Sustainable Development and Happiness

Bhutan's Voluntary National Review Report on the Implementation of the 2030 Agenda for Sustainable Development

Royal Government of Bhutan

United Nations High Level Political Forum

July 2018

CONTENTS

For	reword	3
Acı	ronyms	4
Exc	ecutive Summary	7
Int	roduction	10
Me	thodology and Process for Preparation of the Report	12
PA	RT I: POLICY AND ENABLING ENVIRONMENT	
	Incorporating the SDGs into Bhutan's GNH development framework	
	Raising SDG awareness and ownership	
	Institutional Mechanism.	16
	Gross National Happiness (GNH) Commission as a High Level SDG Committee	16
	GNHC Secretariat as Lead Coordination Agency	16
	SDG Working Committee	16
	VNR Task Force	17
PA	RT II: TRACKING THE PROGRESS OF GOALS	
	Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable	
	agriculture	31
	Goal 3: Ensure healthy lives and promote well-being for all at all ages	36
	Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning to all	39
	Goal 5: Achieve gender equality and empower all women and girls	42
	Goal 6: Ensure availability and sustainable management of water and sanitation for all	45
	Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all	49
	Goal 8: Promote Sustained, Inclusive and Sustainable Economic Growth, Full and Productive	
	Employment and Decent Work for All	50
	Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and for	
	innovation	
	Goal 10: Reduce inequality within and among countries	
	Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable	
	Goal 12: Ensure Sustainable Consumption and Production Patterns (SCP)	
	Goal 13: Take Urgent Action to Combat Climate Change and its Impacts	
	Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable	04
	·	
	development	66

Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainable use of terrestrial ecosystems.	inably manage
forests, combat desertification, and halt and reverse land degradation and halt biodive	ersity loss67
Goal 16: Promote peaceful and inclusive societies for sustainable development, prov	ide access to
justice for all and build effective, accountable and inclusive institutions at all levels	69
Goal 17: Strengthen the means of implementation and revitalize the Global Partnersh	nip for
Sustainable Development.	73
PART III: MEANS OF IMPLEMENTATION	74
Financing	
Domestic Resources	74
Official Development Assistance (ODA)	74
Foreign Direct Investment (FDI)	75
Statistical capacity	75
Partnership for Development	76
Science, Technology and Innovation	77
Monitoring and Evaluation	77
PART IV: THEMATIC ISSUES TO BE ADDRESSED	
Building economic resilience	
Reaching the unreached and addressing last mile challenges	
Sustaining environmental resilience	80
PART V: THE WAY FORWARD	
Policy Action 2: Rethinking Human Capital Development	
Policy Action 3: Mobilizing Resources for Environmental Vulnerabilities	
Operational Priority Actions	
CONCLUSION	Q 1



ROYAL GOVERNMENT OF BHUTAN

MINISTRY OF FINANCE TASHICHHO DZONG THIMPHU

FOREWORD

Bhutan is pleased to present its first Voluntary National Review Report to the 2018 High-Level Political Forum on Sustainable Development. As a member of the United Nations, adhering to its principles and purposes, Bhutan accords highest priority to the implementation of the 2030 Agenda on Sustainable Development. The objectives of the 2030 Agenda are consistent with Bhutan's development philosophy of Gross National Happiness which ensures that peace, happiness and wellbeing of the people remain at the core of all endeavors.

Bhutan has enjoyed peace and progress under the enlightened leadership of its monarchs, and made considerable progress towards sustainable development. As a result of sustained socio-economic progress thus far, Bhutan has been found eligible for graduation from the Least Developed Countries category. The Royal Government of Bhutan is grateful to all its development partners for their unwavering support and commitment.

The Sustainable Development Goals have been mainstreamed into Bhutan's 12th Five Year Plan (July 2018-June 2023) representing the first major step towards the implementation of the goals. Bhutan has prioritized three goals in the medium term namely Goal 1: Ending poverty in all its forms everywhere, underscoring the continued importance of poverty reduction and the shift beyond income poverty towards addressing issues of social protection and vulnerable groups; Goal 13: Take urgent action to combat climate change and its impacts, upholding Bhutan's commitment to the global community to remain carbon neutral at all times; and Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

While Bhutan has always been committed to addressing the needs of the vulnerable groups, the principle of "Leaving No One Behind" has given greater impetus to this cause. Bhutan aims to reduce both multi-dimensional poverty and income poverty to less than 5 per cent through targeted





MINISTRY OF FINANCE TASHICHHO DZONG THIMPHU

interventions. The promotion of gender equality and addressing the needs of people with disabilities have been identified as one of the sixteen National Key Result Areas of the 12th Five Year Plan. Furthermore, to enhance economic resilience, Bhutan will expand investments in tourism, organic agriculture and cottage and small industries. Initiatives will also be undertaken to create an 'entrepreneurship ecosystem' to provide a platform for innovation and generate jobs.

The next few years remain critical for Bhutan as it seeks to consolidate the achievements made and address the last mile challenges of eradicating poverty, reducing inequality and addressing the needs of vulnerable groups. Going forward, Bhutan looks towards its development partners including civil societies and the private sector to strengthen the existing cooperation with renewed vigour so that the 2030 Agenda for Sustainable Development can be attained. The Report provides an insight into Bhutan's socio-economic development progress, the remaining challenges, and identifies opportunities for continued collaboration and partnership.

(Namgay Dorji)

Finance Minister

Vice Chair, Gross National Happiness Commission

ACRONYMS

ACC	Anti-Corruption Commission	DRE	Department of Renewable
AES	Annual Education Statistics		Energy
AFS	Annual Financial Statement	DVPA	Domestic Violence
AH	Asian Highway		Prevention Act
AHB	Annual Health Bulletin	ECCD	Early Childhood Care and
ANER	Adjusted Net Primary		Development
	Enrolment Rate	ECP	Environment, Climate
ARE	Alternative Renewable		Change and Poverty
	Energy	EDP	Economic Development
AREP	Alternative Renewable		Policy
	Energy Policy	EE&C	Energy Efficiency and
BAOWE	Bhutan Association of		Conservation
2110 // 2	Women Entrepreneurs	EVI	Economic Vulnerability
BDBL	Bhutan Development Bank	2,1	Index
DDDL	Limited	FDI	Foreign Direct Investment
BFL	Bhutan for Life	FIP	Financial Inclusion Policy
BHTF	Bhutan Health Trust Fund	FYP	Five Year Plan
BLCA	Bhutan Land Cover	G2B	Government to Business
DLCA	Assessment	G2B G2C	Government to Citizen
BLSS	Bhutan Living Standard	GC	Gewog Centres
DLSS	——————————————————————————————————————	GCF	Green Climate Fund
BMIS	Survey Phyton Multiple Indicator	GCF GDP	Gross Domestic Product
DIVIIS	Bhutan Multiple Indicator	GDP	Gross Domestic Product
BNCA	Survey Bhutan Narcotic Control	GEF	
DNCA			Global Environment Facility
DNEW	Agency Bhutan Network for	GER	Gross Enrolment Rate Gender Focal Person
BNEW		GFP	
DNE	Empowerment of Women	GGLS	Group Guarantee Lending
BNF	Bhutan Nuns Foundations	CHC	Scheme
BPA	Bhutan Poverty Analysis	GHG	Greenhouse Gas
BTFEC	Bhutan Trust Fund for	GLOF	Glacier Lake Outburst Floods
DILIGI	Environmental Conservation	GNH	Gross National Happiness
BWSI	Bhutan Water Security Index	GNHC	Gross National Happiness
CBS&GNHR	Centre for Bhutan Studies	~	Commission
	and GNH Research	GNHCS	Gross National Happiness
CCPA	Child Care and Protection Act		Commission Secretariat
CEDAW	Convention on the	GNI	Gross National Income
	Elimination of All Forms of	GPMS	Government Performance
	Discrimination against Women		Management System
CoP	Conference of Parties	GPP	Green Public Procurement
CSO	Civil Society Organization	HAI	Human Asset Index
DCSI	Department of Cottage and	HIV	Human Immuno-deficiency
	Small Industries		Virus
DDM	Department of Disaster	HLPF	High Level Political Forum
	Management	ICT	Information and
DDMC	Dzongkhag Disaster		Communication Technology
	Management Committee	INDC	Intended Nationally
			Determined Contribution

IRENA	International Renewable	NHDCL	National Housing
	Energy Agency		Development Corporation Limited
IT	Information Technology	NHS	National Health Survey
IWRMP	Integrated Water Resource	NKRAs	National Key Result Areas
	Management Plan	NNS	National Nutrition Survey
IZCs	Institute of Zorig Chusum	NR	Not Relevant
KM/km	Kilometer	NRP	National Rehabilitation
KPIs	Key Performance Indicators		Programme
LCA	Life Cycle Assessment	NSB	National Statistical
LDC	Least Developed Countries	NSSC	National Soil Service Center
LDCF	Least Developed Countries	ODA	Official Development Assistance
	Fund	OGOP	One Gewog One Product
LED	Light Emitting Diode	PAR	Poverty Analysis Report
LFS	Labour Force Survey	PCB	Penal Code of Bhutan
M&E	Monitoring and Evaluation	PHCB	Population and Housing
MFCTC	Macroeconomic Framework		Census of Bhutan
	Coordination Technical	PISA-D	Program for International
	Committee		Student Assessment for
MFIs	Microfinance Institutions		Development
MoAF	Ministry of Agriculture and	PPD	Policy and Planning Division
	Forests	RBC	River Basin Committee
MoEA	Ministry of Economic Affairs	RBMP	River Basin Management Plan
MoF	Ministry of Finance	RMA	Royal Monetary Authority
MoLHR	Ministry of Labour and	RNR	Renewable Natural
	Human Resources		Resources
MoWHS	Ministry of Works and	SAPA	Sector Adaptation Plan of Action
	Human Settlements	SCP	Sustainable Consumption and
MPI	Multidimensional Poverty		Production
	Index	SDGs	Sustainable Development Goals
MRG	Mainstreaming Reference Group	SER	State of the Environment Report
MW	Mega Watt	SLM	Sustainable Land
NA	Not Available	221/1	Management
NAPA	National Adaptation Program	SLMP	Sustainable Land
1 (1 11 1 1	of Action	221/11	Management Project
NAS	National Accounts Statistics	SMEs	Small and Medium Enterprises
NCD	Non- Communicable Disease	SNR	State of the Nation Report
NCWC	National Commission for	SPP	Sustainable Public Procurement
110110	Women and Children	SYB	Statistical Yearbook of Bhutan
NDMA	National Disaster	TEIs	Tertiary Education Institutes
1 (12)(11)	Management Authority	TI-CPI	Transparency International
NDRMF	National Disaster Risk	11 011	Corruption Perception Index
NDIGNI	Management Framework	TTI	Technical Training Institute
NEC	National Environment	TVET	Technical and Vocational
NEC	Commission	TVLI	Education and Training
NES	National Environment	UNDAF	United Nations Development
NLD	Strategy	UNDAI	Assistance Framework
NEWH		USD	United States Dollar
NEWH NFE	Northern East-West Highway Non-Formal Education	VNR	Voluntary National Review
NGOs	Non-Government	WRMP	Water Resources
11008		VV INIVIT	Management Plan
	Organization	WSP	Water Safety Plan
		11911	water Safety I fall

EXECUTIVE SUMMARY

The development process in Bhutan has more meaningful purpose than economic growth alone. Our holistic goal is the pursuit of GNH, the principal guiding philosophy for the long term journey as a nation. Therefore, the SDGs find a natural and spontaneous place within the framework of GNH sharing a common vision of prosperity, peace, and harmony where no one is left behind. Just as GNH is both an ideal to be pursued and a practical tool so too the SDGs inspire and guide sustainable action.

Guided by the development paradigm of GNH, Bhutan is committed to realizing the 2030 Agenda for Sustainable Development, and intends to graduate from the list of LDCs by 2023 with the 12th FYP as the transition plan in addition to being the first major step towards implementation of the SDGs.

In line with Bhutan's commitment to the implementation of the SDGs and sustainable development, Bhutan decided to participate in the Voluntary National Review at the 2018 High Level Political Forum.

The Government adopted significant measures to create ownership of the SDGs soon after their adoption in September 2015. Policy formulation process of the Government requires all proposed policies to be screened through a GNH Policy Screening tool. The 22 variables that assess the social, economic, environmental, cultural, and psychological impacts of proposed public policies are aligned to the principles and goals of sustainable development. Likewise, out of 143 relevant SDG targets, 134 SDG targets were aligned with the indicators of the 11th FYP, excluding targets related to SDG 14 on life below water and SDG 17 on Means of Implementation. With "Just, Harmonious and Sustainable Society through enhanced Decentralization" as the overarching goal, the 16 NKRAs and KPIs of the 12th FYP are aligned to the 17 SDGs, their targets and indicators.

Recognizing the importance of ensuring participation and inclusiveness in aligning the national goals to SDGs, the Government carried out numerous sensitization and awareness programs for government agencies, Civil Society Organizations (CSOs), private sector, parliamentarians, and population at large. A communications strategy has also been developed to actively engage the stakeholders in localization, implementation, monitoring and reporting of the SDGs. A nationwide citizen survey was conducted on understand people's aspirations and expectations from the government.

To support the Gross National Happiness Commission (GNHC)/High Level SDG Committee, the GNHC Secretariat (GNHCS) has been entrusted with the responsibility to coordinate, advise, monitor, evaluate and report progress on the implementation of the SDGs in Bhutan. GNHCS is the apex agency for central planning and coordination of socio-economic development plans and programs. Within the GNHCS, to ensure smooth implementation and seamless coordination, a dedicated SDG Working Committee was established. The committee is led by the Director of GNHCS with the mandate to oversee, facilitate and guide integration, implementation and report progress status. In addition to the institutional mechanisms of the Executive Government, Bhutan has invested in additional checks and balances to help ensure SDG results are achieved. In the 9th session of Parliament in 2017, the National Assembly adopted a resolution to embed SDG oversight into Parliamentary practice, helping to "institutionalize Parliamentary efforts towards social equity, women's empowerment and good governance which formed the bedrock of democracy in Bhutan".

Bhutan has made impressive development progress over the last five and half decades culminating into successful implementation of the MDGs and fulfillment of the thresholds in 2 areas of the LDC graduation criteria – Per-capita Income and Human Assets.

Bhutan is well on track on all SDGs. Poverty rate has been brought down for both income and multidimensional poverty to 8.2 and 5.2 per cent respectively. Inequality is low with Gini coefficient at

7

¹ Proceedings and Resolutions of the National Assembly of Bhutan, May 3 – June 20 2017, http://www.nab.gov.bt/assets/uploads/docs/resolution/2017/9thSessionEng.pdf

0.38. Targeted interventions to address needs of vulnerable groups are underway. The economy grew at 7.5 per cent over the last few decades accompanied by structural changes, and unemployment has remained low at 2.1 per cent. Significant progress has been made on education and health outcomes as a result of access to free health and education. Today school enrolment is near 100 per cent with gender parity at secondary level, youth literacy stands at 93 per cent, and life expectancy has reached 68 years. On environment front, with over 70 per cent of forest cover and 50 per cent of the country under protected areas, Bhutan is a carbon neutral nation.

As Bhutan embarks on the 12th Five Year Plan (FYP) marking its first major step towards the journey of 2030 Agenda for Sustainable Development, Bhutan has critical last mile challenges to be addressed particularly in improving key social outcomes, economic resilience, human capital development, managing impacts of climate change, and strengthening partnerships.

Economic vulnerability, stemming partly from slow progress of change in the production structure and export base of the national economy, is an obstacle to the developmental trajectory. Bhutan faces significant challenges in diversifying its economic base mainly because of the inherent constraints associated with being landlocked and small population. The key economic question facing Bhutan over the medium-term is whether it will be able to move towards more diversified exports of value-added goods and service, with increased participation of vibrant small and medium enterprises. While efforts to tap hydropower will continue, Bhutan will expand investments in tourism, organic agriculture, and cottage and small industries. Initiatives will also be undertaken in establishing 'entrepreneurship ecosystem' to provide platform for innovation to generate green jobs, promote green economy through attraction of green investments, with participation of corporate and private sectors. Bhutan aims to keep unemployment under 2.5 per cent, increase share of national revenue from non-hydro sectors to over 75 per cent and attract approximately Nu. 10 billion (\$150 m) in FDI into non-hydro sectors in the 12th FYP period

As an enabler, completion of the ongoing infrastructure developments such as four industrial parks, expansion of national highways and construction of dry ports, and the effective implementation of EDP remains critical

Positive picture emerged on social conditions by the end of MDG era, particularly on poverty, health and education indicators. However, deeper issues remain behind statistical averages and aggregations in some social condition. While the progress on poverty reduction has been commendable, Bhutan is confronted with the last-mile challenge of eradicating poverty in all its forms, and addressing nutritional gaps marked by high prevalence of malnutrition with stunting rate for children below the age of five at 21 per cent, and 4.3 per cent wasting. Additionally, it is of paramount importance for Bhutan to ensure vulnerable section of the population do not fall back into poverty due to disaster or any other external shocks. The rise of non-communicable diseases (NCD), substance abuse and suicide/mental health problem among the youth are some of the increasingly growing concerns. On the other hand, Bhutan faces the challenge of meeting the increasing medical cost and sustainability of free health care. In education, the concerns about the quality of education still persists and differences in male to female ratio particularly in vocational and tertiary education remain. However, Bhutan's population today is increasingly urbanized, young, and educated with half the population below 28 years. Bhutan needs to take full advantage and tap this demographic dividends. While tremendous progress has been made in education with near 100 percent school enrollment, initiatives to improve learning outcomes, inculcate innovative and creative mindset, and enhance employability will be undertaken.

