan have emphatically articulated road access as their foremost and primary development need. This need for enhancing rural farm and feeder road networks comes across strongly in local government discussions and frequent representations from rural communities in the National Parliament.

Bhutan's experience through various rural access projects seem to confirm these positive outcomes and benefits wherein local commerce and enterprise have expanded enormously, agricultural sales have boomed and in general, economic activities been galvanized and transformed by the new proximity to markets and goods. Under a donor financed rural access project, the average travel time and travel costs to markets, schools and health facilities in five districts were shortened by as much as 75 percent bringing about a remarkable change in reducing people's time burden and improved living conditions.

²⁵ UNDP, *Estimating Sub-National HDI in the Presence of Limited Information: The Case of Bhutan*, December 2009

In keeping with these priorities for rural communities, road infrastructure has been a priority in the implementation of the Tenth Plan. Since the start of the Tenth Plan, the Royal Government has built 442 km of roads, including both proper and feeder roads that are now near completion. About 1,350 km of farm roads have been constructed over the first half of the plan period. In addition, 28 motorable bridges and 55 suspension bridges are under various stages of completion. Extending road connectivity to all of the 205 *Geog* centres and enhancing road access (within half a day's walk) to three quarters of the population as targeted under the Tenth Plan appears to be extremely challenging within the context of the country's rugged mountain terrain and resource and technical capacity constraints. The Tenth Plan Mid Term Review (MTR) also reflects the possibility that the road access targets set may not be met in view of the above difficulties. Additionally, road access challenges include the high projected cost escalation of recurrent expenditure for the future maintenance of existing road and farm road networks. Moreover, physical access is not just about access to roads. Even if the rural poor have roads, their lack of choice over modes of transportation and other forms of market access can expose them to large transactions costs or institutional costs which need to be considered.

Figure 2.1: Poverty Headcount and Market Accessibility in Rural Areas



The Tenth Plan Mid Term Review also reflects the possibility that the road access targets set may not be met in view of the above difficulties. Additionally, road access challenges include the high projected cost escalation of recurrent expenditure for the future maintenance of existing road and farm road networks. Moreover, physical access is not just about access to roads. Even if the rural poor have roads, their lack of choice over modes of transportation and other forms of market access can expose them to large transactions costs or institutional costs which need to be considered.

2.2.2 Access to Electricity

Enhancing access to electricity offers a good opportunity to improve the livelihoods and living standards in the rural areas of Bhutan. Energy is a basic necessity for human activity and economic and social development and weak or no access to electricity has proved a major barrier to growth and development in rural areas. Poor and underdeveloped communities all around the world are often trapped in a vicious circle of poverty and underdevelopment due to energy poverty. This aspect is so important that often development and underdevelopment are adjudged on the basis of energy consumption. Appropriately, the global Multi-dimensional Poverty Index (MPI) builds in access to electricity as one of the ten multidimensional indicators of deprivation.

More specifically, most rural families in Bhutan spend a considerable amount of time in energy gathering activities such as collecting fuel wood for heating and cooking. Fuel wood consumption is also extremely high in Bhutan and could even have an adverse impact on the national commitment to maintain high levels of forest cover. As such better and enhanced access to energy services for rural communities can help reduce workloads and indoor air pollution, generate income and employment opportunities through an expansion of rural industries while also facilitating environmental sustainability.

The SAEPRB 2010 study indicates a spatial relationship between household access to electricity and poverty with more affluent regions in the west including the districts of Chukha, Paro, Punakha and Thimphu, having much higher levels of rural electricity coverage than the poorer districts. Evaluations of implemented rural electrification projects also clearly indicate highly positive impacts from electrification that are quantifiable and visible. Some key findings are that residents of electrified households enjoyed a better quality of life in terms of economic, environmental and social outcomes as compared to unelectrified households. Electrified households derived proportionately more income, encountered less smoke-induced health ailments, experienced less number of missed workdays due to illness, enjoyed better education of children, spent less time collecting fuel wood, and benefitted from better access to information.

Given the critical importance of rural electrification, the Royal Government in the Tenth Five Year Plan in a bold move advanced the Vision 2020 target of providing electricity for all by 2020 to be achieved by 2013. This entails enhancing national coverage levels from 72% to 100% and rural electrification coverage from 60% to 100%. In absolute terms, this means the provisioning of electricity to about 40,257 households. For communities in extremely remote and isolated areas where it would be prohibitively expensive and not viable to provide main-grid access, the use of solar energy is being promoted and is being undertaken in ten *Dzongkhags*. The Tenth Plan MTR indicates that the target of electricity for all by 2013 will be achieved despite the enormous constraints of last mile challenges.

2.2.3 Educational Attainment

Education is widely regarded as the best long term solution to poverty and the two are inextricably linked. Some of the key findings of poverty studies are that school participation rates are considerably lower among the poor with 60% of children from poor households attending primary schools as compared to 80% of non-poor children²⁶. This becomes even more pronounced at the secondary level where only 40% of poor children attend secondary schools as compared to 77% of non-poor children. As such, poverty is the main cause for children not going to school. The studies further indicate that a higher level of educational attainment for the head of a household translates directly into lesser chances of the household being poor and that the completion of middle secondary education is generally sufficient for an individual to escape poverty in Bhutan. The BMIS 2010 shows that about 85% of the children of the poorest and 97% of children of the richest household attend school. The SAEPRB 2010 study similarly noted that the *Geogs* where fewer children attended schools were generally those *Geogs* that tended to have higher poverty rates.

Comparing poverty incidence across districts and the HDI's education index²⁷ reflects a link between poverty and educational attainment. The top five districts with the highest education index ratings, namely Thimphu, Paro, Bumthang, Punakha and Haa are also those districts with the lowest poverty incidence. Reversely, the five districts with the lowest education index ratings, namely Dagana, Samtse, Mongar, Lhuentse and Zhemgang are those districts with the highest poverty incidences.

As reflected in Chapter 1, educational coverage has grown and there has been a rapid scaling up of enrollment levels at primary and secondary education with Bhutan close to achieving MDG 2. However, educational attainment is much lower in rural areas, particularly with regard to female literacy which in 2005 was estimated at 29 percent²⁸. This calls for the need to scale up non formal education (NFE) which has been severely constrained by resource availability and the lack of classroom space to conduct NFE courses²⁹. Rural areas are also more disadvantaged in terms of the quality of education received for the reasons indicated earlier.

Another challenging aspect is the fact that while Early Childhood Care and Development (ECCD) practices are being actively promoted they are quite new to Bhutan and have yet to pick up. In 2009, approximately 2 percent of children between 3-5 years attended ECCD centres, most of which are located in urban areas. However, ten pilot community based ECCE centres have been established and the aim is to establish 40 such centres in all twenty

²⁶ NSB, *Poverty Analysis Report 2007, 2008*

²⁷ Measured by the combined gross enrollment ratio for primary and secondary education and adult literacy rates

²⁸ RGoB, UNFPA, *Population Housing Census of Bhutan 2005*

²⁹ GNHC, *Draft Tenth Plan MTR 2011*

Dzongkhags to provide early childhood parenting education and to provide early learning opportunities. Early Development Learning Standards are also on the verge of being finalized.

2.2.4 Health

Health is a key determinant of economic growth and development, while ill-health is both a cause and consequence of poverty. There is an intimate relationship between poverty and poor health and better health is widely acknowledged to be essential for poverty reduction. Notably, there are significant differences in child and maternal mortality rates that are apparent in Bhutan while looking at the education and income background of households. For instance, a child born to the poorest family living in rural Bhutan with uneducated mother had three times the likelihood of dying by the age of five compared to one born in a rich educated family living in an urban area³⁰. Generally, the poorer districts with weaker road access do have much higher levels of infant, child and under five mortality rates. Life expectancy rates provide a summary measure of health outcomes. In comparing life expectancy and poverty incidence across districts in Bhutan, there is no discernible trend either way. Indeed, some of the poorer districts such as Zhemgang, Pema Gatshel and Samdrupjongkhar have among the highest life expectancy levels in Bhutan.

Good health also has a direct and immediate bearing on the happiness and well-being of society and is thus one of the key domains under GNH. For all these reasons, Bhutan's Tenth Plan views health expenditures as long term investments into human capital that are expected to effectively contribute towards building a GNH society and generate considerable socio-economic returns, including poverty reduction. This priority is reflected in the high levels of public health expenditure which have generally been about 4-5 percent of GDP over the last decade and comprises 6 percent of the total Tenth Plan Outlay³¹. A key focus area of health investments is being directed at improving maternal and child health.

The expansion of an integrated and strong primary health care system that effectively delivers health care services to all has been a core element of the Tenth Plan's health strategy. Primary health care coverage has reached about 95% and the challenge will be to continue removing existing disparities and reach the remaining 5%, most of who would fall under the most vulnerable, isolated and poorer sections of Bhutanese society.

The rising cost of health care services due to increased health cost and demand for quality health services has been a major concern. Additionally, various other health challenges pertain to the double burden of dealing with rising lifestyle diseases while communicable diseases are still yet to be contained fully; the dire shortage of medical doctors, nurses and

²⁶ NSB, *Socio-Economic and Demographic Indicators 2005, 2008*

²⁷ GNHC, *Draft MTR, 2011*

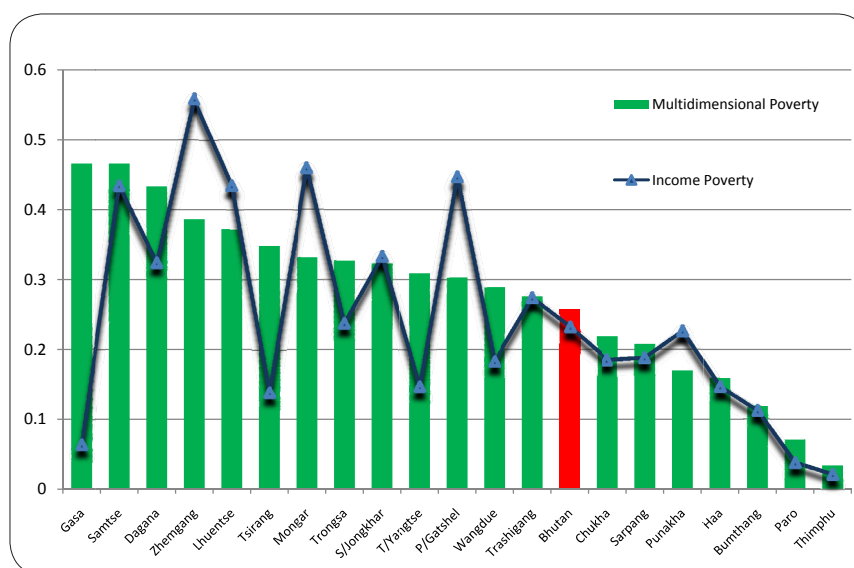
skilled health workers; and the potential impact of climate change on human health through drying up of water sources, the expansion of vector borne diseases to traditionally non endemic areas and the risk of epidemics during natural disasters.

2.3 MULTIDIMENSIONAL POVERTY IN BHUTAN

The Royal Government has espoused the view that poverty is multidimensional even though most of its available poverty reports have focused on income poverty largely due to an absence of data on other human deprivation aspects of poverty. This outlook is fully consistent with the basic development philosophy of GNH for the need to view development more holistically and beyond just income measures. Similarly, a multi-dimensional approach to poverty and its equivalent measure the Multi-dimensional Poverty Index (MPI) captures more than just income poverty at the household level. As its co-developer Dr. Sabina Alkire maintains, the MPI "... is like a high-resolution lens which reveals a vivid spectrum of challenges facing the poorest households."