Bhutan has committed to remaining carbon neutral and the Nationally Determined Contribution in place. Bhutan has successfully implemented the National Adaptation Programme of Action tackling urgent climate needs, and National Adaptation Plan is under formulation. In additon, disaster management initiatives are underway at national and local levels to improve disaster preparedness and response.

However, diverse challenges confront the sector. Growing demands for water, energy, and food, in addition to climate change induced and other disasters which are increasing in frequency and intensity, exacerbate the already vulnerable ecology. Adverse impact of climate change is aggravating water problem and its quality is deteriorating in and around the urban areas. Air quality is deteriorating, particularly in urban centers, industrial area and along the southern border of the country. Waste management is also becoming a major emerging environmental issue for Bhutan. 30 per cent of Bhutan's economic activity is highly susceptible to impacts of climate change, and Bhutan is projected to experience increase in average temperatures that is three times the global average in the next 50 years. The road arteries that enable farmers' access to market and the importation of fuel, rice, and medicine are increasingly vulnerable to landslides with rising cost of recovery from post-monsoon infrastructure damage. The threat of hydro-meteorological and, geological disasters due to climate risks are increasing while technical and academic capacities to generate and use climate information is low with high data gaps. Awareness and behavioral change on the impact of climate change at the community level are also modest.

Keeping with the commitment of "carbon neutral" development, Bhutan has developed sectoral strategies on waste, transport, industry and the elaboration of GHG mitigation measures in three sectors of human settlement, industry and energy efficiency.

Bhutan needs investment to adapt to these changing situations. Climate change threat presents the single greatest risk of derailing decades of development gains achieved in Bhutan. There is a need to build national capacity to understand the climate change pathways more intricately among the sectors, build innovative capacity to develop local solutions and, above all, the investments required to deal with impacts of climate change and to remain carbon neutral are huge.

At the operational and implementation level, harmonization of policies; improving data and statistics management; improving awareness on SDGs and ownership; developing financing strategies and improving stakeholder coordination are some of the important measures that will play vital role in achieving the SDGs.

The Royal Government recognizes the significance of the role of partnership with multiple stakeholders including the international community, private sector, civil society and the local governments in achieving the 2030 Agenda for Sustainable Development. This includes promoting the roles of community, civil society, and the private sector in contributing to national sovereignty, prosperity and sustainability through development plans and policies. The 12th FYP highlights the importance of "Triple C" – Coordination, Consolidation and Cooperation.

The role of private sector and CSOs in socio-economic development is key to sustainable graduation. Bhutan also remains positively positioned in strengthening cooperation in areas of mutually beneficial technical and socio-economic cooperation with other development partners. Of particular significance to the future of our development will be to strengthen regional cooperation.

INTRODUCTION

Guided by the development philosophy of Gross National Happiness (GNH), Bhutan has made impressive development progress. The Committee for Development Policy found Bhutan eligible for graduation from LDC status for two consecutive triennial reviews in 2015 and 2018 fulfilling two criterion of per capita income and human assets, and based on consistent socio-economic development,. Bhutan is committed to graduating sustainably by 2023.

'Inclusiveness', as well as the policy of 'leaving no one behind' has been at the core of our development framework and will continue to form cornerstone of our future plans and strategies. Our success in implementing the MDGs, revealed through poverty, health and education indicators suggest that Bhutan performs relatively well in addressing the social aspects of development.

However, as a least developed and landlocked developing country, Bhutan faces severe geographic and structural impediments to development. While Bhutan fulfilled two of the criteria, namely GNI per capita and Human Asset Index (HAI), its Economic Vulnerability as evidenced by a high EVI is the most significant challenge. Within the economic sphere, instabilities in exports and agricultural production are found to be the greatest causes of concern. Climate change, natural disasters, land degradation, poor irrigation and human-wildlife conflict have contributed to the increased instability of agriculture sector. Limited export diversity and a high dependency on a single export market (India) also makes Bhutan vulnerable to external shocks. The significance and urgency of structural transformation and economic diversification was therefore underscored considering the challenges Bhutan is likely to face following LDC graduation. Hence, progress in the various dimensions of the EVI will require special efforts particularly in enhancing productive capacities and facilitating diversification.

With regard to localization of the SDGs, at the national level, there is a very high level of integration between the SDGs and our development philosophy of GNH. The three principles of SDGs closely resonate with GNH, a development paradigm that strives to balance the social, economic, environmental, good governance and cultural aspects of growth, where poverty alleviation, sustainable development and people-centered progress are paramount.

The 11th FYP (2013-2018) assessed 14 out of the 17 SDGs as being aligned and integrated with the achievement of the 16 National Key Result Areas. A rapid integrated assessment conducted by UNDP between the 11th FYP and the 169 targets of the SDGs also reveal a very high level of integration. Of the 169 targets, 143 targets were found to be relevant excluding targets related to Goal 14 on Oceans and Goal 17 on means of implementation. Of the 143 relevant targets, the assessment revealed 134 targets as already being integrated into the National Plan.

Bhutan has prioritized three goals in the medium term namely Goal 1: Ending poverty in all its forms everywhere, underscoring the continued importance RGoB places on poverty reduction and the shift beyond income poverty towards addressing issues of social protection and vulnerable groups, Goal 13: Take urgent action to combat climate change and its impacts, upholding Bhutan's commitment to the global community to remain carbon neutral at all times and Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Similarly, Bhutan has embarked on the formulation of the 12th FYP which will be implemented from July 2018-June 2023, and the nation is well positioned to further integrate the SDGs into our National Plan.

The report aims to inform the HLPF on Bhutan's position in harnessing the noble aspirations of SDGs at broad level. Specifically, the report delves into:

- Sharing experiences on adoption and integration of SDGs in national planning and policy framework;
- Illustrating the initiatives taken in implementation, monitoring, evaluation, and reporting of the SDGs;
- Highlighting opportunities as well as challenges that could impede implementation of the SDGs, and
- Sharing policy strategies and mechanisms to support implementation of the SDGs.

METHODOLOGY AND PROCESS FOR PREPARATION OF THE REPORT

Bhutan views the VNR as a process to engage and create ownership, rather than a report-making exercise. The report provides an overview of the progress made, policy reforms and initiatives undertaken and challenges faced in working towards the 17 SDGs.

This Report has been prepared following the "Voluntary Common Guidelines to support country reporting on the SDGs" presented in the annex of the UN Secretary General's report on critical milestones towards coherent, efficient and inclusive follow up and review at the global level. Three guiding documents, namely the Guidelines for Preparation of 12th FYP, Bhutan Living Standard Survey Report 2017, and the Prime Minister's State of the Nation Report (2016 & 2017) were extensively referred, in addition to other national and international reports.

In line with the principle of 'leaving no one behind', robust consultative process was followed in engaging with stakeholders of various sections of the society in reviewing the progress of SDGs. They include senior representatives of the government, private sector, CSOs, local governments, youth representatives, parliamentarians and political parties. Maximum care was taken to ensure incorporation of views and comments of all relevant stakeholders. The analysis in the pages that follow also benefit from the insight gathered in multiple SDG workshops that have been held in Bhutan since their signing in 2015.

In addition, Gross National Happiness Commission Secretariat (GNHCS) as the coordinating agency for planning, policy formulation and SDGs organized several rounds of meeting of the SDG Review Committee and the Task Force for VNR. The committees were consulted right from the inception of report preparation through the reviewing and endorsement of the draft. The committee comprise of representatives of agencies such as GNHCS, National Statistics Bureau (NSB), Cabinet Secretariat, Ministry of Finance (MoF), Ministry of Foreign Affairs (MFA), National Environment Commission (NEC), Ministry of Works and Human Settlement (MoWHS) and other representatives of relevant government agencies.

On data, the report classifies Bhutan's status in relation to each SDG according to the following classifications:

Classification of SDG Indicators

Fully Adopted: Indicator used in Bhutan completely matches with the SDG indicator.

Partially Adopted: Indicator used in Bhutan addresses the objective of the relevant target or aggregate indicator exists but not at disaggregated level.

Relevant but Not Adopted: SDG indicator is relevant to Bhutan but the indicator is not adopted/used at all.

Not Relevant: SDG indicator is not at all relevant to Bhutan's context.

Classification of Data Availability against SDG Indicators

Available: Data is available regularly with clear meta data, collection, analysis and dissemination process with clear assignment of data production responsibilities agencies.

Partially Available: Data is available only as ad-hoc publications but not as systematic regular publications of agencies with established process of data collection and dissemination frequency.

Not Available: Data is not at all available.

Progress towards each Goal is tracked using three broad criteria as stated below:

ACHIEVED

All relevant targets are achieved (may not be relevant in the current stage but for future purpose)

ON TRACK

Enabling policy and legal framework is put in place;

Resources are available;

Implementation of intervention(s) is underway;

Current progress is good and on a positive trajectory.

AT RISK

Enabling policies and legal framework not in place;

Absence of concrete implementation of intervention(s);

Resources not available;

Limited or no notable progress.

PART I: POLICY AND ENABLING ENVIRONMENT

The development process in Bhutan has a more meaningful purpose than economic growth alone. Our holistic goal is the maximization of GNH, the nation's principal guiding philosophy for its long-term development journey.

The SDGs find a natural and spontaneous place within the framework of GNH in Bhutan. They share a common vision of prosperity, where all people and the planet live in peace and harmony, where well-being is a primary measure of progress, and where no-one is left behind. Just as GNH is both an ideal to be pursued and a practical policy tool, so too the SDGs can both inspire and guide sustainable action by all sectors of society, as Bhutan works to deliver results against its commitments, at home and abroad.

The following are some significant measures that the Royal Government of Bhutan (the Government) undertook to foster ownership of the SDGs soon after their adoption in September 2015.

Incorporating the SDGs into Bhutan's GNH development framework

The social, economic, and environmental dimensions of sustainable development were integral elements of Bhutan's development framework well before the inception of Agenda 2030 and the SDGs, reflecting the deep interdependencies that exist between people's welfare, the nations' prosperity and protecting the planet in Bhutan. Nearly 60 per cent of the population relies on agriculture to make a living², while economic growth is highly dependent on hydropower fed by healthy Himalayan rivers. Bhutan's development philosophy of GNH, which consists of nine domains Figure xx is encompassing of these three dimensions as well as new elements captured by Agenda 2030 – including an increased focus on qualitative understanding and on the importance of good governance as an end in itself and a means to achieving all other domains or goals.

Figure 1.1: Nine Domains of Gross National Happiness

Psychological wellbeing: The domain attempts to understand how people experience the quality of their lives. It includes reflective cognitive evaluations such as life satisfaction; affective reactions to life events such as positive and negative emotions and spirituality.

Health: The domain comprises of conditions of the human body and mind and thereby attempts to characterize health by including both physical and mental states.

Time use: The domain attempts to analyze the nature of time spent on work, non-work and sleep, and highlights the importance of maintaining a harmonious work-life balance.

Education: Besides incorporating formal and informal education, the domain also tries to assess different types of knowledge, values and skills, which are mostly acquired informally.

Cultural diversity and resilience: The culture domain looks at the diversity and strength of cultural traditions including festivals, norms, and the creative arts.

Community vitality: The domain attempts to focus on the strengths and weaknesses of relationships and interaction within communities. The domain gathers information on social cohesion among family members and neighbours, and on practices like volunteering.

 $^{^{2}}$ Bhutan Living Standards Survey, 2017

Good Governance: The domain of good governance evaluates how people perceive various governmental functions in terms of their efficacy, honesty and quality. Indicators help to evaluate the level of participation in government decisions at the local level and the presence of various right and freedoms.

Ecological diversity and resilience: The domain encompasses indicators that measure people's perceptions and evaluations of the environmental conditions of their neighborhood and assess ecofriendly behavior pattern. It also covers hazards such as forest fires and earthquakes.

Living standards: This domain refers to the level of material comfort as measured by income, conditions of financial security, housing and asset ownership.

Guided by these nine domains, public policy formulation goes through rigorous social, economic, environmental and cultural impact assessment to minimize or mitigate any adverse effects of proposed policies on Bhutan's sustainable development trajectory. All proposed policies in Bhutan are screened through a GNH Policy Screening tool *Figure XX*. Twenty-two variables are assessed to determine if the proposed policies align with sustainable development. If they do not meet the threshold – with 66 out of 88 points as the pass mark -- they are sent back to the drawing board. Given the correlation between GNH and the SDGs, this screening mechanism effectively ensures the formulation of policies that will enable the achievement of the SDGs.

Figure 1.2: Equity is one of the 22 variables of GNH Policy Screening Tool				
1. Equity	Will negatively impact the equity of income distribution	Do not know the differential effects on equity of income distribution	Will not have any negative effects on the equity of income distribution	Will positively impact equity of income distribution
Score	1	2	3	4
Score Awarded	(Enter Score Here)			
Rationale for awarding score				
Suggested alternative/mitigation measure if score is 2 or below				

Bhutan plans against a five-year horizon, with subsequent Five Year Plans providing the framework to prioritize development actions and direct domestic and international investment. These plans are guided by Bhutan's Vision 2020, which will be renewed in the coming years against a longer time horizon.

Currently, Bhutan is completing implementation of its 11th FYP. In 2015, a Rapid Integrated Assessment of the Plan illustrated that of 143 relevant SDG targets, 134 were aligned with the indicators of the 11th FYP. While all the 17 SDGs were considered important from the outset, Bhutan prioritized three SDGs (Goal 1 – No Poverty; Goal 13- Climate Action; and Goal 15 – Life on Land) for immediate implementation in the 11th FYP. This was done on the basis of: the urgency of people's needs in Bhutan (No Poverty); Bhutan's commitment to the global community to remain carbon neutral for all times (Climate Action); and the desire to be a global champion of biodiversity, and support other countries in the pursuit of the same (Life on Land).

Under this plan, Bhutan saw great progress in reducing multidimensional poverty from 12.7 to 5.2 per cent, improving access to water and sanitation to 99 and 66 per cents respectively, clean energy with 99.9 per cent of households electrified, and near 100 per cent school enrolment with gender parity in secondary level which are further elaborated under each Goal in the pages that follow.

Looking ahead, the 12th FYP will focus on "consolidation, coordination and collaboration" to solidify such results and ensure a strong basis for the continued pursuit of GNH and the SDGs. With "a Just, Harmonious and Sustainable Society with enhanced Decentralization" as the overarching goal, the

Plan's 16 National Key Result Areas (NKRAs) and Key Performance Indicators (KPIs) are strongly aligned to the 17 SDGs. As the 12th FYP programs are currently under formulation at agency and local government levels, there will be further integration of the SDGs into the Agency and Local Government Key Result Areas.

Efforts are also underway between the GNHCs -- the apex body for national socio-economic planning and coordination -- and the National Statistics Bureau (NSB) to incorporate relevant SDG indicators into the National Statistical System. A data ecosystem review carried out in 2016 and 2017 established immediate needs of Bhutan's statistical system to meet the data expectations of the SDGs. As elaborated under Goal 17 below, raising the quality, frequency, disaggregation, utility and analysis of critical data in Bhutan requires investment in human resource capacity, institutional arrangements, and an enabling legal and policy environment.

Raising SDG awareness and ownership

Recognizing the importance of ensuring participation and inclusiveness in aligning the national goals to SDGs, the Government carried out a series of sensitization and awareness programs spanning over two years. Notably, a national sensitization workshop was carried out on 30th October 2015 soon after the adoption of the SDGs.

In addition, extensive SDG sensitizations were also carried out during formulation of the 12th FYP. Apart from all the government agencies, the Government consulted Civil Society Organizations, private sector entities, parliamentarians, political parties, local governments, youth representatives, and citizens. During these consultations, sensitization on the genesis of the SDGs development aspirations with the three normative core principles of (1) universality, (2) indivisibility, and (3) "leaving no one behind" was shared. A SDGs communications strategy was also developed to create further awareness and ownership of SDGs.