The MPI is a useful index of acute multidimensional poverty and reflects deprivations in very rudimentary services and core human needs. Although constrained by data gaps, it reveals a different pattern of poverty and illuminates a different set of deprivations. The index which measures both its incidence and intensity has three core domains: health, education and standard of living which are assessed using several indicators. At the global level, the ten indicators used pertain to years of schooling and child enrollment (education); child

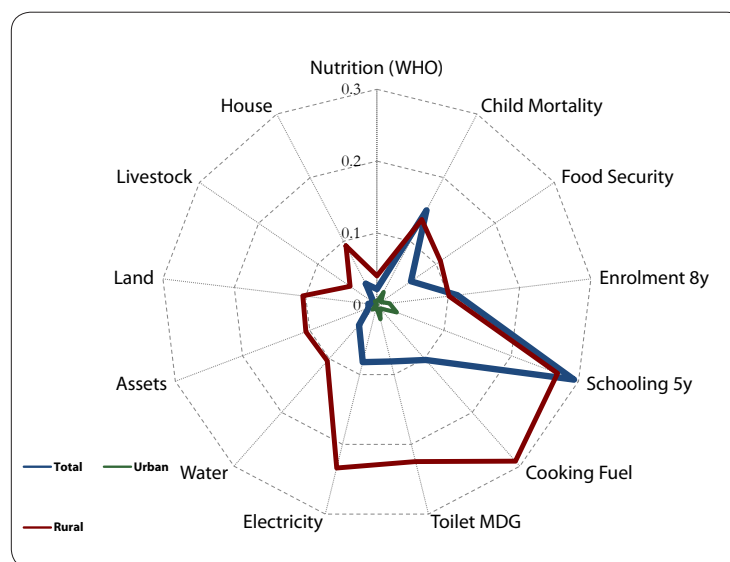
Chart 2.2 MPI and Income Poverty by Dzongkhags



mortality and nutrition (health); and electricity, flooring, drinking water, sanitation, cooking fuel and assets (standard of living).

For Bhutan, a varied MPI model with slight changes from the global model has been constructed using thirteen indicators with varying weights. What is presented in the following is a first assessment of multi-dimensional poverty in the country. Efforts to further refine the model and attune it to Bhutan's GNH index are also underway as relevant data become available. Nevertheless, the basic intent is to explore the value addition that such a measure could bring in addition to supplementing the income poverty measures that are

Chart 2.3 Censored Headcount Measure



already in use. The thirteen indicators that comprise Bhutan's initial MPI pertain to primary schooling and children out of school; child mortality, nutrition and food insecurity (health); and electricity, housing, cooking fuel, drinking water less than 30 minutes away, improved sanitation and asset ownership of livestock, land and appliances (living standards).

25.8% of the population in Bhutan is deemed to be MPI poor and are deprived in at least 4 of the 13 indicators. The MPI measure at the national level for 2010 works out to 0.12 with an average intensity of poverty at 0.45. The MPI further highlights the intensity of poverty in Bhutan i.e., the proportion of indicators in which they are deprived. For instance, 16.9 percent of the population in Bhutan is MPI poor in five or 39 percent of the thirteen indicators while there are no MPI poor in all thirteen of the indicators.

The highest levels of deprivation pertain to access to improved sanitation (pit latrines with slab), cooking fuel (if wood, dung or charcoal used), schooling (five years of school education)

and electricity. From the three core domains, education (41%) contributes the highest to multidimensional poverty followed by living standards (37%) and health (23%).

There are stark differences between multidimensional poverty levels in urban and rural areas of the country. *Dzongkhag* wise too, considerable variations exist with relatively higher levels of multidimensional poverty in Gasa, Samtse, Dagana, Zhemgang and Lhuentse. While there is a strong co-relationship between income poverty and multidimensional poverty incidences, the two however are not the same and do vary. A classic case is that of Gasa which has among the lowest income poverty incidences but has the highest level of multidimensional poverty in the country as it faces considerable deprivations in access to improved drinking water, electricity and education.

2.4 TARGETED POVERTY INTERVENTIONS

Lessons learnt from the implementation of Ninth Plan indicated that poverty reduction efforts could be better served and accelerated with specific and improved targeting. Hence, targeted poverty reduction programs were initiated in the Tenth Plan to complement mainstream development programs of central agencies and local governments.

2.4.1 *The Rural Economy Advancement Programme (REAP)*

The Rural Economy Advancement Programme (REAP) was launched in 2009 as a targeted initiative to accelerate poverty reduction in some of the most vulnerable and disadvantaged communities in rural Bhutan. Under the first phase of REAP I which was implemented in ten villages across the country, efforts were made to improve agricultural productivity through diversifying crop cultivation to enhance food security and nutritional intake, generate supplementary income through skills development in non-farm livelihood activities, and build social capital through facilitating the formation of self-help groups for mutual collaboration. For instance, farmers were trained in producing organic fertilizers, eco-food and non-food products, cane and bamboo handicrafts, banana chips, candles and organic cotton. Trainings in carpentry and masonry were also made available to promote skills development of farmers to enhance income generation during off-farm seasons and thereby reduce prevailing underemployment. REAP further mainstreams gender, youth and child specific interventions such as through the women's group formation and enterprise development in the village of Lamtang and textile weaving training in Lauri village.

While the initial phase is still ongoing, the Royal Government is already considering scaling up the above REAP activities in the second phase to 100 villages – five from each district.

Lessons learnt from the initial experience from these interventions suggest that capacities at local government level are weak and require considerable support; that coordination and communication between central and local governments and district and block administrations need to be improved upon to facilitate such interventions; and the lack of funds has been a significant constraint.

2.4.2 Land Welfare

The unique “kidu” or welfare system that is traditionally inherent in Bhutanese society still exists whereby landless families and the poor and vulnerable can always appeal to His Majesty the King and expect some form of immediate redress. This represents a critical safety net system as a root and primary cause of poverty in Bhutan has been landlessness or insufficient land. The “kidu” system has been given a further impetus with efforts to professionalize it and make it more proactive by taking welfare to the people rather than having them travel to the capital. Three regional welfare offices have been established and the *Geog* Administrative officers in all *Geogs* also function as local representatives of the Welfare Division of the Office of the Gyalpoi Zimpon (OGZ) to oversee and process welfare cases at the grass roots level. Village elders and elected representatives also play a critical part in facilitating such welfare benefits. Thousands of households throughout Bhutan have received various kinds of *kidu* dispensation from His Majesty the King, a large number of which include providing available public land to the landless and poor.



CHAPTER 3

**SUSTAINABLE LIVELIHOODS AND
EMPLOYMENT**

3.1 INTRODUCTION

Economic growth is a necessary condition for development. Nevertheless, clearly growth in itself does not necessarily translate fully into effective poverty reduction or a broad based improvement in people's quality of life unless there is an effort to ensure that growth is sustainable and more inclusive. Experiences around the world reflect that strong poverty reduction comes through ensuring sustainable livelihoods and expanding employment generating capacity of a country and decent work so that the poor are able to maximize their labor to a commensurate rise in the quality of employment and in real wages. The Tenth Five Year Plan emphasizes the critical importance of ensuring sustainable livelihoods and the creation of quality employment as a strategic means to empower the poor to lift themselves out of poverty as well as protect them from the risk of slipping back into poverty.

In Bhutan's context, growth has been robust but has been highly capital intensive and driven by sectors that are not immediately and directly relevant for the poor. Conversely, areas of the economy critical for livelihoods of the rural poor such as agriculture have exhibited low growth rates and are challenged by significant constraints. Additionally, the rural non-farm economy has not developed adequately and generated significant opportunities for business growth and entrepreneurship. Initiatives to promote community based tourism, handicraft and agro-based food processing industries have begun but are yet to make a major impact on rural employment and livelihoods. And even as unemployment remains low, rural communities continue to experience high levels of underemployment which diminishes their income generation prospects and consequently their ability to rise out of or stay out of poverty. This chapter will explore and address issues pertaining to the challenges that Bhutan faces in promoting sustainable livelihoods and employment, particularly in rural areas.

3.2 CHALLENGES OF ENSURING SUSTAINABLE LIVELIHOODS

Agriculture remains the largest employer and main source of livelihood with about two thirds of the population engaged in subsistence farming as their primary occupation³². It is also one of the sectors with the lowest productivity levels and low remuneration. The key challenges pertaining to sustainable livelihoods relate to ensuring food and nutritional security and food self-sufficiency, raising crop productivity, addressing human wildlife conflict issues and addressing the long term impact of climate change on agriculture.

Despite increased rice and maize yields, cereal production in Bhutan has been at subsistence level and only able to cater to rural demands. The MTR of the Tenth Five Year Plan notes the concern that yields per hectare for grain production is the lowest in South Asia. Bhutan is not

³² Challenges persist in terms of the data collection on agricultural wages and unskilled wages and the national labor force surveys do not provide such disaggregated data

sufficient in food grain production and has been a net importer of grains since the start of the development era. Increased urban requirements are largely met through imports while annual imports of cereals have been growing year on year. The reasons for subsistence levels of production relate to limited arable land and low productivity, inadequate market access, and high transaction costs. The situation is further constrained by frequent natural calamities, chronic wildlife crop depredation, pests and disease infection, poor irrigation facilities and a trend of labor moving away from agriculture resulting in farm labor shortages.

3.2.1 Food Security and Food Self Sufficiency

Given that chronic hunger and malnutrition gravely undermine efforts to strengthen human, physical and social capital necessary to facilitate economic advancement and poverty alleviation, ensuring food and nutritional security has remained an important development objective. The national policy directives to enhance food security in Bhutan as articulated under the Bhutan National Food Security Strategy 2006 (BNFSS 2006) are to intensify and diversify production, adopt an integrated approach to nutrient and pest management and achieve at least 70 per cent self-sufficiency in food grains (currently at 68%). Emphasis has been placed on developing and promoting high-value, low-volume cash crops that offer comparative advantages over other crops in capturing the off-season markets in India and neighboring countries; and promoting the use and breeding of superior, healthy breeds of highly productive livestock

Food and nutritional security has improved slightly in recent years as a result of increased production due to new crop varieties and improved farming practices. However, food insecurity, in terms of deficit in cereals still remains a problem faced by the majority of rural Bhutanese households. Among food grains, rice is the most important cereal and the most widely consumed staple. The Renewable Natural Resources (RNR) Census 2009 estimates that less than half (45.5%) of the rural households were able to produce enough food grains for their year round requirement and households in food deficit areas experienced an average of over 3.5 months of food shortages. The food insecure households are known to generally cope with this situation through purchases made from the market, borrowing from neighbors, bartering livestock products, transfer of remittances or generating additional income from off-farm activities.

Food poverty levels affect only about 6 percent of the population indicating a relatively food-secure population. Nevertheless, there are many *Geogs* known to experience food insecurity and seasonal food deficit with relatively higher food deficit situation. Most of the food deficit *Geogs* fall in the poorer districts of Lhuentse, Mongar, Samtse, Samdrupjongkhar, and Zhemgang. These districts not only have the lowest food consumption but experience relatively higher levels of income poverty. Zhemgang in particular has both high income and food poverty levels significantly above the national levels with more than a quarter of

the district's population consuming less than 2,124 kilo calories a day. Recent studies also indicate that many *Geogs* in the relatively well-off districts of Haa and Paro also experience considerable food shortages at certain times in the year.