Institutional Mechanisms

The Government, created committees at different levels to provide dedicated executive guidance and administrative support to SDG implementation. Their mandates and membership are elaborated here.

Gross National Happiness (GNH) Commission as a High Level SDG Committee

In view of the indivisibility of GNH and the SDGs, a separate institution was not found to be necessary to drive the SDGs in Bhutan. The 15-member GNH Commission, chaired by the Prime Minister, assumes the responsibility of overseeing SDG-related matters at the highest level. The Commission consists of the Finance Minister as the Vice-Chair, the Secretaries of each of Bhutan's ten ministries, the Cabinet Secretary, the Secretary to the NEC, and the Secretary to the GNHCS. The Commission meets every quarter.

GNHC Secretariat as Lead Coordination Agency

To support the GNHC in this work, the GNHCS is entrusted with the responsibility to coordinate, advise, monitor, evaluate and report progress on the implementation of the SDGs in Bhutan. Its mandate is to operationalize the principles of GNH into development plans, programs and policies, including evaluating new policies through the GNH screening tool referenced above. The GNHCS formulates and evaluates long and medium term national plans, policies and programs; liaises with bilateral and multilateral development partners for external resource mobilization, and allocates resources to priority programs at central and local government levels. It also monitors and troubleshoots implementation issues and advises the government on matters related to public policies and social welfare. The GNHCS Secretary reports to the Prime Minister and the Commission.

SDG Working Committee

Within the GNHCS, in order to ensure smooth implementation and seamless coordination, a dedicated SDG Working Committee was established. The committee is led by the Director of GNHCS with the mandate to oversee, facilitate and guide integration, implementation and report progress status. The

committee meets every quarter and reports to the Secretary of GNHCS and will continue to assume any responsibility that transpires in the future on matters related to SDGs.

VNR Task Force

Bhutan volunteered to present the Voluntary National Review (VNR) Report during the High Level Political Forum in July, 2018. A multi-sectoral task force was formed, comprising of senior government officials from the Cabinet Secretariat, the National Statistics Bureau, and from sectors relevant to the 2018 HLPF thematic SDGs. The task force is primarily mandated to facilitate and coordinate in development of the National SDG Report in preparation for the VNR.

Parliamentary oversight

In addition to the institutional mechanisms of the Executive Government, Bhutan has invested in additional checks and balances to help ensure SDG results are achieved. "The SDGs are not just the future but our present, and our role is to oversee their implementation," said the Honourable Speaker of Bhutan's National Assembly during a May 2016 SDG sensitization session with Members, illustrating the commitment of Parliament to support SDG implementation in Bhutan. In the 9th session of Parliament in 2017, the National Assembly adopted a resolution to embed SDG oversight into Parliamentary practice, helping to "institutionalize Parliamentary efforts towards social equity, women's empowerment and good governance which formed the bedrock of democracy in Bhutan". The resolution a) approved the standing committee of the National Assembly to engage on SDGs b) allotted one day sitting during every parliamentary session for deliberation on SDGs c) affirmed Parliamentary oversight in ensuring the integration of SDG in the next five year plan d) determined to mobilize adequate resources for the National Assembly to facilitate the House's oversight role in relation to the SDGs, and e) institutionalized a requirement for all parliamentarians and parliamentary delegations visiting abroad on SDG-related trips to report to the plenary of the National Assembly on SDGs for better understanding of the House on SDGs.

³ Proceedings and Resolutions of the National Assembly of Bhutan, May 3 – June 20 2017, http://www.nab.gov.bt/assets/uploads/docs/resolution/2017/9thSessionEng.pdf

PART II: TRACKING THE PROGRESS OF GOALS

Given the early stage of SDG implementation and complexities associated with indicator adoption and data availability, it is not possible to assess the progress of each goal objectively through the use of targets and indicators. However, based on the set of broad criteria set out in the methodology section, the goals were assessed on its implementation progress.

Figure xx provides a summary of the progress status of each SDGs and briefly highlights key opportunities and challenges. Supporting details are provided in the subsequent sections of the report, including the statistical annexure (Annex xx).

Figure 2.1: Summary of SDG progress (By Goals)

Goals	Progress Status	Rationale
No Poverty	On Track	 National Income Poverty Rate reduced to 8.2 per cent in 2017 from 23.2 per cent in 2007 Multidimensional poverty of 5.8per cent, down from 12.7 per cent in 2012⁴ Effective targeted interventions by Government and CSOs (Rural Economy Advancement Programme, Targeted Household Poverty Programme, National Rehabilitation Programme) in addition to regular broad-based development programs Land reform programme underway since 2007 High coverage of free basic health and education services High coverage of communication services
		 Poverty levels in rural areas are significantly higher 93 per cent of the country's multi dimensionally poor are rural Climate change, human wildlife conflict, biodiversity loss further threatening rural poor – amongst the 60 per cent of Bhutan's population whose lives depend on agriculture Rural-urban inequality is increasing, and urbanization is giving rise to new vulnerabilities As per the GNH Survey, women farmers are 'least happy'

⁴ Multidimensional Poverty Index (MPI) 2017

Zero Hunger	On Track	 Food Security & Nutrition Policy adopted and under implementation High level of food sufficiency (more than 97 per cent) Variety of interventions initiated to improve nutrition (e.g. Sector Adaptation Plan of Action on Nutrition, 3 eggs per child per week programme in schools) However: High prevalence of malnutrition with stunting rate for children below the age of five at 21 per cent, and 4.3 per cent wasting
		 Low agriculture productivity Feminization of agriculture Climate change impacts damage essential agricultural infrastructure and limit access to market and scalability
Good Health and Wellbeing	On Track	 Unprecedented decrease in mortality and morbidity with life expectancy up from 37 years in 1960 to over 69.55 years in 2014 Access to free basic health care services. National Health Policy 2011 under implementation. Goiter, polio and measles eliminated, and deaths from tuberculosis and malaria greatly reduced. Childhood stunting reduced from 33.5 in 2010 to 21.2 per cent in 2015 Bhutan Health Trust Fund created in 1998 to help ensure availability of vaccines and essential drugs Achieved MDG 4 and 5
		However: Increasing cases of NCDs HIV case detection has increased Under-5 stunting still affects 1 in 5 children Increasing incidences of suicide, substance abuse and other mental health issues Rising cost of healthcare, with concerns around sustainability
Quality Education	On Track	 Access to free basic education. Net primary enrollment rate is 98.8 per cent Gender parity achieved up to higher secondary level

⁵ Annual Health Bulletin 2017, Ministry of Health

		 95 per cent of primary-school going children stay in school until the last grade. However: Quality of education including vocational education is a concern Gender parity at the tertiary level not achieved, though it is improving gradually 3-5 year old preschool enrollment is increasing but low at 18 per cent⁶
Gender Equality	On Track	 National Commission for Women & Children established Gender equality drafted. Nationwide analysis of violence against women underway Six months maternity leave introduced in the public sector However: Female unemployment rate is higher at 2.3 compared to male at 2 per cent, and women's participation in the workforce is dropping⁷ Only eight per cent of Bhutan's Parliamentarians⁸ are women – down from 13 per cent in 2008⁹Low female representation in executive positions in the civil service, corporate and private sector. Gender gap remains in tertiary and vocational education Feminization of agriculture in rural areas.
Clean Water and Sanitation	On Track	 99.5 per cent of people have access improved water sources (2017)¹⁰ About 63 per cent of households have 24 hours access to drinking water. The Water Act of Bhutan 2011 implementation underway. Integrated Water Resource Management Plan initiated National Adaptation Plan under development with strong focus on water access and quality National Sanitation and Hygiene Policy developed

 $^{^6}$ UNICEF, ECCD Investment Case 2017 7 Bhutan Labour Force Survey Report, 2015

 $^{^9}$ National Assembly Strategic Plan 2019-2023, UNDP, 2018 10 MICS 2010/NHS 2012/NNS 2015/BLSS 2017

		However: Increasing pressure due to climate change and population growth, especially in urban areas Drying of water sources is a concern Shortage of water for drinking and agricultural development Inadequate water and sanitation infrastructure and services
Affordable and Clean Energy	On Track	 99.9 per cent of people have access to electricity Bhutan Sustainable Hydropower Development Policy 2008, and Alternative Renewable Energy Policy 2013 implementation underway Energy Efficiency & Conservation Policy in place, and Domestic Feed-in Tariff under formulation Provision of 100 units of electricity per month free to rural households However, Lack of public-private partnerships in renewable energy (solar and wind) financing 72 per cent of total energy mix is from biomass, coal, and petroleum products Limited institutional capacity or incentives to implement other forms of renewable energy besides hydropower Dry winter periods see drop in hydropower production, necessitating the cross- border importation of electricity to cover domestic needs.
Decent Work and Economic Growth	On Track	 High economic growth, 6.4 per cent in 2016¹¹ Priority sector lending scheme to enhance access to finance for CSMIs Economic Development Policy 2016 implementation underway However: Limited diversification, technological innovation and entrepreneurship Growing youth unemployment, with the number of unemployed youth in cities rising from 13.5 per cent in 2012 to 23 per cent in 2016¹² Agriculture sector not attractive to youth due to associated hardships

Asian Development Bank, 2017Labour Force Survey Report, Bhutan, 2016

Industry, Innovation and Infrastructure	On Track	 Economic Development Policy 2016 implementation underway. Efforts to improve access to finance underway with Priority Sector Lending scheme FDI policy 2015 in place to attract investors¹³ Ease of doing business ranking improved from 124 in 2008 to 75 in 2017 out of 190 countries¹⁴ Low emission development strategy of industries in place National construction industry policy under formulation Guideline for differently abled friendly construction in place However: Low share of manufacturing value added goods and services.
		 FDI net inflow only 0.4 per cent of GDP in 2015 Poor quality of infrastructure, including vulnerability to climate change impacts and disaster Limited research and development
Reduced Inequalities	On Track	 Equity and redistributive principles embedded in legislations and policy Measures underway to narrow gap between rich and poor Vulnerability Baseline Assessment conducted identifying 14 vulnerable groups¹⁵ Disability and gender equality policies drafted
		However: Increasing Gini Coefficient from 0.36 in 2012 to 0.38 in 2017 Significant gaps in disaggregated data necessary for improved targeting
Sustainable Cities and Communities	On Track	 Constitution mandates the preservation and promotion of Bhutan's unique culture Bhutan's Nationally Determined Contribution on climate change commits to a carbon neutral nation for all time

¹³ Kuensel Newspaper, 8 January 2015, http://www.kuenselonline.com/fdi-policy-relaxed-to-attract-investors

¹⁴ World Bank, Ease of Doing Business Report, 2018, and Trading Economics, https://tradingeconomics.com/bhutan/ease-of-doing-business

 ¹⁵ Elderly in need of support; Orphans; Persons with Disabilities; Out of School Children; Unemployed youth; Children in conflict with the law; Victims of domestic violence; Those working in vulnerable workplaces like 'Drayangs'; Single parents and their children; People living with HIV/AIDS; Individuals engaging in risky sexual behavior; Persons using drugs and alcohol; People who Beg; and Vulnerable urban dwellers particularly living in slums in/near urban centers.

		 Disaster Management Strategic Policy Framework 2015-2025 under implementation National Human Settlement Policy developed However: Air pollution on the rise with tripling of vehicle numbers since 2005¹⁶ Affordable housing particularly in urban areas and district headquarters is a concern Limited public transport facilities Water scarcity and quality an increasing concern challenge Inadequate disabled friendly infrastructure and public spaces Poor waste management practices
Responsible Consumption and Production	On Track	 Sustainable Consumption & Production Action Plan initiated Paperless guideline developed and initiatives under implementation Sustainable tourism practices in place such as green hotel guideline developed SCP incorporated in secondary schools, vocational institutes and non-formal education curriculum. However: Emissions from waste increased by 247.45 per cent between 2013 and 2016¹⁷ No policy or legal framework on Sustainable Consumption and Production in place
Climate Action	On Track	 Political commitment to remain carbon neutral Nationally Determined Contribution in place Successful implementation of the National Adaptation Programme of Action tackling urgent climate needs National Adaptation Plan under formulation Disaster management initiatives underway at national and local levels However: 30 percent of Bhutan's economic activity is highly susceptible to impacts of climate change

¹⁶ Sustainable Low-emission Urban Transport Systems, Project Proposal, UNDP 2017
17 www.nec.gov.bt/nec1/wp-content/uploads/2016/07/Bhutan-State-of-Environment-Report-2016.pdf)
17 Second National Communication to the UNFCCC, 2011, NEC, RGoB (http://www.nec.gov.bt/nec1/wp-content/uploads/2012/11/Bhutan-SNC-final-sm.pdf)

		 Cost of recovery from post-monsoon infrastructure damage is rising The road arteries that enable farmers' access to market and the importation of fuel, rice, and medicine are increasingly vulnerable to landslides The threat of hydro-meteorological and, geological disasters due to climate risks are increasing Technical and academic capacities to generate and use climate information is low, while data gaps and needs are high Limited awareness and behavioural change on the
Life Below Water	On Track	 impact of climate change at the community level. Policies and legislation for water management in place Studies on aquatic life underway
		However: • Increasing pollution is a concern
Life on Land	On Track	 70.46 per cent of the country under forest cover Constitutional commitment to maintaining at least 60 per cent forest cover for all time More than half of the country is protected in the form of national parks, wildlife sanctuaries and biological corridors Bhutan is home to a recorded 928 species of mammals and birds, 45 of which are globally threatened Bhutan is committed to achieving land degradation neutrality by 2030 through sustainable land management practices¹⁸ Access Benefit Sharing Policy (2015) under implementation Pharmaceutical and bio-prospecting resources are under sustainable exploration for cottage, small and medium enterprise
		 However: Annually, an average of 48 forest fires cause forest degradation and biodiversity loss Close to eight million cubic feet of wood is harvested each year to meet the growing needs of rural and commercial sector Limited capacity to practice sustainable farming cause pressure on biodiversity

 $^{^{18}\} http://www.kuenselonline.com/achieving-land-degradation-neutrality-collectively/$

		Loss of species to wildlife poaching
		Increasing human-wildlife conflict
		increasing numer whome connec
Peace Justice and Strong Institutions	On Track	 2018 marks Bhutan's first ten years of democracy Access to Justice for all is a National Key Result Area Government Performance Management System in place to improve quality of public service delivery and accountability Bhutan ranked 27th amongst 176 countries and territories in the Transparency International Corruption Perception Index 2016 New Justice Sector strategic plan in place However: The GNH survey records a decrease in people's perception of good governance between 2010 and 2015 Inadequate capacities of public institutions Systems and practices for collaboration across the Justice Sector are nascent Room for greater engagement of CSOs in service delivery
Partnerships for the Goals	At Risk	 Bhutan set to graduate from the list of Least Developed Country by the end of 12th FYP Sound governance and conservation policy and practice in place Strong relations with development partners and effective utilization of ODA including successfully implementing international green finance Innovative approaches to domestic financing solutions under development Innovative green financing mechanisms under implementation, such as Bhutan for Life (finance for permanence) Data ecosystem review completed with clear articulation of issues and challenges Population and housing census undertaken in 2017 However: Economic Vulnerability threshold for LDC graduation not yet met Foreign direct investment is low Limited capacity to harness benefits of science and technology Withdrawal of traditional development partners & decline in ODA

•	Limited economies of scale to support access to
	foreign markets
•	High cost of service delivery and market access due
	to mountainous terrain



Goal 1: End poverty in its all forms everywhere

'End poverty in its all forms everywhere' aims to eradicate extreme poverty defined as people living below \$1.25 a day.

Anchored on the development philosophy of GNH, the Royal Government has placed poverty reduction at the heart of development programs, implemented through the five-year plans. As of 2017, the percentage of people living below national poverty rate reduced to 8.2¹⁹ from 12 per cent in 2012. Multidimensional Poverty also fell from 12.7 to 5.8 per cent between 2012 and 2017²⁰. This progress points to the Government's clear strategic direction over time: poverty reduction was the overarching objectives of the 10th FYP (2008-2013)²¹ and the 11th FYP (2013-2018).

To realize this objective, a detailed mapping of disaggregated poverty situations at *Gewog* level was conducted in 2010²² to locate poverty incidence by area and households. A Resource Allocation Formula (RAF) was introduced during the 10th FYP and continued with some modification in the 11th FYP, where poverty (multidimensional and transport cost index) were counted as important RAF criteria²³. Additional measures to root out extreme poverty include the implementation of Rural Economy Advancement Program (REAP)²⁴ and Targeted Household Poverty Program (THPP) in 2014²⁵.

Figure 2.2: Resource Allocation Formula

Criteria	10 th Plan Allocation %	11 th Plan Allocation %
Population	70%	35%
Poverty	25%	-
Geographical Area	5%	10%
Multidimensional Poverty	-	45%
Index (MPI)		
Transport Cost Index (TCI)	-	10%

Source: Fiscal Decentralization in Bhutan, RGoB and UNDP, 2017

1

¹⁹ Bhutan Poverty Analysis Report, 2017, National Statistics Bureau, Royal Government of Bhutan (http://www.nsb.gov.bt/publication/files/2017 PAR Report.pdf)

²⁰ Bhutan Multidimensional Poverty Index 2017, National Statistics Bureau, Royal Government of Bhutan & Oxford Poverty and Human Development Initiatives, University of Oxford (http://www.nsb.gov.bt/publication/files/pub0mu6061yd.pdf)

²¹ Tenth Five Year Plan 2008-2013, Volume 1: Main Document, Gross National Happiness Commission, Royal Government of Bhutan (http://www.gnhc.gov.bt/en/wp-content/uploads/2017/05/TenthPlan Vol1 cover.pdf)

²² Small Area Estimation of Poverty in Rural Bhutan, National Statistics Bureau, 2010

²³ Fiscal Decentralization in Bhutan, 2017, Department of Local Governance, Ministry of Home and Cultural Affairs, Royal Government of Bhutan

²⁴ Strategic Framework for Rural Economy Advancement Program (REAP), 2014, Research and Evaluation Division, Gross National Happiness Commission, Royal Government of Bhutan (http://www.gnhc.gov.bt/en/wp-content/uploads/2017/05/Strategic-Framework-For-REAP-FINAL-1December-2014.pdf)

²⁵ Targeted Household Poverty Program, Baseline Survey and Development of Targeted Poverty Interventions for the Poorest Household/Individuals in Bhutan, 2014, Research and Evaluation Division, Gross National Happiness Commission, Royal Government of Bhutan (http://www.gnhc.gov.bt/en/wp-content/uploads/2017/05/THPP-Web-Documents.pdf)

In the 11th FYP, around 26²⁶ per cent of the total resources were also allocated to social sectors including agriculture, health, and education which resulted in remarkable improvement in the lives of the people including life expectancy, mortality rates, literacy rate, and food security. The Government implemented a collateral free micro-lending scheme at 4 per cent for non-formal economic activities in rural areas through Bhutan Development Bank Ltd. and Rural Enterprise Development Corporation Ltd²⁷. At the same time, the extensive coverage of basic services such as access to improved drinking water (99.5 per cent), improved sanitation facility (92 per cent) and electricity (99 per cent)²⁸ contributed to poverty reduction.

To eliminate larger disparity in the society, His Majesty the King initiated a land reform exercise in 2007 reflecting that "the important feeling of attachment and belief in the future of the country, will come about if the people have effective and secure ownership to land,"29 while "the objective of the land $Kidu^{30}$ is to place the much-treasured land upon the hands of our people, and enable them to use it to better their lives and secure the future of their children."31 To date, 123,265 beneficiaries have been granted a total of 133,287.765 acres of land tenure-ship and rights.³² 71 per cent of households in the country now own land tenure-ship and rights.³³

Looking towards LDC graduation, Bhutan is confronted with 'last-mile' challenges of eradicating poverty in all its forms. The Gini co-efficient has increased from 0.36 in 2012 to 0.38 in 2017³⁴, indicating inequality is rising and it is higher in rural areas. While multidimensional poverty has reduced significantly rural poverty is much higher than urban poverty: 8.1 per cent compared to 1.2 per cent and children between 0-9 years of age are found to be poorest age group in Bhutan (see Box 1.1).

Box 1.1: Bhutan's Child Multidimensional Poverty Index

The effort to end poverty begins with children. Children who grow up in poverty are not only deprived of access to basic health, education, and protection services—they are also more likely to grow up as poor adults due to their diminished capabilities from deprivation and inequity. To break this intergenerational poverty cycle that many societies continue to struggle with, a child-focused approach to eradicating poverty is an absolute necessity. Such an approach could also help address SDG 10, which focuses on reducing inequity.

Fortunately, Bhutan is a step ahead in this regard compared to most nations, as the first country in the world to develop a Child Multidimensional Poverty Index (C-MPI). The CMPI based on the BMIS 2010, estimates a Child MPI Rate of 33.4 per cent. The Multidimensional Poverty (MPI) Report 2017 found that while the overall MPI had reduced to 5.8 per cent from 12.7 per cent in 2012, the MPI for children younger than nine years was highest at 7.1 per cent.

In addressing child poverty, His Majesty's district-level kidu services across all 20 Districtss provides support to vulnerable people including children. A designated Kidu Officer in each of the 20 Dzongkhags identifies vulnerable children who are then provided financial and education support.¹

Such interventions are critical, because notwithstanding Bhutan's exceptional progress against poverty, a recent UNICEF report on the SDGs and children in Bhutan identifies poverty as the most significant form of structural violence against children – with many at high risk of being left behind.

³⁰ Kidu loosely defined as "benefits" that can be excercised only by His Majesty the King as part of the Royal Prerogatives.

²⁶ Eleventh Five Year Plab Volume 1: Main Document, 2013-2018 "Self reliance and Inclusive Green Socio-Economic Development", Gross National Happiness Commission, Royal Government of Bhutan (http://www.gnhc.gov.bt/en/wpcontent/uploads/2017/05/Eleventh-Five-Year-Plan.pdf)
27 http://www.kuenselonline.com/boic-closes-shop-redcl-launched/ http://www.redcl.gov.bt/

²⁸ Bhutan Living Standards Survey Report 2017, National Statistics Bureau of Bhutan, Royal Government of Bhutan

²⁹ His Majesty the King, September 24, 2007

³¹ His Majesty the King, December, 2016, Trongsa (http://www.bbs.bt/news/?p=64599)

³² http://www.kuenselonline.com/his-majesty-grants-land-kidu-to-11118-beneficiaries/

³³ Bhutan Living Standards Survey Report 2017, National Statistics Bureau of Bhutan, Royal Government of Bhutan

³⁴ Bhutan Poverty Analysis Report, 2017, National Statistics Bureau of Bhutan, Royal Government of Bhutan

Future progress in eradicating poverty -and preventing people from falling back into poverty – will also depend on how successfully Bhutan manages the relationship between its people and the environment. Climate-related disasters have increased in number and magnitude, reversing the gains of farming communities.³⁵ The road arteries that enable farmers' access to market and the import of fuel, rice, and medicine are increasingly vulnerable to landslides.

In cities, though incidences of poverty are significantly less³⁶, urbanization has given rise to a number of vulnerabilities which could hinder efforts to eradicate poverty by 2030 if not addressed. For example, an estimated 10 per cent³⁷ of Thimphu city's population live in informal settlements characterized by lack of access to basic amenities. Further analysis of impact of urbanization on poverty in Bhutan is needed to better understand opportunities and risks.³⁸

Looking ahead, consideration must therefore be given to address geographical disparities, bridging the poverty gap through increasingly targeted interventions – bringing last mile services to the poorest section of society in rural and urban areas and to vulnerable groups, with special attention to accelerate the reduction of child poverty, and to mitigating and adapting to the impacts of climate change. Further disaggregated data will be critical for enhanced targeting. The 12th FYP is geared towards delivering these last-mile development results by enhancing implementation efficiency through Co-ordination, Consolidation and Collaboration,³⁹ centered around the objective of "Just, Harmonious and Sustainable Society through Enhanced Decentralization".

³⁵ Climate Change Vulnerability Assessment and Adaptation Planning Report, UNDP, 2017

³⁶ World Bank, 2017

³⁷ Vulnerability Baseline Assessment for Bhutan, Gross National Happiness Commission, UNDP, 2017

³⁸ Independent Evaluation Office, 2017.

³⁹12th FYP, Gross National Happiness Commission, Royal Government of Bhutan (http://www.gnhc.gov.bt/en/wp-content/uploads/2017/05/Finalized-Guideline.pdf)

Box 1.2: Targeted poverty reduction program - The Rural Economy Advancement Program (REAP)

Rural Economy Advancement Program (REAP), a targeted poverty alleviation program, was initiated in the 10th FYP in 14 poorest villages covering 10 Dzongkhags.

The core objectives of the program are:

- To reduce extreme poverty by targeting the poorest communities & enhancing productive capacities to secure sustainable livelihoods
- To provide sustainable livelihood to the extreme poor, especially in the areas of standard of living, health, education, community vitality, financial and food security;
- To promote community participation, especially the poor, in planning and implementation of their own development plans.

Broad activities under the program include income generating activities, improvement of housing, health and sanitation, skills development, human-wild life conflict management, land management and supply of farm machineries.

With the completion of REAP-I in 2012, a terminal evaluation⁴⁰ carried out in 2013 showed that the program was effective and efficient in reducing extreme poverty in the targeted households and villages. One of the remarkable outcome was increase in the average monthly savings to Nu. 1300, which is above that of the national extreme poverty level (Nu.1155, PAR 2012).

The program was efficiently executed achieving all targets spending 89.3 per cent of the allocated resource. Based on the success of REAP-I, the program was extended with REAP II in the 11th FYP that covered 75 villages in 18 Dzongkhags with an increased resource outlay of Nu.150 Million. The REAP II program benefits about 1500 households and 8500 populations. The program was implemented by Gross National Happiness Commission Secretariat in partnership with Tarayana Foundation, a civil society organization.



⁴⁰ Rural Economy Advancement Program, Terminal Evaluation Report, 2014, GNH Commission

Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

This goal aims to ensure food security for all with satisfactory level of nutrition. It will also ensure promotion of sustainable food production systems and resilient agriculture practices, especially for the small farmers with enhanced investment in the sector.

Bhutan is largely an agrarian country and hence food security and self-sufficiency are both important. Agriculture is the major source of employment for Bhutanese with 56.6 per cent of the population dependent on the sector for their livelihood⁴¹. According to the latest survey, 97 per cent of the households in Bhutan are reported to be food sufficient⁴², with urban residents rarely experiencing food insufficiency. Approximately 4 per cent of people in rural areas report experiencing food insufficiency.

However, the high percentage of food sufficiency is on account of Bhutan's import-dependency. Much of Bhutan's food requirements, such as cereals, vegetables, meat items and other essentials commodities, are imported. The importation of rice alone amounted to Nu. 1.536 billion (approximately USD 24 million) in 2016⁴³. According to the assessment conducted by the Department of Agriculture and Department of Livestock, the self-sufficiency ratio for rice – Bhutan's staple cereal -- is only 45 per cent. Households in rural areas still experience seasonal food shortages, peaking during the months of May to August, during which times they adapt to coping mechanisms such as off-farm activities, daily wage labouring, borrowing from family and neighbors, and depending on cash remittances⁴⁵.

Labour shortages and the seasonal feminization of agriculture, crop damages by the wild animals, inadequate irrigation water, seasonal drought, hail and windstorms, landslides, a shortage of agriculture land, and limited access to markets are some of the factors limiting agriculture productivity and hence production⁴⁶. Climate change impacts and other disasters intensify the agricultural challenges. The location of farmland on slopes makes agriculture practices inherently difficult and unsustainable. For instance, 31 per cent of agriculture land is situated on slopes of more than 50 per cent gradient⁴⁷, resulting in a high rate of soil erosion.⁴⁸ Largely, agriculture in Bhutan is small holder subsistence farming, operated by family members with an average landholding of 1.2 ha.⁴⁹

Child nutrition is a significant health concern, even though it has greatly improved. About 21 per cent of Bhutanese children below the age of five years are stunted, while 4.3 per cent are reported as wasted, and 9 per cent as underweight⁵⁰. Stunting rates are not equitably distributed, the eastern regions, rural areas, and children from lower wealth quintiles face higher rates of stunting. The status of micronutrient is also a concern, as despite the substantial reduction in anemia prevalence since 2003, 44 per cent of 6-59 month-old children, 35 per cent of the non-pregnant women, and 31 per cent of adolescent girls are anemic⁵¹, which is a severe public health concern.

31

⁴¹ BLSS 2017

⁴² Bhutan Living Standard Survey Report, 2017, National Statistics Bureau of Bhutan, Royal Government of Bhutan

⁴³ Bhutan Trade Statistics, 2016, Department of Revenue and Custom, Ministry of Finance, Royal Government of Bhutan

⁴⁴ National Dietary Energy Consumptions Status and Self Sufficiency Ratio, 2015, working document, Department of Agriculture and Department of Livestock, Ministry of Agriculture an Forest.

⁴⁵ Agriculture Statistics, 2016, Department of Agriculture, Ministry of Agriculture & Forest, Royal Government Bhutan.

⁴⁶ Agriculture Statistics, 2016, Department of Agriculture, Ministry of Agriculture & Forest, Royal Government Bhutan.

⁴⁷ National Action Program to Combat Land Degradation, 2014, National Soil Service Centre, Department of Agriculture, Ministry of Agriculture and Forest, Royal Government of Bhutan

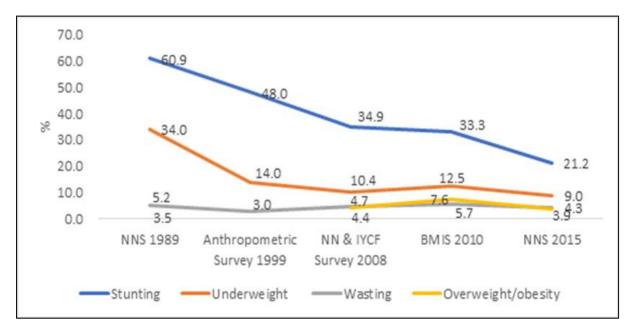
⁴⁸ Measurement and analysis of soil erosion plot data, 2009, National Soil Service Centre, Department of Agriculture, Ministry of Agriculture and Forest, Royal Government of Bhutan

⁴⁹ Katwal, T.B, Multiple Cropping in Bhutanese Agriculture – Present Status and Opportunities, http://www.nbc.gov.bt/wp-content/uploads/2010/06/Multiple-Cropping-Paper-Bhutan-for-SAC-1.pdf

⁵⁰ Bhutan National Nutrition Survey, 2015

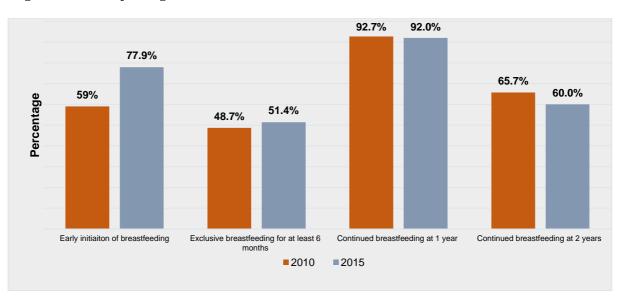
⁵¹ Ibid

Figure 2.3: Time trends of stunting, underweight, wasting, and overweight/obesity among Bhutanese children aged 0 to 59 months from 1986/88 to 2015 52



Source: NNS 1986/1988, National Nutrition Survey Bhutan 1986/88; NNS Bhutan 1999, National Nutrition Survey Bhutan 1999; NNS Bhutan 2008, National Nutrition Survey Bhutan 2008; BMIS 2010, Bhutan Multiple Indicator Survey (BMIS) 2010; NNS Bhutan 2015, National Nutrition Survey Bhutan 2015

Figure 2.4: Breastfeeding Practices in 2010 and 2015



Source: BMIS 2010 and NNS 2015

Early initiation of breastfeeding showed nearly a 20 per cent increase in practice from 2010 to 2015 (59 percent to 77.9 percent). However, there is only a slight increase in exclusive breastfeeding practices from 2010 to 2015. 51 per cent of children in Bhutan were exclusively breastfed in 2015 compared to 48.7 percent in 2010. It is possible that more recent data on breastfeeding practices will show more improvements. This is because since 2016, the RGoB increased maternity leave from three months to

⁵² Overweight/obesity data were not available in NNS 1999

six months.⁵³ In 2018, all State-owned enterprises are also required to implement the six-month maternity leave extension.⁵⁴ Therefore, more recent data on breastfeeding practices could shed more light on current deficiencies and help identify areas for targeted interventions.

A *Performance Audit Report on School Feeding Programmes* (2017) found major systemic and implementation gaps in ensuring nutritional needs of children in schools with feeding programmes.⁵⁵ The recent move to establish central schools (which implements school feeding programmes) across Bhutan has led to an urgent need for assessment of school feeding programmes to ensure the provision of necessary nutrition to all children in boarding and central schools. Therefore, there is an immediate need to include indicators that evaluate school feeding programmes as well as the nutrition status of children in schools to address potential issues.