On the basis of the *Vulnerability Assessment and Mapping of Bhutan 2005* report, around 40 percent of all *Geogs* indicated that as compared to the past, food security had improved, 14 percent responded that it had worsened, and 46 percent reflected that it has remained about the same. A cause of food insecurity reported by most *Geogs* is the damage of crop by wildlife or pest attacks with the problem acute in the districts of Zhemgang, Trongsa, Wangdue, Tsirang and Sarpang. The VAM 2005 report indicates that in addition to crop depredation by wildlife and pests, the other reasons for food insecurity pertain to labor shortages on farms due to rural-urban migration, shortage of cultivable land, low productivity and inaccessibility.

While Bhutan has achieved one of the targets of halving acute malnutrition, as reflected earlier 12.5% of Bhutanese children are underweight, 5.9% are too thin and 33.5% are stunted or short for their age. The underweight and wasting prevalence though quite low, conceals high regional variations with certain districts like Trashiyangtse, Pema Gatshel, Lhuentse and Zhemgang with significantly higher levels of underweight and wasting malnutrition. More importantly, chronic malnutrition resulting in stunted growth for over a third of all children remains a critical challenge that pervades all parts of Bhutan even as it is more pronounced in certain regions. More so, indications from the BMIS 2010 revealed that while most children in Bhutan are born normal, over a period of time they become stunted owing to factors like, disease and ill health, insufficient dietary intake and poor feeding practices.

The 2008 food security study "*Fighting Hunger: The Right to Food Way. Right to Food Accessibility in Bhutan: Looking at policies, legal framework and institutions*" points to a very strong link between access to market and food security. In its analysis, caloric consumption fell and under-nourishment rose with increasing distance from markets. The study highlighted that the time taken for households to reach markets irrespective of whether roads existed influenced food security due to reduced transaction costs and food prices and that access to markets facilitated access to food at times when reserves of own-production were low. The study additionally points out that the groups with higher incidences of undernourishment were all in the "far from market" category of areas. This is corroborated by the VAM 2005 Report which identifies the lack of road and transport facilities that inhibit access to markets as a serious constraint affecting food security at the household level.

Other pertinent findings emanating from this study was that most of food deficient households deemed access to landholding, crop damage caused by wildlife and shortage of farm labor as key factors influencing food shortages; that income poor households were also likely to be food poor; female headed households were less prone to food poverty; and that households with low education, low asset endowment and remoteness accounted

undermining food and nutritional security and the sustainability of rural livelihoods. It is a critical challenge that has been at the center of renewable natural resources policy debate including deliberations at the National Assembly. Wildlife depredation of crops ranks as the leading factor for substantial amount of food grain losses in rural areas and most farmers deem this to be a major problem. The Renewable Natural Resources Census 2009 reports that 56 percent of farm households on average reported wild animal depredation with damages arising from wild boar particularly rampant throughout the country. Each year hundreds of tons of crops are lost and in monetary terms. At present, there are no provisions for paying compensation to farmers for crop depredation by wildlife or any rural insurance schemes that would help mitigate such losses. However, the Royal Government recently on 8 April 2011 established the Human Wildlife Conflict Endowment Fund that will help minimize the effect of human wildlife conflict through identification and implementation of mitigation schemes like community based programmes and devolving the custodianship of nature conservation to communities.

Additionally, much of livestock ravages by wildlife are notably incurred by large predators like tigers and leopards that are endangered in the country and thereby fully protected. For instance, a study conducted in Jigme Singye Wildlife Sanctuary revealed that about one fifth of households suffered livestock losses which in monetary terms translated to between 0.3 to 18 percent of their annual income.

Crop damage and livestock depredation by wild animals does not only affect the food security of households through actual damage incurred but has tended to discourage many farmers from cultivating additional crops in some of their fields. Moreover, guarding crops at night to prevent crop damage creates considerable hardship for rural households with farmers experiencing sleep deprivation and stress. Farmers on average spend two months in a year guarding their fields.

While people are generally tolerant to wildlife, the retributive killing of predator species such as the poisoning of wild dogs is not uncommon and there is growing resentment among farmers. Concerns are that such local resentment over damage by wildlife could even reduce the receptivity and cooperation from rural communities on various other important environmental issues on forest conservation and soil and water management. To address these growing concerns, the Royal Government has developed a Bhutan National Human-Wildlife Conflicts Strategy 2008 that advocates the need for a balanced and holistic approach between conservation and livelihood concerns and affirms the positive outlook that wildlife related threats to human safety and livelihoods can be effectively managed without compromising the viability and diversity of wildlife population. The strategy seeks to integrate poverty alleviation and promote sustainable livelihoods in the management of human wildlife conflict and takes a leaf from Bhutan's own experience of integrated conservation and development in the protected areas. To start with nine model sites across

the country have been selected for implementation and based on the lessons learnt, these interventions will be scaled up to cover the entire country.

3.2.3 Impact of Climate Change on Livelihoods

As noted earlier, climate change is of serious concern to Bhutan for various reasons that include water flow fluctuations for its hydropower dams, the imminent threat of glacial lake outburst floods (GLOFs) and possible grave consequences on food and nutritional security, human health and livelihoods as the majority of Bhutanese depend on rain-fed agriculture and livestock production for their everyday sustenance. Moreover, most of its human settlements are located on steep mountain slopes and in low lying river valleys that are particularly vulnerable to climate induced landslides, flashfloods and GLOFs, This section will however focus here simply on the impact of climate change on livelihoods.

Global warming is projected to have significant impacts on conditions affecting agriculture as the latter is extremely vulnerable to climate change. In addition to agriculture, including crop and livestock production, water and forest resources as well as biodiversity are among the most vulnerable systems. It is quite possible that climate change could even aggravate heat stress in dairy animals, adversely affecting their productive and reproductive performance. Given such a scenario, there clearly are grave threats to and consequences for the food and nutritional security and livelihood of many households not only in Bhutan but all over the world.

Bhutan is particularly vulnerable to climate change given that 69 percent of its people depend on agriculture for their livelihood and live in a fragile mountain ecosystem. Agriculture is critical to the rural economy in Bhutan and provides food and livelihood activities for the majority of the population. While it may be difficult to assess the full magnitude of the impact of climate change, it is expected to affect agricultural productivity and shifting crop patterns with the impact likely to be felt most acutely by the poor who depend on subsistence agriculture and livestock production. It is envisaged that the most severe impacts of climate change on agriculture and food security would be the loss of arable land which is already limited, accelerated soil degradation and loss of soil fertility, greater pest and disease outbreaks and changes in water availability for rain-fed agriculture. There is even the likelihood of reduced rice and food grain production in the lower regions of the country where food deficit is already more pervasive.

Access to food by communities during extreme climatic conditions like floods, landslides and drought becomes increasingly difficult and impacts poverty incidence and emergency food needs. With global warming, extreme monsoon and drought conditions are

becoming perceptibly more severe with possible consequences for emergency food requirements. Transportation difficulties during worsening torrential monsoon months potentially threaten the food distribution system leading to food shortages around the country. As an adaptive measure to ensure the stability of food supply, strategic grain reserves in FCB outlets and godowns and storage facilities will need to be maintained in areas that are particularly susceptible to seasonal shortfalls of food availability.

Moreover, the impact of these adverse climate changes could be exacerbated in Bhutan due to the weak institutional and financial capacity to undertake extensive mitigating actions and adaptive responses. The lack of intra agency coordination and effective links and the weak capacity in the lead agency responsible for climate change issues remain a constraint. Additionally, there is the need to address the information gap in terms of assessing future climate change scenarios, the status and health of mountain eco-systems and their sensitivity to climate change stresses, identify land at risk from flooding and inundation, erosion impact, and effects on water resources, food grain and horticulture production, etc.

At present, some of the adaptive measures being undertaken relevant to agriculture relate to the implementation of 29 RNR programmes with adaptive strategies built into them. Specific climate change adaptation programmes for the sector include the setup of a web-based information network, the Druk Dynamic Information Network; increased emphasis placed on water resources including activities to promote rainwater harvesting; mainstreaming and integrating climate change issues across sectors; and incorporating relevant changes in national policies relating to land, food and nutrition and irrigation. A new research center is also being created that will focus on research on drought resistant crop varieties. More research must necessarily be undertaken to develop crop varieties and techniques to mitigate climate change impact on agriculture.

Other adaptive measures that the Royal Government is considering relate to diversifying crop and livestock varieties to reduce vulnerability; expanding location of crop and livestock production areas; varying farm practices to encourage soil moisture retention; diversifying livelihoods, crops and household incomes; introducing new crop varieties tolerant to temperature and moisture stress; developing early warning systems and better

Box 3.2

Eastern Himalayas ... fast becoming a hotspot of climate change from a hotspot of biodiversity

"Battles against climate change must be fought and won on individual turfs by every nation ... Small countries like Bhutan, which are most vulnerable to the impacts of climate change, are like foot soldiers at the frontline of this war. If the foot soldiers are to be successful, they need to be well equipped. I'd like to call on the support of rich countries to come forward with the resources necessary to put in place effective mitigation and adaptation measures."

Lyonpo (Dr.) Pema Gyamtsho,

Minister for Agriculture, at the Copenhagen
Climate Summit 2009

weather forecast mechanisms to apprise farmers about the variability and probability of extreme climatic events; promoting on-farm water efficient technologies and strengthening irrigation, downstream flood protection and other water management systems. The Royal Government will also be compelled to scale up agricultural productivity investments to compensate for many of the adverse effects of climate change.

3.3 EMPLOYMENT CHALLENGES

3.3.1 Labor Market Context³³

Employment status is intricately linked to poverty and economic well-being. The Tenth Five Year Plan emphasizes that any practical plan for accelerated poverty reduction must intelligently and urgently address the issue of employment as it offers the poor an escape route out of their poverty and an opportunity to enhance their human capabilities. Additionally there is a need to look beyond just unemployment rates as it is no longer a satisfactory or sufficient proxy for livelihood deprivation. Disaggregated data also strongly suggests that certain groups within the labor force in Bhutan such as women and youth often experience more employment hardship than others.

Bhutan's labor force participation rate has increased from 56.5 in 2001 to 68.6 in 2010 but has grown in a slightly erratic fashion. There has been a 14 percent annual average growth in the labor force participation for women as compared to a -3.5 percent negative growth for males in that period. As such, the gains in the increase for labor force participation have largely come from the increased participation of women in the labor market.

In terms of areas of employment, 56.1 percent of those employed work in the agriculture and forestry sector. This has understandably declined with the modernization of the economy with a gradual shift of labor away from the primary sector. There are a greater number of women (53%) engaged in the agricultural work force as compared to men (47%). About 26.5 percent are employed in the formal and informal private sector with 5.9 percent working in the public and private corporations and the balance in private businesses (20.6%). From within this subgroup of corporate and enterprise sector, the construction and hydropower sectors that represent the fastest growing sectors of the economy together account for a mere 2.4 percent of those employed. However, the latter two sectors reflect considerable employment growth prospects with the increased skilling of Bhutanese through vocational education and training (VET) to take up jobs previously taken by skilled expatriate workers.

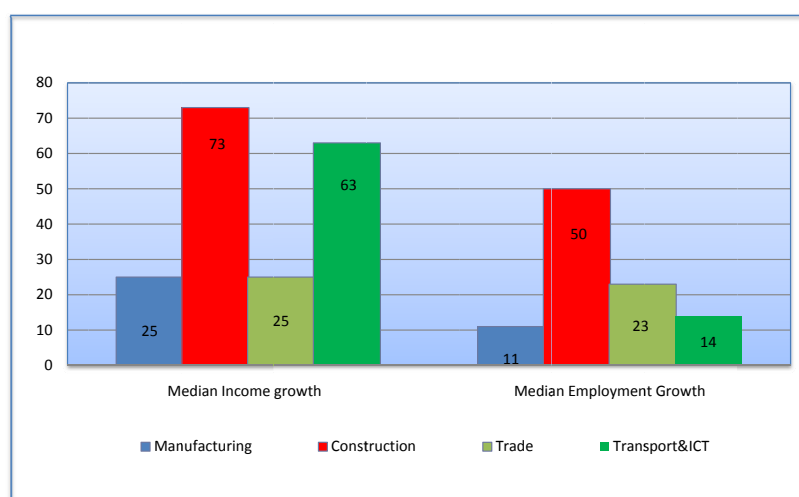
³³ Unless specified, all of the employment data presented are sourced from the Ministry of Labour and Human Resource's Annual National Labour Force Survey Reports

Table 3.3 Employment Indicators

	2001	2004	2006	2009	2010
Labour Force Participation Rate (%)	56.5	54.4	61.8	68.5	68.6
By area					
Rural	51.7	56.0	63.5	71.9	69.3
Urban	66.4	49.7	57.2	63.2	67
By gender					
Male	75.2	67.5	69.8	72.8	73.6
Female	38.4	42.7	53.9	64.6	63.9
Unemployment Rate (%)	1.9	2.5	3.2	4.0	3.3
By area					
Rural	0.6	2.6	2.5	3.0	2.5
Urban	4.1	2.0	4.9	7.5	5.1
By gender					
Male	1.3	2.1	2.6	2.6	2.7
Female	3.2	3.3	3.8	5.4	4.0

Source: NLFR 2010

The Investment Climate Assessment (ICA) 2010 report indicated that there has been increased employment generation from the private sector with the median Bhutanese firm reporting a median employment growth of 25 percent from 2006 to 2008, particularly in the construction and trade sectors as reflected in the Chart. For the future, employment growth is envisaged to come essentially from the private sector with the public sector maintaining a compact and efficient public administration.

Chart 3.4 Pvt. Sector Income and Employment Growth 2006-2008

The unemployment situation has deteriorated steadily from 1.9 percent in 2001 to 4% in 2009 but has improved to 3.3 percent in 2010. The unemployment levels are twice as high in urban areas (5.1%) as in rural Bhutan (2.5%) and higher for women (4.0%) than men (2.7%). In terms of absolute numbers there are 11,000 individuals that are unemployed of which 6,400 are women and 4,600 are men. Unemployment by district reveals that Pema Gatsel had the highest level of unemployment with 17.6%, followed by Samdrupjongkhar at 12.9%, Sarpang at 7.5% and Thimphu at 5.6%. There was no unemployment (0%) reported in Bumthang, Gasa, Trashiyangtse and Trongsa.

3.3.2 Underemployment

While unemployment is increasing steadily, it remains quite low by international and regional standards. However even low unemployment rates tend to mask the fact that sub-groups in the population may be experiencing high levels of poverty, deprivation and employment hardships including underemployment. In spite of data difficulties in making a proper assessment of the extent of the underemployment situation, there is some evidence to rationalize that underemployment levels may be quite high in Bhutan. It is known that most Bhutanese who are employed either do not have sufficient work to engage them year round or work at low levels of productivity or in subsistence activities. Many also receive little remuneration for work done which could be viewed as a disguised form of unemployment. Experience around the world also points to family workers and the self-employed in agriculture as those particularly prone to underemployment which is highly pertinent as these two groups comprise about 59 percent of the employed workforce in Bhutan.

Firstly, on the basis of time-related underemployment, about 49.8 percent of those employed in Bhutan worked less than 30 hours a week in 2010.³⁴ By most international standards, working less than 30 hours a week would constitute part time work and this suggests a degree of high underemployment. About 78.5 percent of those who worked less than 30 hours were rural people suggesting a relatively higher and accentuated level of underemployment explained partly by the seasonality of farm work.

Of those employed about 2.8 percent were in search of another job primarily for reasons to earn more income and these were largely workers from rural areas. A smaller fraction (17%) indicated that the reason for searching for another job was they wanted more hours of work. Most of those looking for another job and who wanted to earn more were between the prime ages of 24-39.

³⁴ MoLHR, *Labour Force Survey 2010*

Analyzing the nature of employment, more than a third (41.5%) of those employed are unpaid family workers³⁵ who constitute the largest group of those employed. Most of these unpaid family workers while performing essential and relevant work are nevertheless primarily engaged in subsistence farming activities (38.3%) and partially on household work (3.2%) with low levels of productivity. A majority of unpaid family workers are females and in 2010 females comprised 57 percent of all unpaid family workers. Non paid family work is one of the neglected areas in labor market analyses of the Bhutanese economy. While it is understandably difficult and problematic to make a monetary assessment of the value of non paid family work, given the high numbers of people, particularly females, employed in this activity it may be useful to assess its macro-economic relevance in the future, at least in terms of aggregate time.

Regular paid employees comprise about one fourth of those employed (25%) and overwhelmingly include those working in the formal sector. More than half of the regular paid employees work either in the civil or military service. Casual paid employees constitute about 5.6 percent of the employed most of who work in the agriculture and forestry sector. The self-employed account for 27.3 percent of the employed, about 63 percent of whom are agriculture workers.

The above arguments suggest that that the effect of underemployment possibly is widely prevalent in Bhutan and could have a much greater effect on the economy than what is suggested by a low or nominal unemployment rate. There is also the reality that continued high levels of underemployment could seriously retard progress towards sustained poverty alleviation, particularly as a cursory analysis of the issue points to the poorer sections of society and rural workforce being most vulnerable in this regard. A first step would be to determine factually the extent of the problem and highlight those labor groups that suffer from this economic phenomenon to devise appropriate policy responses.

3.3.3 Employment Focus by Special Groups: Women and Youth

The engagement of women in the labor force reflects a positive trend of increased participation as suggested by the annual National Labor Force Survey (NLFS) reports. Women's participation in the labor market has increased from a mere 38.4 percent in 2001 to 63.9 percent in 2010 reflecting an annualized average growth rate of some thirteen percentage points in that period. Women have a stronger presence in the agriculture and forestry sector as compared to men with about 2/3 of the women employed working in this

³⁵ Unpaid family worker in the NLFS 2010 is defined as a person who helps in an economic enterprise operated by a member of his/her family without payment of wages or salary (e.g. a daughter who helps in hand-loom weaving etc.)

sector as of 2010. The other areas where women are employed are in the trading (10.5%), manufacturing (5.1%) and public administration (4.7%) sectors. Occupationally, there are more women working as skilled agricultural workers, senior officials/managers, service workers, craft and related workers. They have a weaker presence though as professionals, technicians and associated technical professions, plant and machine operators/assemblers, elementary occupation workers and armed force personnel.

Table 3.5 Youth Labor Force Participation Rates (LFPR) and Unemployment (UER) Trends

Age Groups	2004		2006		2009		2010	
	LFPR	UER	LFPR	UER	LFPR	UER	LFPR	UER
15-19	24.1%	7.2%	26.3%	6.5%	36.3%	20.8	23.6%	6.5%
20-24	50.5%	4.0%	57%	11.4%	66%	10.8	58.8%	10.4%
15-24	35.2%	5.5%	40.6%	9.7%	50%	14.7%	40.4%	9.2%
All Age Groups (15-65+)	54.5%	2.5%	61.8%	3.2%	68.5%	4.0%	68.6%	3.3%
% unemployed youth to total unemployed	41%		59.7%		68.2%		46.4%	

Source: NLF Surveys 2004,2006,2009,2010

There appears to be no marked gender differences in occupational distribution except in the military, heavy equipment operation and technical professions and the situation has improved over the years where more women are now engaged in what were more male oriented occupations. The unemployment rate though has been and continues to be higher for women than for men over the last decade. Over the last five years, unemployment rates for women stood at about 57% higher than that for men.

In assessing underemployment through certain proxy indicators, there also appears to be a higher level of underemployment among females. More women are engaged in subsistence work with considerably higher levels of women engaged in subsistence agriculture as unpaid family workers. Notably, 61.5 percent of women employed work in agriculture. Additionally, close to half (48.6%) of all women are unpaid family workers as compared to about one third (34.8%) for men. The number of women employed in the regular paid employee category that in general have higher earnings prospects is half that of men. As such the number of men paid more than Nu. 5000 a month in the regular paid employee category (52,400) is almost twice the number of women (27,900) in that income group. The lack of data in other employment categories prevents further disaggregated analysis of earning capacities.

There is virtual gender parity with regard to self-employed agricultural workers and only a marginally higher ratio of men engaged in casual paid employment. Women who work

less than 30 hours are also only fractionally higher than for men and arise due to their more dominant presence in agricultural work.

Youth employment remains a significant challenge in Bhutan as it is around the world. Young people in Bhutan account for 16.7 percent of the economically active population but constitute more than 46.4% of those unemployed. Unemployment is particularly acute in certain age groups with unemployment high for females between the ages 15-19 (8.2%) and 20-24 (12.3%) as compared to the national figures of 3.3 percent. There is as such a very strong need to address and tackle female youth unemployment issues as this has been a chronic problem. While unemployment has been identified as a critical challenge for the youth, it is clearly a much more severe issue for young women than it is for young men.

Over the years youth unemployment levels have been between two to three times higher than the average of all age groups. In 2010, at 9.2 percent, it was almost three times the national unemployment rate. As such the unemployment situation in Bhutan affects youths disproportionately and is essentially a youth issue. Traditionally, the unemployment levels have been particularly acute for urban youths between the ages of 15-19, particularly young urban females.

This may be attributed to the fact that Bhutanese youth enter the workforce 'at the end of the queue,' and have relatively lower skills base and experience than older groups which tends to place them at a structural disadvantage. The job market has also skills needs and demands that many of the young people do not possess while many of the young people prefer to work in white collar jobs in the civil service and corporate offices and are often reluctant to take up available jobs that are taken by expatriate labor.

The challenge of youth employment is likely to exacerbate given that about 31,000 job seekers will enter the labor market from now up to 2013 with a large majority of them without the necessary skills or education demanded by the market. A key priority of the Royal Government will be directed at increasing the number of technicians through vocational education and facilitating their entry into jobs and promoting self-employment and entrepreneurship development through various skills development activities.

CHAPTER 4

**FINANCING DEVELOPMENT AND AID
EFFECTIVENESS**

4.1 INTRODUCTION

Since Bhutan embarked on its development activities in the early sixties, it has received substantial amount of development assistance inflows which has helped transform the country. It is widely accepted that aid has been effectively utilized and yielded significant results with a positive trend of increased self-reliance.

<i>Table 4.1</i>	2001-2005	2006	2007	2008	2009	2010
Grant Inflows in Million Nu.	4,169 (average)	6011	5,935	6,575	10,423	13,314
Grant Inflows as %of GDP	16.4% (average)	13.8%	16%	12%	17%	18%
FDI in Million Nu.	262.8 (average)	3,238	1,198	710.8	534.6	580
Remittances In Million Nu from NRBs	-	70	77.8	147	191.9	-

Source: MoF, BPFSS

However, there are significant resource challenges. Some of these challenges will be to maintain debt and debt servicing ratios to manageable levels, contain rising recurrent expenditures that will significantly push up the fiscal deficit and address issues of possible declines in aid inflows that could severely compromise past development gains. Macroeconomic and fiscal projections also indicate that Bhutan will need the financial space³⁶ to deal with pressing infrastructure and social investments to achieve its national goals and global compacts and that this financial space is likely to be constrained in the critical period leading up to the milestone dates of 2015 and 2020, especially if ODA resources were to decline. This must also be viewed from the political context of enhanced and rising expectations of the Bhutanese people from democracy to deliver increased levels of prosperity and equitable development, outcomes that would invariably shape the future of democracy in Bhutan.