Taking cognizance of these challenges, the Government has instituted various programs to enhance agriculture production for improved food and nutrition security. The Food and Nutrition Security Policy 2014, which recognizes the importance of multi-sector partnerships to achieve results, ⁵⁶ is designed to support a healthy, active population through better access to safe, adequate, and nutritious food. A series of programs are under implementation to accelerate the growth of the agriculture sector with a focus on drivers of change, including irrigation development, farm mechanization and addressing human-wildlife conflict management:

Irrigation Development: In the 11th FYP alone, about 680 kilometers of irrigation channels were renovated or constructed⁵⁷. Distinguishing water as critical input for agriculture development and transformation to commercial and semi-commercial, and also to adapt to climate change, a National Irrigation Master Plan a 15-year action plan developed in 2016⁵⁸.

Farm Mechanization: Agriculture mechanization is priority of the government to ease farm labour shortage. With the objective of providing farm mechanization goods and services to the farming communities at an affordable price, Farm Machinery Corporation Limited (FMCL) was incorporated as a State Owned Enterprise⁵⁹, providing farm machinery hiring services. In addition, the Government provided power tillers to 783 *Chiwog*⁶⁰.

Human Wildlife Conflict Management: 40 per cent of farming households are affected by human – wildlife conflict, and on average spend 47 number of days and 58 nights each year guarding crops from wild animals⁶¹. Electric fencing is considered a safe and acceptable intervention,⁶² with more than 2000 kilometers of fencing now in place benefiting close to 11,000 rural households⁶³.

60 The State of the Nation Report, June 2017

⁵³ Royal Civil Service Commission [RCSC] (n.d). Retrieved on 18 Dec. 2017 from: http://www.rcsc.gov.bt/en/extension-of-maternity-leave-and-baby-feeding-break/

⁵⁴ Kuensel (2017). *SOEs to implement six months maternity leave from 2018*. Kuensel. Retrieved on 24 Dec. 2017 from: http://www.kuenselonline.com/soes-to-implement-six-months-maternity-leave-from-2018/

⁵⁵ Royal Audit Authority (2017). Performance Audit Report on School Feeding Programme.

⁵⁶ http://www.gnhc.gov.bt/en/wp-content/uploads/2017/05/FNS Policy Bhutan Changed.pdf

⁵⁷ Department of Agriculture

⁵⁸ National Irrigation Master Plan, 2016, Department of Agriculture, Ministry of Agriculture and Forest, Royal Government of Bhutan

⁵⁹ http://www.fmcl.bt/

⁶¹ Agriculture Statistics, 2016, Department of Agriculture, Ministry of Agriculture and Forest, Royal Government of Bhutan ⁶² As a Buddhist country, the majority of rural farmers abstain from killing the wild animals, or consider it to be socially

⁶³ The State of the Nation Report, June 2017.

To ensure Bhutan's agriculture production system is sustainable and resilient to changing climate scenarios, the Government is pursuing various climate-smart agriculture options, including organic agriculture⁶⁴. To systematically address the problem of soil erosion and agriculture land degradation arising from unsustainable slope farming, the Government launched the Agriculture Land Development Guidelines (ALDG) in 2017⁶⁵. These set out the importance of sustainable land management for enhanced food production, and for Bhutan to remain committed to the carbon neutrality targets of the UNCCD.

Under the auspices of His Majesty the King, the National Land Commission Secretariat (NLCS) initiated the National Rehabilitation Program (NRP) to benefit rural farmers. Its aim is to alleviate poverty and food insecurity by allocating economically viable farming land on a freehold basis⁶⁶. Under the program, more than 6,536 landless households were allotted with 23,800.87 acres (3.6 per cent of total arable land) of farming land with inclusive resettlement package. The Use Right System (URS), an innovative landholding system, was also introduced recently to enhance economic livelihood opportunities. The URS allows beneficiaries to use state land as long as the land is being used productively for the purpose for which the land is allotted through payment of taxes at par with existing land tax.

'Many of our people continue to depend directly on land for their livelihood. In addition, land is traditionally considered a precious inheritance to be bestowed to our children. The objective of the Land Kidu is to place the much-treasured land upon the hands of our people, and enable them to use it to better their lives and secure the future of their children'.

His Majesty the King, 2016

To address the nutrient deficiency situation, the country has taken number of initiatives such as the issuance of The Food Based Dietary Guidelines, 2010, and the Bhutan Dietary Guideline for School Children 2015. To address high prevalence of nutritional deficiency in school, government initiated fortified rice feeding program⁶⁷ and consolidated School Agriculture Program to ensure school children get a minimum of three eggs per week⁶⁸ per child and supply of fresh vegetables. The Ministry of Agriculture and Forest is also committed to promoting quinoa production and consumption as an alternate food crop to address nutritional issues of the general population⁶⁹.

While the initiatives and achievements are laudable, the government recognizes the sector's vulnerabilities, particularly to climate change impacts and climate change induced disasters, which can undo the gains achieved thus far. The Sector Adaptation Plan of Action (SAPA), 2016⁷⁰ identifies forest & biodiversity, food security & agriculture and water resources as the most vulnerable sub-sectors from climate change impact.

The 12th FYP provides the required programmatic focus by identifying "water, food and nutrition" security as one of the National Key Result Areas (NKRAs). The investment required to adapt to climate change in these sub-sectors are huge for the government to meet the requirement.

67 WFP Bhutan, 2017

⁶⁴ CIAT; World Bank, 2017, Climate Smart Agriculture in Bhutan, CSA Country Profile for Asia Series, International Centre for Tropical Agriculture (CIAT); The World Bank, Washington, D.C, 26 p.

⁶⁵ Agriculture Land Development Guidelines, 2017, Department of Agriculture, Ministry of Agriculture and Forest, Royal Government of Bhutan (http://www.nssc.gov.bt/)

⁶⁶ http://www.nlcs.gov.bt/

⁶⁸ http://www.kuenselonline.com/sap-produces-record-eggs/

⁶⁹ http://www.kuenselonline.com/agriculture-ministry-will-promote-quinoa-production/

⁷⁰ The Renewable Natural Resources Sector Adaptation Plan of Action, 2016, RNR Climate Change Adaptation Program, Ministry of Agriculture and Forest, Royal Government of Bhutan

Box 2.1: The National Rehabilitation Programme Khenadang: This pro-poor resettlement program was initiated under the auspices of His Majesty the King.

The Rehabilitation Program was in initiated in 2009 by the Office of the *Gyalpoi Zimpon* (Royal Chamberlain). The program is in continuation to The Resettlement Program initiated in 1997 by His Majesty the Fourth *Druk Gyalpo*, under which land '*Kidu*' was granted to the landless, near landless and households' dependent on shifting cultivation (*Tseri/Pangzhing*).

Recognizing the linkages between land and poverty, main objective of the program is to reduce poverty through enhancement of sustainable rural livelihoods of the landless and socioeconomically disadvantaged/marginalized communities. The implementation of the program is being spearheaded and coordinated by the National Land Commission guided by the Rehabilitation Strategy Document formulated by NLCS. It outlines the overall framework, approach and procedures to effectively and efficiently implement the program in an equitable and transparent manner.

More than 6,536 landless households who are socio-economically disadvantaged have been benefited from the secured tenure rights with the allotment of 23,800 acres (3.6 per cent of total arable land) of farming land, mostly aided with inclusive resettlement package.

Khenadang in Pemagatshel District was the first village to transform under the program in 2013. The village has about 47 households with population of 311. Their lives transformed with registered ownership of 124 acres of agriculture land and free materials and grant of Nu. 50,000 (US\$ 1000) for each household to construct their houses. Life became much easier with access to electricity, water and mobile network.

Their transition to the new village was smooth with free basic food items for first six months. As a part of the program, a separate kitchen and a toilet were mandatory to maintain health and hygiene. Livelihood improved with backyard farming including vegetable garden, poultry and raising cattle as main sources of income. A vegetable group was formed to improve vegetable production primarily to enhance nutrition intake.

The annual mean household income has increased four-fold from Nu. 9,424 in the previous village to Nu.36,954 in the current village. Similarly, annual median income has increased significantly from Nu.3,500 in the previous village to Nu.33,800 in the current village. Access to micro-credit is provided from the Bhutan Development Bank Ltd.

There is a high level of social support from neighbours in times of need such as disaster, constructions, funerals and annual rituals.



While children goes to the newly constructed school around the corner of the village, medical needs are administered through a monthly visit of the Health Assistant from Yelchen Basic Health Unit. With a new community temple at the top, Khenadang has denatured into a beautiful, sustainable, happy, and a model village in one of the district with high incidence of poverty.



Goal 3: Ensure healthy lives and promote well-being for all at all ages.

This goal is about minimizing the impact of preventable diseases, untreated drug and alcohol abuse, preventable birth defects, and avoidable traffic and industrial accidents. It is also to ensure that every person, child or adult, gets the resources they need to live a long and healthy life.

Bhutan has made significant investments to develop its health system from a low base and achieved remarkable progress in key health outcomes over the past several decades. Bhutan's total health expenditure is at 3.8 per cent of GDP, which is predominantly government financed (approximately 75 per cent). Household out-of-pocket expenditure is relatively low (estimated at 25 per cent of the total health expenditure), implying fair level of equity and financial protection. Coverage of health facilities is also extensive with 94.8 per cent of the population living within 3 hours walk from the nearest health facility, which is commendable for a country challenged with difficult terrain and scattered remote populations. Mandated by the Constitution (Article 9, Section 21), the State has 'to provide free basic public health services in both traditional and modern medicines'. Consistent efforts and investment in healthcare have resulted in the increased life expectancy from 32.4 years in 1960 to 69.5 years in 2012⁷¹. Bhutan eliminated iodine deficiency in 2003, was declared polio free in 2014, and achieved measles elimination status in 2017.

The infant mortality rate decreased from 60.5 deaths per 1000 live births in 2000 to 30.0 in 2012⁷². The maternal mortality rate also significantly dropped from 255 deaths per 100,000 live births in 2000 to 86 in 2012. In order to improve the nutrition and care for newborns, the three-month maternity leave has been extended to six months.

Prevalence of HIV in Bhutan was estimated at 0.2 per cent among adults aged 15-45 years in 2012. In order to prevent and reduce the incidence of HIV, various methods have been adopted such as the revision of the HIV treatment guideline in 2016; hepatitis surveillance in 2017; provision of fixed-dose combination therapy; targeting zero mother-to-child transmission by introducing voluntary counseling and testing for HIV/hepatitis B/syphilis to all Antenatal Care (ANC) attendees, and monitoring of CD4 count and viral load. Also, extensive awareness and advocacy campaigns on the use of contraceptives have resulted in increased contraceptive prevalence rate from 30.7 per cent in 2000 to 65.6 per cent in 2012.

Bhutan has remarkably reduced the cases of malaria from 39,852 in 1994 to 34 in 2015, and aims to eliminate indigenous cases by 2018. The Bhutan One Health Strategic Plan 2017-21 and the WASH program are key priority programs that are being implemented to prevent and minimize/control of zoonotic and infectious diseases.

An emerging cause of concern is the increasing incidences of non-communicable diseases (NCD). Cardiovascular, respiratory and alcohol related diseases, cancer and diabetes have risen considerably causing 53 per cent of deaths in 2016. Among these, alcohol liver diseases is a major cause of death. To address these issues, the government adopted a five-year multi-sector national action plan for prevention and control of NCDs and the National Policy and Strategic Framework to Reduce Harmful Use of Alcohol in 2015.

-

⁷¹ Annual Health Bulletin, Ministry of Health, 2017

⁷² 2012 National Health Survey, Ministry of Health, 2014

Likewise, trends in mental health problem and suicide cases are on the rise. In order to address the rising trend of suicide cases, a National Suicide Prevention Action Plan is being implemented. Furthermore, Bhutan Mental Health Strategy and Action Plan (2015-2023) was also developed in 2015 with the aim to improve mental health and reduce suicides. To improve health and promote active and healthy lifestyles, outdoor gym equipment have been installed in urban areas across the country.

As per the 2012 National Health Survey, the percentage of population aged 15-75 who smoked tobacco was 4.0 per cent. Recognizing the harmful effects of tobacco consumption, Bhutan enacted Tobacco Control Act in 2010, and banned the sale of tobacco products and consumption in public places. This resonates with the concern for physical health and well-being which is a critical element of GNH philosophy.

The road traffic death was about 15 per 10,000 vehicles in 2010, well below the regional average of 18.5. There has been steady decline in the actual numbers of road traffic accidents over the years (1094 in 2013, 791 in 2014 and 715 in 2015). Such progress is result of strict enforcement of road safety regulations, awareness and other measures including introduction of zero tolerance day and regulating speed limits.

Bhutan's health care service to its citizens extends beyond the modern healthcare system. Traditional medicine system has long been practiced and continues to be an alternative source of healing for the Bhutanese. Access to traditional health facilities and services has been made available in all the 20 districts.

In 2015, the helicopter service was launched to enable search and rescue, medical and casualty evacuation during times of health emergencies.

According to the Annual Health Bulletin, the doctors' density per 10,000 population is 3.9 and nurses' density per 10,000 population is 15.4 in 2016. The ratio of beds per nurse is 1.1 in 2016.

Health Infrast
Hospital
Traditional M
(TM) hospital
TM Units
Basic Health
Basic Health
Satellite Clini
Subpost
Out Reach Cl

Figure 2.5 Health Infrastructures

Health Infrastructure	2015 Status	
Hospital	24+6	
Traditional Medicine (TM) hospital	1	
TM Units	54	
Basic Health Unit I	20	
Basic Health Unit II	186	
Satellite Clinics	3	
Subpost	28	
Out Reach Clinics	562	

In order to consolidate and harmonize health infrastructure and services the national health policy was adopted in 2011. Healthcare is one of the national key result areas in the 12th FYP.

To ensure sustainability of primary healthcare services in Bhutan, the Bhutan Health Trust Fund (BHTF) was established in 1998 through a Royal Charter. It is an endowment fund to generate sufficient return on investments to cover all annual expenditures on vaccines and essential medicines.

Despite these gains in key health outcomes, challenges remain, including regional disparities in health status and wide district-level variations in health outcomes and service coverage. For example, neonatal death is responsible for 55 percent of the under-five deaths in Bhutan. Across dzongkhags, wide disparities were found in the prevalence of both institutional delivery and skilled birth attendants highlighting the need for district-level interventions in these two areas. More investment is needed to strengthen pregnancy and delivery health service programmes for women residing in rural areas, and to collect data on child mortality related to non-communicable diseases as well as data on TB, Malaria, and HIV prevalence in children.

The sector also needs to evolve to effectively deal with growing health security threats and epidemiological and demographic transitions, including increasing burden of non-communicable diseases and rapid urbanization with increasing rural urban migration. Funding for health is declining not least due to the withdrawal of a number of external donors, as Bhutan's per capita income is rising and the country graduates from LDC status. External financing of health has dropped from around 28 per cent in 1996 to about 12 per cent in 2012 putting considerable strain on the health care financing. Towards this, long-term sustainability of health care financing is being reviewed. Further, the need for solutions to address the critical shortage of human resources is a further challenge for sustainably improving healthcare quality and access.

Box 3.1: Bhutan Health Trust Fund: An innovative sustainable healthcare financing

To ensure sustainability of primary healthcare services in Bhutan, the Bhutan Health Trust Fund (BHTF) was established in 1998 through a Royal Charter. It is an endowment fund to generate sufficient return on investments to cover all annual expenditures on vaccines and essential medicines.

The key objectives of the fund are:

- To help sustain primary health care through continued and uninterrupted supply of essential drugs and vaccines, needles, syringes, cold chain equipment and other related drugs/equipment,
- To help eliminate financing uncertainties for priority core components of the primary health care services out of the income generated from the investment of the fund,
- To help achieve self-reliance in the primary health care sector.

The fund currently stands at approximately USD 19.8 million (2017), realizing about 82.5 per cent of the target of USD 24 million.

Fund mobilisation is done through contributions from development partners, private and public organizations, financial institutions and individuals. Based on the principle of one-to-one partnership, any donor contribution to the fund is matched by the Royal Government on a one-to-one basis. 'Move for Health' is an engaging program initiated by the government for advocacy and raising fund from the general public. Since 2002, the program has mobilized about USD 2 million. The fund is sustained through investments in various portfolios to generate sufficient returns to meet all annual expenditure on essential drugs and vaccines.



Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning to all

Education plays a crucial role in accelerating economic growth through creating a productive national workforce and in advancing socio-economic development. The Royal Government accords high priority to education and has allocated no less than 10 percent of the total budget in all the FYPs.