4.2 TRENDS IN EXTERNAL INFLOWS (ODA AND FDI)

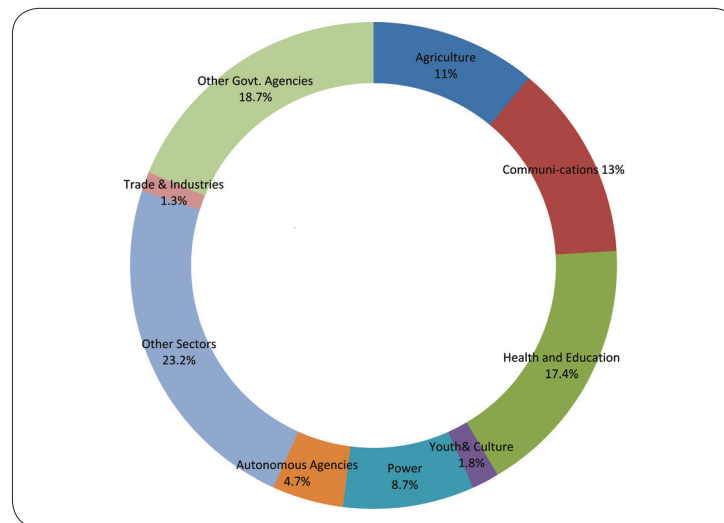
Official Development Assistance (ODA) constitutes a critical development input, financing as it does a very large portion of the total capital expenditures. Between 2005 and 2010, external grants amounted to about 15.5 percent of GDP and on average Bhutan received about US\$ 175 million a year. This has helped finance about a third of the total budgetary expenditure over the last five years. In the last two years since the onset of the Tenth Five Year Plan, external grants³⁷ increased significantly and in the fiscal year 2010/11 external grants financed about 38 percent of the total expenditures.

³⁶ Financial space here is used as the ability of a government to mobilize external and internal financial resources to finance its development needs and priorities and involves aspects pertaining to the management and mobilization of domestic resources, foreign aid, debt, private capital flows, etc.

³⁷ Excludes concessional loans from donors

While this represents an increase in absolute terms, ODA has declined relatively in its share of financing total development expenditures and in terms of its proportion to GDP. In the first half of 1980s, ODA accounted for over 50% of GDP and also helped pay for 70% of Bhutan's total budgetary expenditure but this high dependence has come down significantly reflecting a growing trend of self-reliance even as aid inflows still constitute a critical input particularly to underpin its massive capital expenditures over the Tenth Plan period. In terms of development assistance, India has been and remains Bhutan's largest development partner. Over the past decade the Government of India has contributed to about 64% of the total grant inflows. The other important donors were the ADB, Austria, Denmark, EU, Japan, the Netherlands, Switzerland, the UN Systems and the World Bank.

Chart 4.2 Grant Assistance by Sector 1999-2009



In terms of the sectoral allocations, the Health and Education sector received the largest share of grant assistance over the last decade at 17.4 percent of the total grant support. Over the last five years though, the social sector has been receiving an even higher share of the total grants at 20 percent. In the same period between 1999 and 2009, 13 percent of the total grants received went to the Communications sector and 11 percent was allocated for the Agriculture sector. The hydropower sector received about 8.7 percent of the total grant inflows.

FDI inflows into the country have largely been meager, comprising about 0.9 percent of GDP in 2009 and over the years has really not been substantive. With the implementation of the new Economic Development Policy and the Revised FDI 2010 policy and the joint ventures being planned by the Druk Holding and Investments, it is expected that FDI resources will

be more forthcoming, particularly in the context of several public private partnerships being encouraged in numerous economic sectors, including the hydropower sector. While not particularly significant at present, there has been a sustained growth in the remittances being sent by Non-Resident Bhutanese (NRBs) through formal banking channels. A total of dollar denominated resource inflow of Nu.191 million was recorded in 2009/2010. This does not, however, fully capture the full extent of the inflows as there are other informal channels through which money is remitted.

4.3 EXTERNAL DEBT AND DEBT SERVICING

As of March 2011, Bhutan's total outstanding external debt stood at US\$ 851.4 million, the equivalent of 50% of GDP. The debt stock is projected to grow at around 21 percent annually through the remaining years of the Tenth Five Year Plan. While these figures suggest a high level of indebtedness with a "moderate risk of distress," Bhutan's debt is deemed sustainable as about half (46.4%) of the total external debt has been incurred on account of investments for hydropower projects which by nature are self-liquidating. Nevertheless, the high level of debt servicing does place a growing fiscal burden on the national exchequer. Moreover, as grace periods expire and debt servicing for convertible currency debt begin this could put pressure on Bhutan's hard currency reserves given that it has limited capacity to earn hard currency. Needless to say, Bhutan's financing space could deteriorate and become more vulnerable, particularly in the event of declining official development assistance inflows.

Notwithstanding this, Bhutan has in place a prudent and forward looking debt strategy with a long term macroeconomic sustainability focus. Both the Debt Management Division of the Department of Public Accounts and the Royal Monetary Authority maintain a close scrutiny and watch on the debt situation with the latter managing current debt soundly and making future borrowing decisions in accordance with the Public Finance Act 2007. A concise loan procedures and regulations manual exists that among other things details standard operating procedures that are effectively in use. A system for loan and grant recording system has also been established to generate timely information and analytical reports to the Royal Government and help formulate critical decisions in macroeconomic and debt management. It is for these reasons that the IFI's have rated Bhutan highly for its debt policy.

4.4 RESOURCE MOBILIZATION CHALLENGES

The full achievement of the international development goals such as the MDGs and meeting Bhutan's Vision 2020 Goals will hinge on the continued inflow of development assistance including concessional lending as ODA still represents overwhelmingly the largest source of

external financing. The Tenth Plan Budget itself had a large projected resource gap that was originally estimated at about Nu. 24.65 billion over five years or 6% of GDP on an annualized basis. Needless to say, the shortfall in resources for financing development in Bhutan can lead to an increasing trend of rising fiscal deficits. This would further exacerbate Bhutan's high external debt situation with its rapidly growing debt service ratios.

4.4.1 MDG Financing

Bhutan through the MDG Needs Assessment and Costing exercise conducted in 2007 estimated the costs of meeting the MDGs which provides a hint of the massive resource mobilization task involved. The total cost of meeting the MDGs in Bhutan was estimated at US\$ 2.5 billion between 2006-2015, with more than a half of the total cost (US\$ 1.5 billion) required in the final five years of the MDG period from 2011 to 2015 and more than a third (US\$ 1.0 billion) required in the final three years. This estimation builds in certain recurrent expenditure costs that are scaled up significantly in the end period and is based on a stabilized population growth level of 1.3 percent.

The distribution of these MDG costs by sector show a 46.3 percent share for the social sector (education – 24.4%, health 21.9%). A core issue that surfaces frequently and has been a major issue of discussion under the Tenth Plan MTR is the long term sustainability of providing free health care services as a result of increasing health cost and demand for quality health services. A recent McKinsey Study on financing healthcare in Bhutan reflected that health care costs could go up by as much as 70 percent over the next five years.³⁸

The agriculture and rural development interventions geared towards achieving the first MDG goal of reducing poverty and hunger account for 16.6 percent of the total projected costs. Water supply and sanitation costs are anticipated to absorb 6.5 percent. Non-core MDG interventions in the energy and transport sectors and certain cross cutting areas that nevertheless contribute towards the achievement of the MDGs collectively comprise 29% of the total estimates.

Clearly, much of the financing of the MDGs upto 2015 will depend on sustained domestic revenue growth and continued levels of ODA, particularly grant financing. At present, the total national budget is sustained to a large extent by ODA even though Bhutan has become more self-reliant over the years. Any decline in the aid inflows is only likely to push up fiscal deficits and in the long term the total outstanding debt stock. With debt servicing increasingly absorbing a large part of the available budget, maintaining fiscal discipline in the short and

³⁸ Kuensel, *Cost of Health Care to Go up in Bhutan*, 28 January 2010

medium term will prove to be a challenge with recourse to increased domestic borrowings necessary. Household contribution to MDG interventions by way of cost recovery could improve the financial space for financing the MDGs but may prove a difficult proposition given the levels of low household income and weak cash flows of most rural households. There is also very little likelihood that the private sector in Bhutan would have the inclination or the capital and capacity to inject investment and resources into the non-core MDG areas such as rural energy or road infrastructure let alone in the core MDG interventions.

As such the role of ODA inflows will prove to be vital until such time as a significant part of the debt stock has been worked off and revenue growth increases to a level that comfortably sustains debt servicing. Building in into future ODA financing of capital investments a certain amount of resources to finance recurrent expenditures would also help mitigate the costs of ever increasing current expenditures that accompany new capital investments.

4.4.2 Climate Change Financing

Bhutan's climate vulnerability is coupled with a very low capacity to adapt to the adverse effects of climate change. Current estimates of financial resources needed to support Himalayan states are still uncertain and unclear but indications are that costs could go into hundreds of million dollars each year. Additionally, at present very little of the public funds committed to climate finance are channeled for adaptation efforts which are most crucial for vulnerable states like Bhutan. It is also abundantly clear that many of the LDCs including Bhutan do not have the necessary resources to address these issues on a priority basis while still tackling the formidable challenges of poverty and underdevelopment.

In this regard, the recent developments to move forward the climate change debate at the Cancun Summit in 2010 were positive. The commitments to promote transfer of low carbon technologies and establish a Green Climate Fund by 2020 that will raise US\$ 100 billion annually to help shield the more vulnerable countries from the impact of climate change and finance adaptation and emission reductions are steps in the right direction. The indicative pledge of US\$ 30 billion in fast-start finance between 2010-2012 is encouraging.

4.5 AID EFFECTIVENESS

Aid effectiveness is all about delivering development assistance in a manner that maximizes impact on development and results in improvement in people's lives. There is a strong consensus among development partners that aid has been highly effective in Bhutan and has been catalytic in the country's extraordinary socio-economic transformation from among

the poorest nations to one that today is among the fastest growing economies in Asia and stands as a medium human development country. While Bhutan is not a signatory to the Paris Declaration, the Royal Government is fully committed to enhance aid effectiveness through strengthening coordination, harmonizing development cooperation procedures, improving fiscal and financial management and ensuring better ownership and management of development results. In addition to outlining various aspects of aid effectiveness issues in Bhutan, this section will highlight perspectives from various development partners providing evidence-based insight, observations and assessment of the development progress taking place.

4.5.1 Ownership and Alignment with National Development Strategies

Ownership of the development process has been critical to achieving development results in Bhutan. Guided by its development approach of GNH, Bhutan has largely determined the spirit, content and pace of its sustainable development agenda. It has in place a long term strategy and vision (Bhutan Vision 2020) based on the GNH framework which has been strongly endorsed and supported by the country's development partners as it firmly places people and their happiness and well-being at the center of development.

Development planning moreover has consistently adopted a pro-poor and inclusive approach. Specifically, the Tenth Five Year Plan (2008-2013) reflects poverty reduction as its core development theme and primary objective. Given the strong and mutually reinforcing fundamentals with the MDGs, the Tenth Plan has integrated and internalized the MDGs and its related targets, including those for poverty reduction. Indeed, in many ways the current Plan has a MDG-Plus element to it starting with the poverty reduction target under MDG 1. Several of the Tenth Plan targets set exceed national MDG commitments and are also expected to be achieved by 2013 which would represent an early achievement of the MDGs.

Additionally, poverty alleviation is being mainstreamed as a cross cutting theme with all sectors integrating this key objective into their sector specific programmes and activities. In keeping with GNH values that income does not represent an adequate measure to assess holistic development, poverty is viewed within a broader and multi-dimensional framework of human deprivation. Resource allocation for the Tenth Plan accordingly reflects these critical priorities and is a pro-poor budget. Most donors too have accordingly aligned their overall cooperation objective within the national development framework including emphasis on poverty alleviation.

The Tenth Plan has moved away from traditional process monitoring to results based monitoring and evaluation which lays greater emphasis on the assessment of impacts and

outcomes. The approach requires final outcomes to be defined in terms of quantifiable goals and targets assessed within a five-year context. The GNH Index (GNHI) will be the tool to ensure that development truly contributes to the achievement of Bhutan's vision of GNH. This development index will seek to approximate progress towards GNH outcomes and will with a relevant GNH index screening tool enable decision-makers assess the pace and direction of development and correct imbalances in relation to GNH based priorities and shift or reallocate resources dynamically.

Donor harmonization continues to improve in Bhutan. Except for large hydropower projects that have specific project implementation units that are absolutely necessary in the context of the scale and limited capacity, most development resources and activities are channelized through national mechanisms. Prevailing good governance norms have increased donor confidence and made the extensive reliance on country systems in Bhutan feasible. Additionally, there has been a move towards utilizing a programme based rather than isolated project approach. Bhutan's donors more or less have broad areas of specialization with complimentary overlaps rather than redundant effort. However, one area that remains a challenge is in monitoring and evaluation of outcomes and results and the imperative to develop in country capacity to effectively address this gap. This assumes even greater importance when the Royal Government starts the use of GNH Index screening tools to determine budget allocation for programmes and financing development activities.

The Royal Government and Bhutan's development partners are also continually collaborating on reducing transaction costs and simplifying or streamlining processes and procedures for efficiency gains wherever possible.

4.5.2 Accountability

Ensuring transparency and accountability has emerged as the core of global efforts to improve the effectiveness of public resources towards achieving various international development targets, most notably the MDGs.

Bhutan is adjudged to perform well with regard to public sector performance and financial management, including those pertaining to transparency, accountability and the control of corruption. Following the inception of parliamentary democracy and the establishment of various democratic processes, there has been increased public participation in policy making which has further enhanced transparency and accountability in the public sector. The Executive is fully accountable for all its actions and decisions to the National Assembly which holds two sessions annually. Oversight institutions such as the Legislative and Public Accounts Committees actively scrutinize government activity. Additionally, the Parliamentary Ethics and Credentials Committee and the Financial Committee ensure ethical conduct of parliamentarians and prudent government financial management.

Auditing in Bhutan plays a vital role improving the economy, efficiency and effectiveness in the use of public resources including preventing, detecting and combating corruption. The Royal Audit Authority (RAA) is the supreme audit institution and is a constitutional body that functions independently and reports directly to the Parliament. The RAA is mandated to carry out financial statutory audits of all public expenditures reflected in the budget. On average, over the last few years the RAA has conducted 485 audits annually including 24 performance audits. The RAA will soon begin reporting on the economy and make assessments of how effectively public funds and resources are utilized.

Despite the significant rise in the scale of development activities and expenditures, there has been a steady year by year decline in the irregularities reported by the RAA since 2005. From a reported Nu.264 million in 2005, this declined to Nu.187 million in 2006, Nu.199 million in 2007 and Nu.151 million in 2008. In 2009, irregularities were assessed at Nu.348 million but this was not due to an increase in irregularities but occurred mainly on account of large overdue advances in two sectors. The Public Accounts Committee (PAC) of the National Assembly in 2009 affirmed that three-fourths of long overdue audit cases from 1983 to 2006 had been settled removing an immense backlog of unresolved issues. Following the PAC's recommendations that strict administrative actions be taken on irregularities, a 24 percent penalty is now being levied on outstanding amounts.

It is widely recognized that corruption deeply erodes development gains and that aid effectiveness can be fruitless if effective measures are not in place to actively combat corruption. Even as various perceptions-based governance indicators suggested that Bhutan enjoyed good ratings for control of corruption and rule of law, the Royal Government has taken several proactive measures to fight corruption, starting with the establishment of an Anti Corruption Commission (ACC) in 2005. Bhutan further affirmed its stand against corruption as it became a signatory to the UN Convention Against Corruption (UNCAC) in 2005 and at present is considering ratifying it. The Royal Government also strictly enforces a Zero Tolerance for Corruption Policy.

The ACC through the Anti-Corruption Act 2006 has been invested with considerable powers to curb and combat corruption. In 2008, the ACC developed several rules pertaining to gift restrictions, the debarment of corrupt firms and assets declaration. Based on its investigation of mining sector, it has also carried out a systems study on mines and minerals management to analyze the systemic flaws and provide corrective measures to prevent corruption in the mining industry. Similarly it launched a proactive study on the rural timber allotment system. The ACC has further introduced the concept of islands of integrity to strengthen organizational integrity and culture to promote transparency and accountability in the workplace and community. The organization has also initiated efforts to reduce the administrative burden and improve public service delivery. Other initiatives include the

revision of the procurement manual and the standard bidding document, implementation of corruption risk management and undertaking an Integrity Assessment. The findings of the Integrity Assessment revealed that integrity level in general is fairly good with the total integrity score of 7.44 on the scale of 0-10.

The ACC has also embarked on a pilot assessment of corruption in three organizations and published the National Corruption Perception Survey 2007. Most notably, the ACC has been working towards incorporating Integrity Pacts (IPs) in public contracting and procurement which specifically prohibits the demand or payment of bribes, collusion in bidding for contracts and other unethical practices. The Ministry of Finance has now instituted the IPs as a key component of the bidding document and is also being adopted by many large corporations in Bhutan. Public Advocacy efforts have also been undertaken by the ACC with the support of the media and civil society towards promoting a culture of integrity.

4.5.3 External Assessment of Development Results in Bhutan

With the emphasis on managing for development results, there has been a much needed shift in attention from inputs and processes to outcomes and impact. The Royal Government has only recently incorporated measurable development targets since the start of the Tenth Five Year Plan in 2008. As such, even though it may be a little too early to assess development outcomes that are only likely to materialize within a longer timeframe, an attempt is made to provide an evidence based assessment of progress over the last few years. The assessment is essentially drawn from reputed external sources and development partners to maintain a degree of objectivity and impartiality.

4.5.3.1 Macro-Economic Performance

Bhutan's development partners acknowledge that Bhutan has secured high levels of growth that have resulted in a sustained growth of per capita income. In terms of its global compact, Bhutan has surpassed its economic growth targets as required under the Brussels Programme of Action (BPoA) for LDCs which were to sustain a 7 percent GDP growth and investment ratio of 25 percent of GDP over the period 2001-2010. Bhutan's real GDP grew at 8.5% annually and investments were maintained at 47.8 percent of GDP over that period thus significantly exceeding the set targets.

The International Financial Institutions (IFI) rated Bhutan very highly on its macroeconomic performance and placed it consistently among the best performers. In 2009, the ADB's Country Performance Assessment (CPA) for Bhutan in the cluster for economic management was assessed with an average score of 4.5 from 6 which placed it as joint top economic performer with Vietnam. Bhutan was rated highly on all accounts for macro-economic

management, fiscal policy and debt policy. The World Bank's Country Policy and Institutional Assessment (CPIA) rated Bhutan with a similar score of 4.5 out of 6 for the cluster of economic management comprising fiscal and debt policy and macroeconomic management. All of these criteria reveal an improved situation from slightly lower scores (4) in 2005.

However, Bhutan tends to have very average scores with regard to structural policy issues relating to Trade, Financial Sector and Business Regulatory Environment. The International Financial Corporation's Doing Business series that compares business regulation in 183 economies provides a useful assessment pertaining to the business environment in Bhutan. The Ease of Doing Business indicator for Bhutan has improved marginally (0.05+) over the last five years but its ranking still remains low at 142 in 2011.³⁹ The chronically weak areas pertain to closing a business, getting credit, trading across borders due to high costs to import and export, protecting investors and dealing with construction permits.

Development partners in their assessments and evaluations frequently mention Bhutan's economic vulnerability and potential volatility due to single market and single commodity risks and the imperative to diversify the narrow economic base. There are also concerns over the predominance of the public sector and the nascent stage of the private sector including weak productivity levels in industry. Additionally, almost all of Bhutan's development partners are concerned about the employment prospects of the youth in Bhutan.

4.5.3.2 Social Development

Advancement on social development targets within the MDGs are used here to reflect progress towards social objectives and outcomes. As reflected in Chapter One, notwithstanding the challenges and constraints, Bhutan is on track to achieve many of the social MDGs but there are concerns about achieving these goals with full equity. The country has also emerged from a low human development state into a medium human development one which reflects considerable advancement in terms of its social goals.

The World Bank's CPIA and the ADB's CPA also provide an evaluation of the social development situation in Bhutan through their assessment of Policies for Social Inclusion/Equity cluster. The CPIA 2009 scores Bhutan reasonably high at 4.0 out of 6 for gender equality, though this has come down from 4.5 in 2005. The CPA 2009 rates gender equality in Bhutan at 4.5 out of 6 which is the highest score from all the member countries. With regard to the indicator for Equity of Public Resource Use, the CPIA 2009 and CPA 2009 scored Bhutan at 4.0 and 4.5 respectively. The latter assessment again places Bhutan among the top performers in this regard. With regard to its environmental sustainability, even as this may not be relevant in this context, the scores are the highest from among all the ranked countries.

³⁹ World Bank and IFC, *Doing Business 2011*

Table 4.3 Policies for Social Inclusion/Equity, CPIA 2009, CPA 2009

Gender Equality		Equity of Public Resource Use		Building Human Resources		Social Protection and Labor		Environmental Sustainability	
CPIA 2009	CPA 2009	CPIA 2009	CPA 2009	CPIA 2009	CPA 2009	CPIA 2009	CPA 2009	CPIA 2009	CPA 2009
4.0	4.5	4.0	4.0	4.0	4.5	3.5	4.0	4.5	5.0

Source: World Bank CPIA 2009 and ADB CPA 2009

The donor community is cognizant of Bhutan's strong social policies to ensure adequate level of access and quality in the provisioning of free social services. There is also a sense that in the new era of democratic governance there will be even greater imperative to deliver and improve the quality of social services and basic infrastructure. A key observation in this context relates to the issue of regional disparities with regard to equitable access to social and other public services wherein rural and remote regions are often more disadvantaged. The need to correct this regional imbalance through effective redistributive mechanisms such as through an enhanced version of the poverty formula-based block grant support is deemed necessary. To do this meaningfully, the building of capacity at local levels to absorb, manage and implement an increased level of development activities would be critical and is a key concern shared by both the Royal Government and its development partners.

Few development partners have raised the valid question of the sustainability of financing rising social sector expenditures including spiraling recurrent costs over the next decade given the youthful demographic profile. Additionally, the increased development cost of delivering social services to last mile communities is a related concern being voiced. Views from the donor community also suggest the need to improve health planning, management and information systems in addition to strengthening the reliability of existing health data. The long term sustainability of health care financing moreover is likely to become a serious issue with the onset of an epidemiological transition with an increasing prevalence of lifestyle related non-communicable diseases that are increasingly more expensive to treat.

Evaluation assessments by donors reflect the need for more detailed research and disaggregated data collection to address deeper gender relation challenges. This is expected to help elucidate the nature of the glass ceiling phenomenon in Bhutan for women and why despite the positive gender environment they are inadequately represented in high decision making positions in public office. Additionally, the view is that even as no formal barriers exist women are largely invisible in local government and hence there is a need to enhance capacity for women at all levels in communities across the country. There is however a clear recognition that addressing the extremely low levels of female adult literacy, particularly in

rural Bhutan remains among the first steps that need to be taken in addition to the existing non-formal education initiatives. The Royal Government shares this view and believes that simply mainstreaming gender as a cross cutting theme in development may no longer be enough and more deliberate and focused interventions are to be made.