Bhutan has made great strides in improving access to education and is close to achieving the goal of Universal Primary Education. As of 2017, the Adjusted Net Primary Enrolment Rate (ANER) is 98.8 per cent constituting 98.7 per cent boys and 98.9 per cent girls. Similarly, the Gross Enrolment Ratio (GER) for basic (Class PP-X) is 108.8 per cent and GER for secondary (Class VII-XII) is 95.7 per cent for the same year.

These successes have been made possible through consistent investment in the education sector over the years since the advent of modern education in 1960s. Strategic education-focused frameworks (e.g., *Bhutan Education Blueprint 2014-2024*) were developed to improve the quality of education. Recent efforts to improve access to early childhood programmes and the promotion of inclusive education also address equity issues related to SDG 4. However, the 2017 MPI report identifies deprivations in years of education as the most significant contributor to multidimensional poverty (32 percent). The quality of education in tandem with development of labor market dynamics has also come under scrutiny in recent times. Initiatives to improve quality of education and rationalize increasing costs, include innovative interventions such as establishment of Central Schools, Extended Classrooms and expansion of primary and secondary schools.

Recognizing early childhood care and development (ECCD) as the foundation for children's long term development, wellbeing and health, the Government prioritizes providing quality child care and early learning opportunities for children as part of the broader education continuum. Although the concept of ECCD is relatively new to Bhutan, progress has been commendable. The gross enrolment ratio in ECCD as of 2017 was 21.8 per cent against 7 per cent in 2013. Going forward, ECCD program will be a priority. The 12th FYP aims to enroll at least 50 per cent of children aged 3 to 5 years in ECCD Centres through establishment of one ECCD Centre for every *Chiwog*⁷³. However, the challenge will be to find sufficient resources and innovative and suitable alternatives to ensure that all children receive affordable and quality ECCD services.

⁷³ A group of villages.

7.0% 9.0% 18.6% 21.8% 21.8% 21.8% 2013 2014 2015 2016 2017 YEAR

Figure 2.6: ECCD Enrolment from 2013 to 2017

Source: AES 2013, 2014, 2015, 2016, 2017.

Ensuring continuity and access to affordable and quality technical, vocational and tertiary education is an important element of the overall education system framework in Bhutan. Currently, there are six TTIs, one institute for Tourism and Hospitality and 2 IZCs in the country with a total of 1536 trainees and 163 instructors. While efforts have been made to enhance access to and quality of TVET education, it remains an unpopular option for many students due to the low status and poor working conditions associated with blue-collar jobs.

To enhance quality and relevance of TVET education, a Technical and Vocational Education and Training (TVET) Blueprint that outlines reforms has been developed.

The Gross Enrolment Ratio (GER) Tertiary within and outside Bhutan for age 19-21 years as of 2017 stands at 35.8 per cent. As of 2017, there are 18 Tertiary Education Institutes (TEIs) offering undergraduate and postgraduate courses in healthcare, medical, law, language, management, natural resource, education, and technology in the country. In 2014, the Government instituted Students Loan Scheme for Tertiary Education to provide opportunities for students from economically disadvantaged families to continue tertiary education.

Efforts are underway to review school curriculum to make it more relevant to the present reality. To enhance computer literacy and IT skills among students the government implemented Education ICT Master Plan (*iSherig*) 2014-2018. Such efforts are expected to increase employability of students upon graduation.

In terms of gender equality in education, impressive achievements have been made with Adjusted Net Primary Enrolment Rate of 98.9 per cent for girls compared to 98.7 per cent for boys. In 2017, girls make up 50.5 per cent of the total school enrolment in school education system (Class PP-XII). The gender parity index at primary, basic and higher secondary levels, stand at 1.02, 1.07, 1.03 respectively, while at tertiary education level, gender parity index is only 0.82. Enrolment in vocational and technical education is also dominated by male with female enrolment at 35 per cent.

Bhutan has made modest success in providing access to education for children with disabilities. In addition to the two special schools catering to hearing and visually impaired children, the government has established Special Educational Needs Programme (SEN) in 12 schools to integrate children with disabilities into the mainstream school system. As of 2017, 647 students with various forms of disabilities were enrolled. Additionally, there are two private institutions which provide vocational skills to disabled children.

Non-Formal Education (NFE) programme continues to be an effective program in providing basic literacy and functional skills to adult population, and especially women, who have missed the opportunity to pursue schooling. In 2017, there were 6668 NFE learners enrolled in the basic and post literacy courses in 668 NFE centres.

Box 4.1: Central Schools - Centers of Excellence for Quality Education

The present school system of providing education through a thinly spread network of 600 schools across the country is no more sustainable and conducive to providing quality education. An increasingly emerging trend is the dwindling number of student enrolment due to low birth rate and rural urban migration leaving many schools without the critical mass of student number to afford a robust social community to call it a school. Many schools have less than 100 students maintaining school infrastructures, services and facilities including teachers that is reflective of a level of quality that inspires and enable quality learning is a becomes difficult.

In addition, students, most of whom are from rural communities walk for hours to schools. At home students do not receive the much needed pastoral care at home, and nutrition is a challenge in many a homes, especially in rural areas.

In order to address these challenges, the Royal Government initiated the Central School program with the objective to optimize utilization of available physical facilities by operating a central school in a location that can serve a large population catchment to improve efficiency of resources use both physical and teaching learning.

A Central School has the following attributes:

- Safe and child-friendly ambience with strong emphasis on students' wellbeing and development;
- Three meals a day for boarding students and mid-day meal for day scholars;
- Different campuses for primary and secondary levels wherever feasible;
- Classes range from PP-X/XII with minimum enrolment of 800 students;
- Structured learning schedule of morning, evening and night study
- Provide residential facility to 80 percent of students and day-meal today-scholars as well;
- Provide free amenities such as stationery, school uniform, school shoes, socks and sports
 gears. Boarding students are also provided with mattress, blanket, bed sheet, bed cover,
 pillow, pillow case and towel and services;
- Proactive engagement of parents;
- Vibrant Alumni Association;
- Operate as autonomous school;
- Enhance pastoral care;
- Curb frequent students transfers and create strong sense of belongingness and identity.

The Royal Government piloted 24 Central Schools in 2015. Based on the success of the pilot, 27 more were established in 2016 and yet another 9 in 2017 totaling to 60 Central School across the country. Today, about 45000 students are study in the Central Schools. The Royal Government has allocated close to Nu. 5000 million for the program.



Goal 5: Achieve gender equality and empower all women and girls

Gender equality and empowerment of women and girls have been recognized as an important cross cutting theme of socio-economic development in Bhutan. Gross National Happiness (GNH), Bhutan's development philosophy, which guides Bhutan's socio economic journey aims to promote a conducive and inclusive environment within which every man, woman and child can pursue happiness and wellbeing.

Significant effort has been invested by the Government to enhance the policy and legislative environment for the achievement of this Goal over the past years.

The Constitution of the Kingdom of Bhutan 2008 is steeped in values that promote gender equality and women and girl empowerment, demonstrating unequivocally the intent of non-tolerance of the state on gender discrimination. Article 7 guarantees equal Fundamental Rights, specifically equal protection before the law, for both women and men as a Bhutanese Citizen while Article 8 mandates every Bhutanese, as Fundamental Duties, to prevent and not tolerate amongst others, abuse of women and children. Article 9 provides protection to women and children from all forms of discrimination and exploitation against women and girl child and, Article 10 of the Constitution recognizes CEDAW and other relevant conventions that Bhutan is a party to as deemed by the law of the Kingdom.

In terms of legislation, the Child Care and Protection Act 2011 (CCPA), the Penal Code (Amendment) Act of Bhutan 2011 (PCB) and The Domestic Violence Prevention Act 2013 (DVPA) all protect the rights of women and girls.

The FYPs, which provides the framework to formulate and implement all developmental activities in the country, have, since the early eighties, articulated the importance of women in development, and the 10th FYP gave major focus on mainstreaming gender in the plans. Subsequently, the 11th FYP has 'Gender Friendly Environment for Women's Participation' as a National Key Result Area out of its 16 National Key Result Areas. Similarly, the draft 12th Plan sets out 'Gender Equality Promoted, Women and Girls Empowered', in line with SDG 5.

The nation's first Gender Equality Policy has been drafted, and gender responsive budgeting has been initiated. A Gender Equality Diagnostic study of selected sectors has been carried out to provide updated baseline information on the situation of women and men, as well as the gender analyses of selected sectors to facilitate gender mainstreaming.

Bhutan also considers generating gender disaggregated data in the 12th FYP, and towards this effort, a review of the data ecosystem has been carried out to assess data needs, gaps, processes including gender disaggregated data generation, analysis and dissemination for decision-making.

A gender indicator handbook has been developed for all sectors on how to identify and work with indicators for improved gender mainstreaming.⁷⁴

Recognizing the importance of having effective institutional mechanisms to enforce the enabling legislations and implement policies and programs, the Government upgraded the National Commission for Women and Children (NCWC) to a fully autonomous agency from its previous role as an agency under the Ministry of Health in 2004 The members of the Commission comprise of Government

 $^{^{74}\,}Gender\,Indicator\,Handbook,\,National\,Commission\,for\,Women\,and\,Children\,and\,UNDP\,Bhutan,\,2018.$

Secretaries, the Judiciary, Local Government, Royal Bhutan Police, Parliament, Civil Society Organizations and the Private Sector with the first female Minister of Bhutan, as the Chairperson. The Commission is supported by a full-time Secretariat staffed with civil servants headed by a Director. In addition, the NCWC has a network of trained Gender Focal Persons (GFP) in all the Government Agencies.

These significant investments in gender equality and the empowerment of women and girls in Bhutan are of great importance given the challenges still to be addressed if the Goal is to be met. At implementation level, agencies responsible for gender equality and women empowerment face the difficulty of translating the enabling legal, policy and political environment into actions owing to limited capacities. Progress continues to be weighed down by the structural causes of traditional social norms, cultural beliefs and stereotypes⁷⁵. Bhutan ranks 124th amongst 143 countries in the 2017 Global Gender Index⁷⁶; women's participation in the workforce is dropping,⁷⁷ with low female representation in executive positions in the civil service, corporate and private sector. Only eight per cent of Bhutan's Parliament⁷⁸ are women – down from 13 per cent in 2008⁷⁹. Women working in cities' *Drayangs*, didentified as one of the vulnerable groups in Bhutan's Vulnerability Baseline Assessment, are vulnerable to exploitation, stigma and discrimination⁸¹. Single mothers and their children are also identified as a vulnerable group in Bhutan, along with survivors of domestic violence. Adolescent girls continue to face risks associated with early marriage, childbearing, and gender-based violence.

There is strong momentum by the Royal Government to address these challenges, as reflected by investments to-date. In 2018, the first nationwide survey on violence against women will be complete, providing the evidence and analysis necessary to determine how to address gender-based violence going forward, including on how to provide universal access to sexual and reproductive health through child-friendly and gender-sensitive approaches, and how to strengthen gender-based violence care and support.

Initiatives such as awareness creation and capacity building for women at the grassroots have been implemented to provide platforms to encourage women to participate in political office and decision making.

A further challenge under exploration is the impact of climate change on women in Bhutan. This is in response to the seasonal feminization of agriculture in rural areas referenced under SDGs 1 and 2, the centrality of resilient agriculture to people's livelihoods in Bhutan, and the increasing impact of climate change. The Government is seeking to better understand the gender impact of climate change, and to ensure its Nationally Determined Contribution on climate change is elaborated to address those impacts. At the same time, the Government is investing in smart agriculture approaches to help address issues of time poverty and drudgery for women farmers, and in Mainstreaming Reference Groups at the local government level, to oversee the mainstreaming of climate, gender and disaster risk reduction into local development planning and implementation. This important focus reflects the finding of the 2015 GNH survey that women farmers are the "least happy" group in Bhutan⁸².

A number of civil society organizations (CSOs) play a critical role on gender equality and women and girls' empowerment in Bhutan, The Civil Society Organizations Act of 2007, implemented by the Civil Society Organizations Authority, provides the framework for registration, functioning, funding and monitoring of CSOs. The Tarayana Foundation, the Bhutan Association of Women Entrepreneurs

43

_

⁷⁵ Bhutan Gender Equality Diagnostic of Selected Indicators, Asian Development Bank, 2014

⁷⁶ Global Gender Gap Report, 2017

⁷⁷ Bhutan Labour Force Survey Report, 2015

⁷⁹ National Assembly Strategic Plan 2019-2023, UNDP, 2018

⁸⁰ Legal entertainment establishments in Bhutan where 'Drayang workers' dance and sing karaoke.

⁸¹ Vulnerability Baseline Assessment, Gross National Happiness Commission, UNDP, 2017

⁸² Gross National Happiness Survey results, 2015, Centre for Bhutan Studies.

(BAOWE), the SAARC Business Association of Home Based Workers (SABAH), the Bhutan and the Bhutan Network for Empowerment of Women (BNEW), the Youth Development Fund (YDF), and Respect, Educate Nurture Educate Women (RENEW) respectively works on women's and youths economic empowerment and advancement, women's participation in the workforce and public life, and on issues of violence against women and children. Their work is complemented by agencies like the Bhutan Nuns Foundations (BNF) and community-based groups working for women and girls empowerment.

Strong scope exists to diversify avenues of support for women's economic empowerment, with an increased focus on enhancing access to finance and resources by the Government and CSOs, and innovative explorations of social impact investment for women's empowerment is underway.



Goal 6: Ensure availability and sustainable management of water and sanitation for all

This goal is to ensure that by 2030 every individual and household worldwide have access to clean water in their homes and adequate sanitation (safe toilet facilities). It is to ensure improving water quality through environmental protection measures and sustainable waste management.

Bhutan is endowed with water resources with an average flow of 2238 M³/s and with 94500 M³ per person per year, the highest in the region⁸³. The country's water resources are best described in terms of glaciers, glacial and high altitude wetlands, rivers and river basin and groundwater and reservoirs. In recognition of the importance of managing water resources for a secure future, Bhutan adopted Bhutan Water Policy 2008⁸⁴, the Bhutan Water Act in 2011⁸⁵, and the National Integrated Water Resource Management Plan (IWRMP) in 2016⁸⁶. In addition to these, Water Regulation 2014 was approved and Water Safety Plan for 22 municipalities have been developed. 10,707 households also benefit from the WASH system piloted through Community Health Pilot Project.

These policy, regulation and programs aim to meet the objectives of the Bhutan Water Vision 2008, which states, "Water is the most important natural, economic, life sustaining resources and we must ensure that it is available in abundance to meet the increasing demands. Present and future generations will have assured access to adequate, safe and affordable water to enhance and maintain the quality of their lives and the integrity of natural ecosystem" ⁸⁷.

99.5 per cent of the households have access to improved water sources, with 45.5 per cent piped water in the dwellings, 50.4 per cent piped water in the compound and 63 per cent of the households have 24 hours access to drinking water⁸⁸. Notwithstanding that, timely and continuous water supply remains a top priority for both rural and urban household, suggesting that physical access to infrastructure does not necessarily mean having access to water 24/7.

Agriculture is the mainstay for majority of the population for which water remains critical. Just over 23 per cent of agriculture land is irrigated, and mostly for cultivation of paddy, ⁸⁹ of which 21 per cent of the irrigation schemes have scarce or inadequate water supply. Agriculture therefore is largely dependent on monsoon rain, which affects the overall productivity of crop and livestock.

According to Bhutan Water Security Index (BWSI), 2016⁹⁰, environmental water security index was highest at 4, followed by rural drinking water and sanitation at 3.5, urban water security at 2.8, resilience at 3 and economy at only 2. The scenario is likely to deteriorate in the future, as the demand for water

Governi

⁸³ Water, Securing Bhutan's Future, 2016, Asian Development Bank/National Environment Commission, Royal Government of Bhutan (https://www.adb.org/sites/default/files/publication/190540/water-bhutan-future.pdf)

⁸⁴ Bhutan Water Policy, 2007, National Environment Commission Secretariat, Royal Government of Bhutan (http://extwprlegs1.fao.org/docs/pdf/bhu167545.pdf)

⁸⁵ The Water Act of Bhutan, 2011 (http://oag.gov.bt/wp-content/uploads/2010/05/Water-Act-of-Bhutan-2011-English-and-Dzongkha.pdf)

⁸⁶ National Integrated Water Resources Management Plan, 2016, National Environment Commission Secretriate, Royal Government of Bhutan (http://www.nec.gov.bt/nec1/wp-content/uploads/2016/08/IWRMP_Final.pdf)

⁸⁷ Bhutan Water Vision, 2008

⁸⁸ Bhutan Living Standard Survey Report, 2017, National Statistics Bureau of Bhutan, Royal Government of Bhutan

⁸⁹ National Irrigation Master Plan, 2016, Department of Agriculture, Ministry of Agriculture and Forest

⁹⁰ Water, Securing Bhutan's Future, 2016, Asian Development Bank/National Environment Commission, Royal Government of Bhutan (https://www.adb.org/sites/default/files/publication/190540/water-bhutan-future.pdf)

increases in the consumptive category. While the demand for municipal and rural drinking water is expected to increase to 37M³ and 20M³ per year respectively from the baseline of 10 M³ and 11 M³ per year (2002), irrigation water requirement is expected to increase to more than 472 M³ per year by 2022⁹¹ from 393 M³ per year.