Furthermore, strengthening the capacity of the National Commission for Women and Children (NCWC) will be crucial if the agency is to fulfill the mandate of implementing the provisions of the Child Care and Protection Act 2011. At present, Bhutan lacks professionally trained social workers and there are no services or programmes addressing the prevention or early identification of child protection. Child protection services will also have to be effectively integrated with other social services. Addressing these issues will therefore require policy attention and sustained investments.

4.5.3.3 Good Governance

Table 4.4 Bertelsmann Transformation Index (BTI) for Bhutan

	2010		2008	
	Points	Rank	Points	Rank
Status Index	4.36	# 102 of 128	3.71	#110 of 128
Democracy	4.65	# 82 of 128	3.75	#99 of 125
Market Economy	4.07	# 103 of 128	3.68	#111 of 125
Management Index	5.71	# 40 of 128	5.14	#56 of 125

BTI 2010, 2008

Table 4.5 Governance Indicators for 2009 (WGI)

	Percentile Rank	South Asia Group Average	Similar Income Group Average Percentile
Voice and Accountability	29.4%	32.8%	27.2%
Political Stability	71.2%	18.7%	25.5%
Government Effectiveness	64.8%	33.5%	21.3%
Regulatory Quality	13.8%	27.7%	24%
Rule of Law	59.4%	35.8%	21.9%
Control of Corruption	75.2%	31.6%	23.4%

Source: WGI 2009

To assess progress on governance, the Royal Government has developed Good Governance indicators and indices within the GNH Index such as the Government Performance Index (GPI), the Human Rights Index (HRI) and the Trust in Institutions Indicator. The GPI for instance also has sub-indicators that evaluate government performance and effectiveness in reducing poverty and inequality, delivering social services, providing basic infrastructure and creating decent employment. However, as these internal governance indicators have only been developed and no assessment has been carried out as yet, the following section provides an overview of external assessments of good governance performance in Bhutan. A notable aspect is that most of the governance indicators reveal a marked improvement since 2008 when Bhutan made its historic transition to a democratic system of governance.

According to the annual Economist Intelligence Unit's (EIU)⁴⁰ democracy index over the last five years, Bhutan's scores and rankings have improved tremendously. In 2006, Bhutan ranked 147 from among 167 countries with a score of 2.62. This has steadily improved over the years and in 2010, Bhutan improved its ranking by 45 positions to 102nd from among 167 states with a score of 4.68.

The Freedom House's Annual Global Survey of Political Rights and Civil Liberties 2010 reflect Bhutan as having evolved to a Partly Free state from its previous Not Free Status in 2008. The report reflects a significant improvement in scaling up political rights which went from 6 to 4 on the basis of the inception of democracy in Bhutan and various democratic institutions and processes. Ratings for civil liberties have remained at 5 for the last decade.

In terms of press freedom, the Press Freedom Index (PFI) 2010⁴¹ rated Bhutan as among the two countries with the greatest degree of press freedom in South Asia with a global ranking of 64 among 78 countries, an improvement from the PFI ranking of 70th from among 175 states in 2009 and 157th in 2003.

Bhutan's democracy ratings under the Bertelsmann Transformation Index (BTI)⁴² have improved point wise and in ranking both for the democracy and market economy status index and for its political management index between 2008 and 2010 as reflected in the Chart. The areas of weakness under the democracy status pertain to stability of democratic institutions with a cumulative score of 2.0, perhaps in view of the recentness of their establishment. It is rated highly (6.8) on the criteria of "stateness" in terms of state identity, non-interference in religious dogma, monopoly on the use of force and basic administration. On the status of market economy, scores are poor with regard to criteria pertaining to socio-economic level

⁴⁰ Economist Intelligence Unit. Democracy Index 2010. <http://www.eiu.com/democracy>

⁴¹ Reporters Without Borders. Worldwide press freedom index 2010. <http://en.rsf.org/press-freedom-index-2010>

⁴² The Bertelsmann Transformation Index (BTI) is a global ranking system that analyzes and evaluates development and transformation processes in 128 countries assessing progress towards democracy and a market economy, as well as the quality of political management.

(2), market organization (2.5) and welfare regimes (3). The areas of strong performance relate to macro-stability (7), economic performance (6) and environment policy (7).

In terms of the Political Management Index under the BTI, Bhutan scored well in 2008 (5.14) and did even better in 2010 (5.71) improving on the points scored while climbing up 16 positions to rank 40th among 128 states. The areas that Bhutan did well in were on resource efficiency (6) and international cooperation (8) which included high marks for the sub-criteria on the effective use of resources (8), credibility (9) and regional cooperation (7). The relatively weaker areas pertained to consensus-building (4.8), particularly with regard to the sub-indicator of civil society participation (4).

Table 4.6 WB's CPIA 2009 and ADB's CPA 2009 Assessments for Bhutan

D. Public Sector Management and Institutions									
Property Rights & Rules Based Governance		Quality of Budget & Financial Mgt		Efficiency of Revenue Mobilization		Quality of Public Administration		Transparency, Accountability & Corruption in the Public Sector	
IDA	ADB	IDA	ADB	IDA	ADB	IDA	ADB	IDA	ADB
3.5	4.5	3.5	4.5	4.0	5.0	4.0	5.0	4.5	4.7

Source: ADB CPA 2009, World Bank CPIA

Assessments on Bhutan under the Worldwide Governance Indicators annual series published by the World Bank Institute similarly reflect a positive picture of improving governance. In 2009, Bhutan's rating for voice and accountability improved from 20.7 and 26 percentile in 2007 and 2008 respectively to 29.4 percentile. It is however lower than that of the regional average but slightly higher than for similar income group of countries. The indicator for political stability reflects the reality that Bhutan has always enjoyed a highly stable political environment with a 71.2 percentile ranking for political stability in 2009, 72.7 in 2008 and 70.2 in 2007. Bhutan's rating for Government Effectiveness has scaled up from 59.9 and 61.4 percentile in 2007 and 2008 respectively to 64.8 in 2009. An area that has been constantly deemed a weak area over the years in the WGI report for Bhutan has been Regulatory Quality and ratings for this indicator has declined to 13.8 percentile in 2009 from already very low levels of 22.8 and 18.8 percentile in 2007 and 2008 respectively. For the indicator pertaining to the Rule of Law, the rating has marginally declined to 59.4 percentile in 2009 from 59.5 in 2007 and 60.3 in 2008.

With regard to the indicator for the Control of Corruption, Bhutan has maintained a high percentile ranking with a 75.2 score in 2009, up from 73.9 in 2007 and 74.4 in 2008. This is corroborated by the Transparency International's Corruption Perceptions Index ratings for 2010 wherein Bhutan was rated the 36th least corrupt country from among 178 scoring 5.7

on a 0-10 scale.⁴³ In 2009 and 2008, Bhutan's CPI ranking was 49th and 46th respectively with an average score of 5.

According to the IDA Resource Allocation Index 2009, Bhutan along with Cape Verde and St Lucia had the highest scores of 4.5 (1-6 scale) for transparency (under the sub cluster Transparency, and Corruption in the Public Sector) from among 77 countries that receive IDA resources. This transparency score has improved by 0.5 points from 4.0 in 2008. Additionally, Bhutan also scores well with regard to the CPIA assessments for the quality of budgetary and financial management (3.5), efficiency of revenue mobilization (4.0) and quality of public administration (4.0). Bhutan has been consistently assessed as among the top performers on these indicators for the past years since the rating systems were introduced.

On the basis of the Country Performance Assessment Ratings 2009 for Bhutan assessed by the ADB, for the cluster pertaining to Public Sector Management and Institutions, Bhutan scores an average of 4.7, which is the highest score among all countries evaluated. For the sub-cluster 16 pertaining to Transparency, Accountability and Corruption in the Public Sector the assessment is 4.7 which again reflect the highest level of transparency among the countries evaluated. The scores for Quality of Public Administration (5.0); Efficiency of Revenue Mobilization (5.0) and Quality of Budget and Financial Management (4.5) are again similarly the highest evaluated scores.

Overall, the assessment from these diverse global institutions on the basis of a wide set of governance indicators reflects a highly encouraging and positive governance situation in Bhutan. Over the last few years, the adoption of the Constitution, the transition to a parliamentary democracy and the establishment of democratic institutions has notably helped improve Bhutan's governance ratings. Notably, these appraisals also convey a picture that while there are areas that need improvement such as in regulatory quality, the situation is improving on a year to year basis. Bhutan scores particularly high in the areas pertaining to management of public resources and economic governance, containment of corruption, policies and institutional context and political and macro stability.

Bhutan's development partners highlight the further need to strengthen decentralized governance which is constrained severely by local capacity issues at both *Dzongkhag* and *Geog* level. There is also the strong perception that development engagement by donors has mainly been with the public sector and to a very limited extent with the wider private sector, including civil society. The empowerment, engagement and capacity development of the small and nascent civil society is seen to be essential to deepen the roots of democracy in Bhutan and serve the critical function of public vigilance.

⁴³ Transparency International, 2010. *Corruption Perceptions Index 2010* http://www.transparency.org/policy_research/surveys_indices/cpi/2010

4.6 CONCLUSION

As in past years, the Royal Government will continue to scale up mobilization of domestic resources including expanding the tax base, to finance its development expenditures towards the realization of its long term Vision 2020 goals, GNH and the MDGs. Improved revenues from hydropower and other exports coupled with ODA inflows contribute immensely to the sustenance of budgets, balance of payments and overall economic performance. However, the situation is delicately poised with debt levels and debt servicing rising which could affect the short and medium term financial space of the Royal Government. There has already been a significant rise in fiscal deficit over the last two years which has been covered by external and domestic borrowings which further add to the debt burden. There are also considerable resource gaps and many critical activities remain unfunded.

While the long term macroeconomic prospects for Bhutan are undeniably bright based on anticipated returns from its hydropower investments, these will possibly yield significant dividends only after 2020, once several of the hydropower projects are fully commissioned. Even then, much of the hydropower revenues will flow back in the form of debt service repayments and resource constraints will remain for some time. These are grim realities that must be factored in even as the Royal Government remains highly committed to maintaining prudential macroeconomic and fiscal management norms, just as it has done in the past.

It is within this context that any premature declines in ODA inflows would be hugely disruptive at a vital juncture when Bhutan is gearing up for the final push towards the important milestone dates of 2015 and 2020 including the consolidation of its newly established democratic system. ODA inflows help finance a major portion of capital investments that have made such a critical difference in securing Bhutan's development prospects and aspirations in its quest for GNH. Moreover, there is a genuine sense that Bhutan could possibly be at or near a tipping point in development and that many of its MDG targets and its Vision 2020 goals remain realistically within reach. The role of Bhutan's development partners perhaps assumes even greater importance in this critical phase wherein significant challenges remain to be addressed and last mile development constraints overcome to help consolidate and cement past gains and achievements.

References

- Asian Development Bank. 2010. Annual Report on the 2009 Country Performance Assessment Exercise. Manila.
- Bertelsmann Stiftung, BTI 2010 — Bhutan Country Report. <http://www.bertelsmann-transformation-index.de/fileadmin/pdf/.../Bhutan.pdf>
- Department of Public Health, MoH, RGoB. 2009. National Nutrition, Infant & Young Child Feeding Survey, Thimphu.
- Department of Revenue and Customs, MoF, RGoB. 2010, National Revenue Report 2009-2010. Thimphu.
- Economist. 2010. Economist Intelligence Unit's Democracy Index. London. <http://www.eiu.com/democracy>
- Gross National Happiness Commission, RGoB and UNDP, 2008. Bhutan's Progress: Midway to the Millennium Development Goals. GNH Commission and United Nations, Thimphu.
- Gross National Happiness Commission, RGoB, 2008. Tenth Five Year Plan Vol. 1. Thimphu.
- Kuensel, *Cost of Health Care to Go up in Bhutan*, 28 January 2010
- Ministry of Agriculture, RGoB and World Food Programme. 2005. Vulnerability Analysis and Mapping of Bhutan, 2005. Thimphu.
- Ministry of Agriculture, RGoB, 2009. Renewable Natural Resources Census 2009. Thimphu.
- Ministry of Education, RGoB, 2010. Annual Education Statistics. Thimphu.
- Ministry of Information and Communications, RGoB, 2010. 2nd Annual Statistics, 2010. Thimphu
- Ministry of Finance, RGoB, 2011. Budget Policy and Fiscal Framework Statement Revised Budget. Thimphu
- Ministry of Foreign Affairs of Denmark and GNHC, RGoB, 2010. Joint Evaluation: Danish-Bhutanese Country Programme 2000-09 Synthesis Report. Copenhagen.
- Ministry of Health, RGoB, Access to Health Services in Bhutan, 2009.
- Ministry of Health, RGoB, 2011. Annual Health Bulletin 2011, Thimphu.
- National Statistics Bureau, RGoB, 2007. Poverty Analysis Report 2007. Thimphu
- National Statistics Bureau, RGoB, 2007. Bhutan Living Standard Survey 2007. Thimphu
- National Statistics Bureau, RGoB, 2008. Socio-Economic and Demographic Indicators 2005. Thimphu

- National Statistics Bureau, RGOB, 2010. National Account Statistics 2009. Thimphu.
- National Statistics Bureau, RGOB, 2010. Statistical Yearbook of Bhutan 2010. Thimphu.
- National Statistics Bureau and World Bank, 2010. Small Area Estimation of Poverty in Rural Bhutan. Thimphu.
- National Statistics Bureau, RGoB, 2011. Bhutan Multiple Indicator Survey 2010, Thimphu.
- Office of the Census Commissioner, RGoB. 2005. Population and Housing Census of Bhutan 2005, Thimphu.
- Planning Commission, RGoB, 1999. Bhutan 2020: A Vision for Peace, Prosperity and Happiness. Thimphu
- Reporters Without Borders for Press Freedom, 2010. Press Freedom Index 2010. Washington DC. <http://en.rsf.org/press-freedom-index-2010>
- Royal Government of Bhutan and United Nations Development Programme (UNDP), 2008. Bhutan's Progress: Midway to the Millennium Development Goals. GNH Commission and United Nations, Thimphu.
- Royal Monetary Authority 2010, Annual Report 2009/2010, Thimphu.
- Transparency International, 2010. Corruption Perceptions Index 2010. Berlin. http://www.transparency.org/policy_research/surveys_indices/cpi/2010
- UNDP, 2007. The Assessment of Development Results Bhutan , New York.
- UNDP, 2009. Estimating Sub-National Human Development Indices in the Presence of Limited Information: The Case of Bhutan. Colombo.
- World Bank, 2010. Bhutan Investment Climate Assessment Report: Vitalizing the Private Sector, Creating Jobs. Vol 1: Summary Report.
- World Bank and IFC, 2011. Doing Business 2011. Washington DC.
- World Bank, 2009. IDA Resource Allocation Index and CPIA data sheet 2009, Washington DC.
- World Health Organization, 2010. Trends in Maternal Mortality: 1990 to 2008 Estimates. Geneva.

ANNEX I: BHUTAN PROGRESS TOWARDS MDGs 2011

Goal / Target / Indicator	Status
<p>GOAL 1 : ERADICATE EXTREME POVERTY AND HUNGER Target 1 : Halve by 2015 the proportion of people living below the poverty line Target 2 : Halve by 2015, the proportion of the people who suffer from hunger</p> <ul style="list-style-type: none"> • % of pop. below minimum level of dietary energy consumption • % of under-weight under-five children • % of under-height under-five children 	<p>On track</p> <p>Needs attention</p> <p>Achieved</p> <p>On track</p>
<p>GOAL 2 : ACHIEVE UNIVERSAL PRIMARY EDUCATION Target 3 : Ensure, by 2015, children everywhere, boys & girls alike, will be able to complete a full course of primary schooling</p> <ul style="list-style-type: none"> • Gross Primary enrolment ratio • Net primary Enrolment ratio • Proportion of pupils starting grade 1 who reach grade 5 • Proportion of pupils starting grade 1 who reach grade 7 	<p>Achieved</p> <p>On track</p> <p>On track</p> <p>On track</p>
<p>GOAL 3 : PROMOTE GENDER EQUALITY AND EMPOWER WOMEN Target 4 : Eliminate gender disparity in primary & secondary education preferably by 2005 & in all levels of education no later than 2015</p> <ul style="list-style-type: none"> • Ratio of girls to boys in primary education • Ratio of girls to boys in secondary education • Ratio of females to males in tertiary institutes 	<p>On track</p> <p>On track</p> <p>Needs attention</p>
<p>GOAL 4 : REDUCE CHILD MORTALITY Target 5 : Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate</p> <ul style="list-style-type: none"> • Under-five mortality ratio (per 1000 live births) • Infant mortality ratio (per 1000 live births) • Proportion of children covered under immunization program 	<p>On track</p> <p>On track</p> <p>On track</p>
<p>GOAL 5 : IMPROVE MATERNAL HEALTH Target 6 : Reduce by three quarters, between 1990 & 2015, the maternal mortality ratio</p> <ul style="list-style-type: none"> • Maternal mortality ratio (per 100,000 live births) • Births attended by skilled health personnel 	<p>On track but recent data not available</p> <p>On track</p>
<p>GOAL 6: COMBAT HIV-AIDS, MALARIA AND OTHER DISEASES Target 7 : Have halted by 2015 and begun to reverse the spread of HIV-AIDS</p> <ul style="list-style-type: none"> • HIV cases detected • Contraception prevalence rate <p>Target 8 : Have halted by 2015 and begun to reverse the incidence of malaria and</p> <ul style="list-style-type: none"> • other major diseases • No. of malaria cases & incidences (cases per 100,000) • No. of tuberculosis cases & incidences (cases per 100,000) 	<p>Needs attention</p> <p>On track</p> <p>On track</p> <p>On track</p>

<p>GOAL 7: ENSURE ENVIRONMENTAL SUSTAINABILITY Target 9 : Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources</p> <ul style="list-style-type: none"> • Proportion of land area covered by forest • Ratio of protected area to surface area for maintaining biological diversity • CO2 (per capita) emission • Proportion of population using solid fuels (wood, charcoal & dung) <p>Target 10 : Halve, by 2015, the proportion of people without sustainable access to safe drinking water & sanitation</p> <ul style="list-style-type: none"> • Proportion of population without sustainable access to an improved water source • Proportion of population without access to improved sanitation 	<p>On track On track On track Insufficient data</p> <p>Achieved Needs attention*</p>
<p>GOAL 8: DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT Target 14 : In cooperation with developing countries, develop and implement strategies for decent and productive work for youth</p> <ul style="list-style-type: none"> • Youth unemployment rate <p>Target 18 : In cooperation with the private sector, make available the benefits of new technologies, especially information and communication technology</p> <ul style="list-style-type: none"> • Fixed telephone lines in service • Telephone density (per 100 persons) • Computers in use (per 100 persons) • Internet users (per 100 persons) 	<p>Needs attention</p> <p>On track On track On track On track</p>

*BMIS 2010 Survey using new criteria for improved sanitation (pit latrines with slabs) reflects goal as not achieved and requiring attention.

ANNEX II: HDI BY DZONGKHAG

Table 1: HDI Dimension Indices for Dzongkhags*

Dzongkhags	HDI-CM (with life expectancy based on Chiang Method)	HDI-CM Rank	HDI-AM (with life expectancy based on the Age-wise method)	HDI-AM Rank
Bumthang	0.707	3	0.707	2
Chukha	0.658	9	0.668	7
Dagana	0.604	18	0.589	19
Gasa	0.576	20	0.631	14
Haa	0.670	4	0.686	3
Lhuentse	0.610	17	0.637	13
Mongar	0.613	16	0.629	15
Paro	0.709	2	0.681	4
Pemagatshel	0.665	7	0.676	5
Punakha	0.668	5	0.650	11
Samdrup Jongkhar	0.643	12	0.610	18
Samtse	0.594	19	0.585	20
Sarpang	0.656	10	0.626	16
Thimphu	0.736	1	0.727	1
Trashigang	0.616	15	0.649	12
Trashiyangtse	0.623	14	0.616	17
Trongsa	0.667	6	0.673	6
Tsirang	0.658	8	0.658	8
Wangdue	0.635	13	0.656	9
Zhemgang	0.653	11	0.651	10

Table 2: HDI Estimates for Dzongkhags*

Dzongkhags	GDP Index	Education Index	Life expectancy Index (Chiang method)	Life expectancy index (Age wise method)
Bumthang	0.742	0.633	0.745	0.747
Chukha	0.738	0.610	0.627	0.657
Dagana	0.691	0.440	0.681	0.638
Gasa	0.748	0.408	0.571	0.739
Haa	0.722	0.603	0.684	0.733
Lhuentse	0.664	0.496	0.672	0.750
Mongar	0.679	0.468	0.692	0.740
Paro	0.765	0.645	0.717	0.631

*Source: UNDP, *Estimating Sub National HDI in the presence of Limited Information: The Case of Bhutan, 2009*

Pemagatshel	0.687	0.578	0.730	0.764
Punakha	0.731	0.590	0.682	0.629
Samdrup Jongkhar	0.692	0.503	0.734	0.635
Samtse	0.672	0.445	0.665	0.637
Sarpang	0.703	0.527	0.740	0.648
Thimphu	0.806	0.722	0.679	0.654
Trashigang	0.689	0.519	0.641	0.739
Trashiyangtse	0.709	0.509	0.650	0.629
Trongsa	0.721	0.545	0.735	0.753
Tsirang	0.722	0.513	0.740	0.738
Wangdue	0.728	0.498	0.680	0.741
Zhemgang	0.677	0.526	0.756	0.749
Average	0.732	0.562	0.691	0.698
BHUTAN	0.589	0.485	0.662	0.662

ANNEX III: BHUTAN RANKING WITHIN THE ADB'S CPA

Country	A. Economic Management				B. Structural Policies				C. Policies for Social Inclusion/Equity							D. Public Sector Management and Institutions							CCPR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	Fiscal Policy		Debt Policy		Average		Trade		Financial Sector		Business Regulatory Environment		Average		Gender Equality		Equity of Public Resource Use		Building Human Resources		Social Protection and Labor			Policies and Institutions for Environmental Sustainability		Average		Property Rights & Rule-Based Governance		Quality of Budget and Financial Management		Efficiency of Revenue Mobilization		Quality of Public Admin.		Transparency, Accountability, and Corruption in the public Sector		Average		Portfolio																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263	1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339	1340	1341	1342	1343	1344	1345	1346	1347	1348	1349	1350	1351	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375	1376	1377	1378	1379	1380	1381	1382	1383	1384	1385	1386	1387	1388	1389	1390	1391	1392	1393	1394	1395	1396	1397	1398	1399	1400	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419	1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430	1431	1432	1433	1434	1435	1436	1437	1438	1439