Some of the key challenges include drying up of water sources;⁹²growing urban population putting pressure on demand for water; flooding due to expansion of non-permeable surfaces and poorly planned drainage system and pollution from sewerage and waste⁹³; and increased seasonal variation in rainfall due to climate change affecting crop cultivation⁹⁴

There is also poor understanding on the national level impact of climate change and how this affects water availability and supply to design appropriate adaptation options that needs to be implemented across landscape and the necessary physical infrastructures to protect the resources as well as to meet the demand of the sectors⁹⁵. At the same time, investing in access to water is understood to have impact across other Goals. This was illustrated by a 2017 impact assessment of Bhutan's National Adaptation Programme of Action⁹⁶ work at the community level, where improved access to piped water in households also led to improved health of beneficiaries and improved school attendance among children. 97

To secure water for drinking and other economic needs, water security has been prioritized as one of the national key result areas in the 11th FYP. 98 Bhutan has endorsed legislation and policies related to safe water since 2007 and the proportion of people with access to safe water has almost doubled.

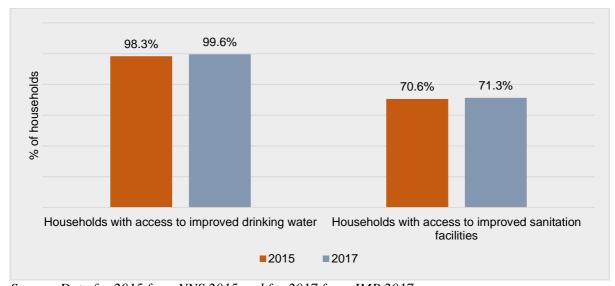


Figure 2.7: Households with Improved Water and Sanitation Facilities (2015 and 2017)

Source: Data for 2015 from NNS 2015 and for 2017 from JMP 2017

⁹¹ Water Resources Management Plan and Update of the Power System Masterplan, Bhutan 2003, Department of Energy, Ministry of Trade and Industry

⁹² http://www.kuenselonline.com/water-shortage-slow-death-of-rural-communities/

⁹³ Water, Securing Bhutan's Future, 2016, Asian Development Bank/National Environment Commission, Royal Government

⁹⁴ http://www.kuenselonline.com/high-temperature-and-rainfall-affects-winter-chillies-in-nichula/

⁹⁵ National Adaptation Plan Readiness Project (draft), UNDP, 2018

⁹⁶ Climate Change Adaptation, UNDP-GEF Project, 2013 – 2018, from the National Adaptation Programme of Action II

⁹⁷ Impact assessment, NAPA II, UNDP, 2017

⁹⁸ Eleventh Five Year Plan Volume 1: Main Document, 2013-2018 "Self-reliance and Inclusive Green Socio-Economic Development", Gross National Happiness Commission, Royal Government of Bhutan (http://www.gnhc.gov.bt/en/wpcontent/uploads/2017/05/Eleventh-Five-Year-Plan.pdf)

More people now have access to improved sanitation across the nation. The BLSS 2017 shows that 82 per cent of the households have access to a flush toilet, while water, sanitation, and hygiene (WASH) campaigns were successfully implemented in schools and communities.

Ensuring access to improved water and sanitation in schools and health facilities is a continuing priority. Approximately six percent of under-five deaths are caused by diarrhoea. The Child Multidimensional Poverty Index report (2016) found a high correlation between child poverty and deprivations in improved sanitation. Student toilet ratios show that girls' toilets in lower, middle and higher secondary schools do not meet the national standard of one toilet for every 25 girls. Safe drinking water and sanitation is still an issue in monastic institutions, including nunneries. The Government will therefore work to target rural and poor households with children for interventions; strengthen the Rural Sanitation and Hygiene Programme; expand access to improved water and sanitation in all monastic institutions, including nunneries; and promote access to and use of improved sanitation facilities and safe disposal of child faeces in homes.

Some of the challenges in improving sanitation are:

- Inadequate sanitation facilities in informal/temporary settlements and nomadic populations
- Lack of accurate data on sanitation
- Proper management of septic tanks, safe transport and disposal of sludge in urban and periurban areas
- Inadequate sanitation infrastructure and its O&M is a major challenge.

To address the issues on sanitation and hygiene, the Government has developed the National Sanitation and Hygiene Policy and Water and Wastewater Master Plans. In addition, water and sanitation is a National Key Result Area in the 12th FYP.

Box 6.1: The Role of Water Safety Plans: A success story for Bajo Water Supply System

Wangdue Phodrang dzongkhag is one of the largest districts in the western part of Bhutan. Bajo was selected as the model town for implementing Water Safety Plan (WSP) in Bhutan for urban water supply. The water supply system for Bajo caters to about 6000 water users through 330 metered pipe connections.

Before: The quality of drinking water before the implementation of WSP was very poor with significant number of water related illnesses reported every year. The treatment plant was not well maintained due to lack of trained operators, capacity and equipment for operational monitoring of the water supply system. As a result, the treatment plant was bypassed most of the time and raw water was supplied to the consumers. Quality of water supply was not considered a priority.

Water testing was not carried out by the municipality. Although test for microbial content was carried out by the Hospital, the test results were not shared with the municipality. The water supplier was not able to keep records of the expenditures incurred for providing infrastructures in place. The identification of hazards which contribute to poor quality of water at various points was neglected. The unaccounted flow of water was more than 40 per cent resulting in the shortage of water. Although, complaint log book was in place, there were no proper records on the nature of complaints and actions taken.

After: In less than two years after implementation, the WSP for Bajo water supply system has contributed to significant improvement in the water infrastructure as well as strengthening of system operations and management. Improvements were made to infrastructures to minimize the risk of contamination of water supply.

A review of available microbial water quality data from 2012 till date indicates significant improvements in water quality since the installation of pressure filters and backwash pumps, the improvement of the chlorination system and the provision of water quality testing equipment and trainings, all of which were identified from the water safety plan. Various SoPs were developed and made available to the operators working at the field on O&M of water supply system. Customer care services were improved. A new record book was maintained after WSP and detailed records of complaint and action taken were recorded. Various sensitization programs were conducted by the municipality on water quality to the consumers.

Expenditures related to water supply is tracked and recorded. This has helped in determining the operational cost for water supply. The operational monitoring plan (water quality testing and visual inspection) is clear and comprehensive and is being implemented by the highly competent operators. Microbiological testing of water quality is done by the hospital every month and the results are shared to the municipality for correction where required, in the system.



Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all

Bhutan is endowed with natural energy resources, including hydropower, solar, wind, and mineral resources. Bhutan meets its energy needs primarily from fuel wood and hydroelectricity which account for the largest share of energy use in the economy. As per Bhutan Energy Data Directory 2015, the country's energy supply mix shows that there is still a large dependence on thermal energy (72 per cent) out of which petroleum products contribute about 21 per cent, followed by industrial consumption of coal and its derivatives which forms 15 per cent and biomass 36 per cent. The remaining source of energy is from electricity contributing 28 per cent of the aggregate fuel mix.

In terms of Total Oil Equivalent (TOE), Bhutan consumed 650,220 TOE of energy⁹⁹. The highest energy consumption is observed in the building sector with 41.58 per cent, followed by industry at 37.22 per cent, transport with 18.64 per cent and remaining 2.56 per cent in agriculture and other auxiliary sectors.

Hydropower is Bhutan's comparative advantage and its sustainable exploitation has had significant impact in boosting the country's economy. It constitutes 16 per cent of GDP and 30 per cent of revenue. As of 2017, the installed generation capacity is about 1,488 MW and three mega projects that would contribute an additional 2,940 MW, are under advanced stage of construction. Today, 99.9 per cent of the households in Bhutan have access to electricity.

Bhutan Sustainable Hydropower Development Policy 2008 provides a framework and guidelines for sustainable harnessing of hydropower energy. However, the sustainability could be hampered by adverse impacts of climate change. Efforts to diversify sources of energy have been made through adoption of Alternative Renewable Energy (ARE) Policy, which targets to generate 20 MW from various technologies by 2025. The country has installed a 600 kW wind power plant on a pilot basis that electrifies 300 households. A domestic feed in tariff policy is under formulation. Further, to encourage use of renewable energy, rural households are provided with 100 units of free electricity a month.

To reduce dependency on import of energy for household needs and improve energy security, the country has so far promoted the use of energy efficient cooking stoves and installed about 4,403 biogas plants. Other initiative includes promotion and distribution of Light Emitting Diode (LED) bulbs nationwide at subsidized rate.

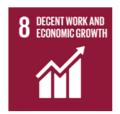
Demand-side management of energy and improvements in the energy performance standards have been carried out in the areas of industry, transport, buildings and appliances through adoption of energy efficiency and conservation standards.

At the regional level, being cognizant of the benefits of optimal sharing of the limited energy resources, especially in the field of hydropower energy that will further contribute towards combating global warming and climate change, a trilateral cooperation among Bhutan, Bangladesh, and India for investment in hydropower project is being initiated.

Despite the progress made in harnessing renewable energy, challenges remain. Successfully realizing SDG 7 through scaling the above initiatives will require significant investment in terms of human resources, and technology transfer. The Royal Government will continue efforts to improve investment climate and review policy and regulatory framework to attract financing.

_

⁹⁹ Bhutan Energy Data Directory 2015



Goal 8: Promote Sustained, Inclusive and Sustainable Economic Growth, Full and Productive Employment and Decent Work for All

Bhutan has made impressive development progress and is poised for graduation from LDC status by the end of 12th FYP having met the GNI and HAI thresholds.

The average economic growth rate in the last five years (2012-2016) was 5.5 per cent, which placed Bhutan amongst the fastest growing economies in the world¹⁰⁰. The economy grew at 7.99 per cent in 2016 and trend is expected to continue. The growth was mainly driven by the industry sector, particularly the construction sector with 13.3 per cent in 2016.

Bhutan continues to evolve into a modern economy with the industry and services sectors growing more rapidly than the agriculture sector (primary sector). The share of the primary sector reduced from 27 per cent in 2000 to 16.5 per cent in 2016. On the other

"Why am I always putting so much emphasis on the economy? The answer is simple. I am a realist, and there is no doubt in my mind that in this day and age, a nation's success is determined by the strength and competitiveness of her economy. This may change in the future, but today, if we are to succeed in this globalized world, we need a strong economy".

His Majesty the King, 2007

hand, the shares of secondary and tertiary economic sectors have grown from 35 per cent to 41 percent and 38 per cent to 42 per cent respectively, during the same reporting period.

With "Self-reliance and Inclusive Green Socio-economic Development" as the overarching objective of the 11th FYP the country has put strong emphasis on Economic Development through adoption of the Economic Development Policy (EDP) 2016. The policy identifies hydropower, agriculture, cottage and small industries, tourism, and mining, referred to as the "Five Jewels" that have the potential for export, revenue generation and employment creation, and targeting to achieve an average economic growth rate of 10 per cent. A set of broad strategies including diversification of exports and economic base, development of 'Brand Bhutan' and industrial cluster approach is set to propel the development of the selected priority sectors.

To foster non-formal rural economic growth, the Government instituted Rural Enterprise Development Corporation Limited to provide collateral free loan at an interest rate of 4 per cent¹⁰¹, and also launched Priority Sector Lending (PSL)¹⁰² scheme to enhance access to finance to stimulate the cottage and small industries (CSI) as an important economic growth engine.

However, Bhutan faces significant challenges in diversifying its economy, in part because of the inherent constraints associated with being landlocked and small population. Institutional setbacks such as lack of policy coherence, coordination and slow implementation progress in major programs continue to deter the growth of private investment. Lack of adequate infrastructure, land, access to finance and issues associated with labor market are prominent binding constraints faced by the private sector. In addition, the country's debt to GDP ratio has increased to almost 117 per cent by mid-2016, and trade deficit of 25 per cent of GDP.

¹⁰⁰ http://www.kuenselonline.com/spectacular-economic-growth-but-10-unachievable-govt/

¹⁰¹ http://www.redcl.gov.bt/language/en/company-profile/

¹⁰² https://www.rma.org.bt/PSL/psl.pdf

While overall unemployment in 2017 was 2 per cent¹⁰³, youth unemployment remains a concern. Despite putting in place various policy instruments and strategies such as Guaranteed Employment Scheme (GES) and other employment service including entrepreneurship trainings, the youth unemployment increased from 9.2¹⁰⁴ per cent in 2015 to 13 per cent in 2017.

This trend is likely to increase as more and more young graduates enter job market, because despite its rural roots, Bhutan's population today is increasingly urbanized, young¹⁰⁵, online, and educated¹⁰⁶. With half the population below 28 years-of-age, now is the time for Bhutan to capitalize on its demographic dividend, respond to the changing needs of youth, and invest in jobs. Therefore creating more jobs, accelerating youth entrepreneurship and improving the productive capacity of the economy is a national priority¹⁰⁷. To this effect, CSI development, organic agriculture, rural enterprise development, and business start-ups have been identified as key initiatives.

Box 8.1: One Gewog One Product Program

One *Gewog* One Product (OGOP) is a noble initiative initiated by Her Majesty the *Gyeltsuen* Jetsun Pema Wangchuck to promote production of authentic Bhutanese produce for both domestic and international market, contribute to poverty alleviation, improve rural livelihood, and promote entrepreneurship among the Bhutanese people. While the main beneficiaries are the rural farmers, it is multi-sectoral in nature comprising of production, value addition, standardization and marketing, involving many stakeholders along the whole value chain.

The overriding objective is to 'produce at least one authentic Bhutanese product from each *gewog* to increase and supplement rural cash income'.

OGOP is a community led initiative, and the community decides on which product to include as OGOP product based on the comparative advantages and production capacity. The government supports the farmers through education, training, technical backstopping and provision of technology.

Currently there are more than 80 *Gewogs* supplying close to 106 products which are sold through the main outlet in Thimphu and at Paro International airport.



The program is regularly monitored and reviewed to identify best practices and challenges. It is going to be scaled up to include all 205 Gewogs and 20 Dzongkhags in the 12^{th} FYP as a flagship program.

51

¹⁰³ Bhutan Living Standard Survey, 2017

¹⁰⁴ https://www.statista.com/statistics/708351/bhutan-youth-unemployment-rate/

¹⁰⁵ Population Situation Analysis, UNFPA, 2017.

¹⁰⁶ State of the World's Children Report, UNICEF, 2017

¹⁰⁷ His Majesty's 110th National Day Address, 2017



Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Planned development has brought about significant structural changes in the economy moving away from the primary sector towards secondary and tertiary sectors. The rapid growth and consequent structural changes have been driven by the public investment in hydropower projects and other critical infrastructures. The occupational structure of the economy has, however, not, shifted in a manner consistent with the changes in the sectoral composition of GDP. Around 60 per cent of the population are still engaged in agriculture sector.

Expansion and modernization of transport, energy and communication infrastructure network is an essential component of growth strategy. Promoting synergy and integration across these infrastructures can bring about significant economic gains through enhanced efficiency and cost effectiveness.

Energy Infrastructure: Affordable, reliable and renewable energy is key to sustainable development and the transition to modern society. Power generation in the country relies exclusively on hydropower to meet the domestic and industry demand, and has underpinned the economy's rapid growth. As of 2017, 99.9 per cent of the households in Bhutan has access to electricity¹⁰⁸. While Bhutan has an estimated hydropower potential of 30,000 MW, only 23,760 MW is techno-economically feasible, and the current installed capacity is 1448 MW¹⁰⁹. 70 per cent of the total power generated is exported to India, however during the dry season when the river flow reduces, Bhutan cannot meet its own peak system demand and is required to import energy back from India. This is expected to ease with the commissioning of the Punatsangchhu I & II and the Mangdechhu projects, which will bring the total installed capacity to around 5000 MW by 2020.

ICT Infrastructure: Seamless information exchanges that are affordable and available all the time to all is the basis for an efficient and interconnected business environment, people-to-people connectivity, efficient resource-use as well as transparent governance. Bhutan's focus in recent years has been on strengthening ICT infrastructure such as fiber optic connectivity, government intranet system and national data center. Critical infrastructure such as optical ground wire (OPGW) national backbone, fiber optics and internet connectivity are already laid out in all the 20 districts. Today, 97 per cent of the households have mobile phones, and 58 per cent have Internet connection¹¹⁰.

In addition, electronic-government interoperability framework and enterprise architecture to enable efficient sharing of information has been developed. Bhutan has developed its first TechPark with support from multilateral donors and PPP with the objective of employment generation and promoting knowledge based society. The park also serves as innovation hub for startup businesses¹¹¹. To foster innovation and ICT enabled growth, Bhutan is investing in Start-up innovation camps and is committed to creating a start-up space in the capital.

Industrialization: Bhutan's industrial sector has been largely driven by hydropower and construction. Economic growth was the sustained by the growth of construction sector (10.33 per cent) in 2017, which

1.

¹⁰⁸ Bhutan Living Standard Survey, 2017

¹⁰⁹ https://www.adb.org/sites/default/files/linked-documents/cps-bhu-2014-2018-ssa-01.pdf

¹¹⁰ Bhutan Living Standard Survey, 2017

¹¹¹ http://thimphutechpark.com/

led to aggregate industrial growth¹¹². Other industry sub-sector recorded modest growth: the manufacturing subsector remains relatively small, accounting for only about one-fifth of the industrial sector. The narrow based Bhutan's manufacturing sector is also dominated by a small number of major operators and a larger number of small manufacturing plants concentrated in the food processing activities and cottage industries. In general, the manufacturing sector in Bhutan is locked into relatively low value-added products. Furthermore, with a population of only 768,577, the small size of domestic market offers limited opportunities to harness economies of scale for production. Capacity constraints and negligible investment in the area of science, technology and innovation are a major constraint facing the Bhutanese economy.

The Economic Development Policy (EDP) places strong emphasis on the promotion of a rational and scientific temperament, dignity of labor, spirit of adventure, entrepreneurship, creativity and innovation with ethics and hard work. The following strategies of EDP closely aligns with the essence of SDG 9:

- Diversify the economic base with minimal ecological footprint.
- Harness and add value to natural resources in a sustainable manner.
- Increase and diversify exports.
- Promote Bhutan as an organic brand.
- Promote industries that build the Brand Bhutan image.
- Reduce dependency on fossil fuel.

An action plan has been recently developed to implement the EDP. In 2009, during the 15th Conference of Parties (CoP) on the UNFCCC, Bhutan committed *to remaining carbon neutral* at all times, which has a direct influence on how Bhutan takes forward its economic development and industrialization. Recognizing that challenges of environmental issues, concerns with expansion of developmental activities related to urbanization, and climate change due to global warming affect, first and foremost, the poor and vulnerable, the Government is implementing a framework called "*Framework to Mainstream Environment, Climate Change and Poverty (ECP) concerns and other cross-cutting issues into the 11th FYP'. The* framework contains six steps of mainstreaming, and forms an integral part of the economic development of central agencies and local governments. These elements will also be taken forward through into the elaboration of Bhutan's Nationally Determined Contribution and its National Adaptation Plan.

Transport Infrastructure: It is key for driving economic and social development and an important mechanism for raising a country's competitiveness and achieving inclusive and sustainable development. However, transportation is a major obstacle within and beyond Bhutan's border, given that the country is landlocked, and situated in geologically different terrain, raising the cost of construction as well as the cost of production. Bhutan therefore suffers from limited regional and international connectivity in terms of greater market integration.

India is by far the largest trading partner accounting for more than 80 per cent of the trade value. With the exception of small volumes of air freight, all trade is routed through the Asian Highway AH 48 that connects Thimphu to India (West Bengal) through Phuentsholing. Expansion of trade relationships beyond its current dominant trade partner, India, faces the hurdle of limited, as well as access to shipping ports.

The Government has built more than 18,396 km of roads¹¹³, linking Thimphu with the Central and Eastern Districts, plus a series of north-south connections to the Indian Border, including the main access between Thimphu and the border at Phuentsholing. All the *Dzongkhags* are connected by blacktopped motorable roads forming part of the National Highway Network. Additionally, the Government is double laning the Northern East-West Highway (NEWH).

¹¹² Bhutan Accounts Statistics, 2017

¹¹³ Administrative data, PPD, MoWHS.

To make the road infrastructure resilient to impacts of climate change, as of 2016, 94 *Gewog* Centres (GCs) roads have been black-topped and 37 are underway. The Government has built 11,196 km of farm roads across the country. Upgradation of the two domestic air ports in the East and South will facilitate integration of regional trade and business for larger economic gains. Significant investment has been made in *Phuentsholing Thromde* to stabilize the climate change-related landslides.

To meet the objectives of "*Bhutan Transport 2040: Integrated Strategic Vision*", the Government also updated its National Transport Policy that lays the foundation for an ecosystem approach to promote sustainable and inclusive transportation that is safe, reliable, accessible and affordable, encompassing land, air, and water transport, keeping in line with "green development" approach and SDG 9. To accelerate the implementation of this strategic vision, Bhutan is working towards a low-emission transport system, with priority on electric vehicles through the establishment of a network of quick charging stations and other incentives in the 12th FYP. A Nationally Appropriate Mitigation Action plan for transport is also in place seeking for investment. With air pollution on the rise, a tripling of light vehicles on the road since 2005¹¹⁴, and the population of the capital Thimphu set to double by 2040, ¹¹⁵ investing in a green transport system for the future will be fundamental to realize Bhutan's carbon neutral promise.

The construction sector is a fundamental socio-economic sector, which permeates most of the other sectors. It contributes about 16.86 per cent to GDP (EDP 2016) and employs 3.2 per cent of the Bhutanese work force. The Government appropriations reveal that about 60 per cent of the total outlay is allocated for procurement, out of which 80 per cent accounts for procurement of construction works. Over the years Government has made number of interventions geared towards fostering and improving the construction sector. Despite such interventions, the growth of the sector is only in numbers and not in competence or professionalism, leaving substantial room for improvement. The sector is confronted with lot of challenges, which impede its growth and prevent from harnessing full potential. Therefore, the Government has initiated the formulation of an inclusive and sustainable National Construction Industry Policy.

⁻

¹¹⁴ Sustainable Low-emission Urban Transport Systems, Project Proposal, UNDP 2017



Goal 10: Reduce inequality within and among countries

Reducing inequality such that no-one is left behind is at the core of all the SDGs. This goal, among others, aims to empower and promote social, economic and political inclusion irrespective of specific characteristics such as age, gender, sexual orientation, disability, religion, economic or other status.

divides in our society between the rich and the poor. Another objective of the Land Kidu has been to empower and uplift people, and allow them to prosper'.

'It is a concern that in a rapidly growing

economy, inequality may bring great

Bhutan is determined to address emerging concerns of different forms of inequalities across His Majesty the King. 2016

all sections of society through the implementation of policies and legal frameworks, as reflected consistently in the FYPs and assessed in the development stage of any policy or project using the GNH Policy Screening Tool. Tackling poverty and inequality feature as priorities in both the 11th as well as in the 12th FYPs. The latter focuses on creating a 'just and harmonious society' through reducing poverty, creating gainful employment, providing quality health and education services, strengthening democracy and decentralisation, reducing corruption, improving access to justice, and promoting gender equality and women and girls' empowerment. The intent of the Government to address issues of inequality is illustrated through the formulation of Bhutan's first Gender Equality Policy and the National Policy for Persons with Disabilities.

More fundamentally, the commitment towards inclusive development is also reflected in the Constitution of the Kingdom of Bhutan, which celebrates its 10th anniversary in 2018. Article 7 (Fundamental Rights) Section 15 of the Constitution states that 'All persons are equal before the law and are entitled to equal and effective protection of the law and shall not be discriminated against on the grounds of race, sex, language, religion, politics or other status'. In addition, Article 9 (Principles of State Policy) Section 22 of the Constitution also states 'The State shall endeavour to provide security in the event of sickness and disability or lack of adequate means of livelihood for reasons beyond one's control'. As Bhutan prepares itself for graduation from the LDC status, holding true to these Articles of the Constitution is a priority.

With regard to income inequality, the Gini coefficient increased slightly to 0.38 in 2017¹¹⁶ from 0.36 in 2012¹¹⁷. In rural Bhutan, the index is higher at 0.35 compared to urban which is at 0.32 This divide is apparent when considering consumption patterns wherein per capita expenditure of households in the richest per capita consumption quintile is more than seven times that of households in the poorest per capita consumption quintile ¹¹⁸.

In an effort to bridge the growing income gap, targeted programs such as the National Rehabilitation Program for landless and destitute people are being implemented. The Government has put in place a Resource Allocation Formula (RAF) for allocating financial resources to Local Government, taking into consideration the multidimensional poverty index and other factors to help direct resources to poorer areas. The minimum National Workforce Wage was revised from the range of Nu 165-240 per day to Nu 215-324 per day. Life and house insurance are mandatory and these are subsidized by the

¹¹⁶ Bhutan Poverty Analysis Report, 2017

¹¹⁷ Poverty Analysis Report, 2012

¹¹⁸ Bhutan Living Standard Survey, 2017

Government. Between 2009 and 2010, six earthquakes of varied magnitudes hit Bhutan affecting more than 7000 rural homes, and compensation amounting to Nu. 130 million was paid to them.

On financial inclusion, the Government has drafted the Financial Inclusion Policy (FIP). Regulations on Microfinance Institutions (MFIs), and Branchless Banking and agent regulations are also in place. In the absence of dedicated MFIs, the state-owned Bhutan Development Bank Limited (BDBL) provides credit to small and medium-scale industrial and agricultural activities through Group Guarantee Lending Scheme (GGLS). BDBL has established 29 branches in all the Districts and has a microloan portfolio of nearly 3000 customers in their GGLS. It has also launched savings products for the youth and the elderly, and the Government monitors the proportion of population with savings account as a measure of the annual performance of local Governments. In 2016, the Rural Enterprise Development Corporation Limited was instituted to provide collateral free credits at 4 per cent interest; and in 2018, the Priority Sector Lending scheme was launched at 8 per cent to boost non–formal and formal cottage, small, and medium enterprises. By enhancing financing inclusion and improving access to finance, these measures aim to enhance the wider participation of the rural population, especially rural women, in Bhutan's development.

Beyond these initiatives to address income inequality, the Government recognizes the multiple vulnerabilities, including to climate change and disasters, that threaten to leave people behind. Therefore, in 2017 Bhutan launched its first Vulnerability Baseline Assessment 2016¹¹⁹ (VBA) to better understand those greatest at risk of being left behind. Together with the 2016 Climate Vulnerability Assessment and the 2018 Population and Housing Census¹²⁰, the vulnerability baseline provides a strong basis for improved development targeting over the next five years.

The fourteen socio-economic vulnerable groups are those considered most vulnerable to risk, stigma, discrimination, or to falling back into poverty.

Figure 2.8: Vulnerable Groups in Bhutan, Vulnerability Baseline Assessment 2016

- 1. The elderly in need of support
- 2. Orphans
- 3. People with disabilities
- 4. Out of school children
- 5. Unemployed youth
- 6. Children in conflict with the law
- 7. People who beg
- 8. Victims of domestic violence
- 9. Those working in vulnerable places like *Drayangs*
- 10. Single parents and their children
- 11. People affected by HIV/AIDS
- 12. Individuals engaging in risky sexual behaviour
- 13. People using drugs and alcohol
- 14. Vulnerable urban dwellers, particularly living in slums in and near urban centres.

¹¹⁹ Vulnerability Baseline Assessment for Bhutan, Gross National Happiness Commission and UNDP,2017

¹²⁰ The census data is not yet available for reference in the VNR.

The VBA assesses the vulnerability of each group, identifies causes, reviews the current policy and program landscape and how it enables or blocks groups to manage or overcome vulnerabilities, while also identifying opportunities for further improvement. It is designed to guide the Government in focusing on leaving no-one behind on its development journey.

This includes ensuring equality in the eyes of the law, with equal access to justice proposed as a new National Key Result Area for Bhutan's 12th FYP. In this vein, His Majesty the King commanded that all laws should be reviewed for consistency with the Constitution. Under the leadership of the Attorney General, a task force was established comprising members from the Judiciary, the Office of the Attorney General (OAG), the Cabinet Secretariat, the Bhutan National Legal Institute, the Royal Bhutan Police and a private firm. In 2015, the task force completed its first review of Bhutan's 126 Acts (until 2014). The second review which is more comprehensive is expected to be completed by 2018.

The Justice Sector institutions have come together for the first time to help ensure a harmonized, end-to-end approach in enhancing access to justice in Bhutan (see more under Goal 16).

Looking ahead, the VBA presents a number of recommendations which the Government expects to take forward:

- Strenghten capacities within the civil service, civil society organizations and Government bodies to address issues of vulnerability;
- Enhance data on vulnerability and related inequalities, and the capacity necessary for that data to influence policy and legislation;
- Continue to review Bhutan's legal framework, with a focus on vulnerabilities and inequalities;
- Maximize opportunities within the 12th FYP to take forward these recommendations and continuously assess and update the categorizations of vulnerable groups.
- Further explore vulnerabilities related to climate change, natural hazards, and related vulnerabilities, and the associated policy and institutional frameworks



Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable

As a developing nation, Bhutan continues to undergo fast socio-economic with rapid urbanization. The Population and Housing Census of Bhutan (PHCB) 2005 initially highlighted the trend: urbanization increased from 15 per cent in 1995 to 20 per cent in 2000 and 31 per cent in 2005, with figures from the 2017 census set to reaffirm this trajectory. By 2040, the urban population is expected to double in size. 121

Traditionally, Bhutan's settlement system consisted of villages developed around administrative centers and monastery complex. Patterns and forms of settlements were mostly shaped by the availability and topography of the land, availability of water, safety and security. However, with the introduction of modern development in the 1960s, new forms of settlements based on trade and commerce developed, and continue as the mainstay of urban planning to this date.

The Government considers human settlements as both living spaces and cultural landscapes. They should develop as parts of an integrated system that considers the need for quality social services, environmental sustainability, disaster risk reduction, and climate change adaptation. Bhutan's strategies and policy instruments are geared towards ensuring that cities and settlements are inclusive, livable and affordable. The Government launched its Bhutan National Urbanization Strategy in 2008¹²², developed the National Human Settlement Policy¹²³, drafted Spatial Planning bill and Guideline for Differently Abled Friendly Construction¹²⁴. The 11th FYP Plan implemented human settlement development programs and projects to enhance the provision of basic services in both urban and rural areas, enhancing the livability of the four major Thromdes¹²⁵ and mainstreaming disaster management into human settlement plans. Similarly, the 12th FYP has prioritized "*Livability, Safety and Sustainability of Human Settlements Improved*" as one of its National Key Result Areas (NKRAs), and a Nationally Appropriate Mitigation Action (NAMA) Plan on human settlements has been developed, ready for investment.

To provide access to safe, affordable, accessible and sustainable transport for all, the Government continues to invest in improving road and air networks (Figure 2.9). In keeping with the vision of "Bhutan Transport 2040: Integrated Strategic Vision" in urban areas like Thimphu and Phuntsholing, public transport services have been introduced with ramps and designated seating for elderly citizens, pregnant women , and people with disabilities. Efforts to introduce green public transport and 'intelligent' transport systems are also underway to reduce emissions, increase the ease of mobility, and improve 'livability' of Bhutan's cities as they grow (see Goal 9 for more information on transport). At the same time, to aid cultural vibrancy, the Human Settlement Strategy 2017 identifies the need to protect cultural and other heritage forms such as ecological sites from the negative impacts of urban development.

-

¹²¹ Sustainable Low-emission Urban Transport Systems, Project Proposal, UNDP 2017

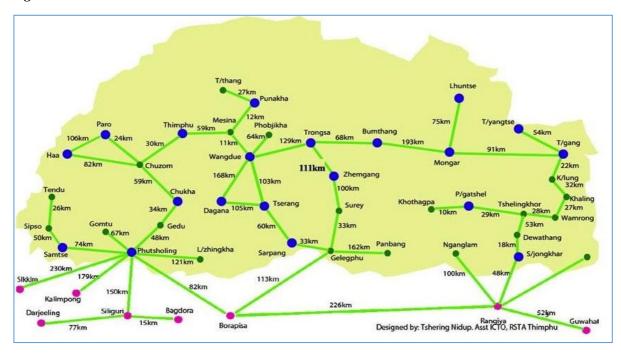
¹²² http://www.mowhs.gov.bt/wp-content/uploads/2010/11/Bhutan National Urbanization Strategy 2008.pdf

¹²³ http://www.gnhc.gov.bt/en/wp-content/uploads/2017/05/Draft_-National_Human_Settlement_Policy_of_Bhutan.pdf

¹²⁴ http://www.undp.org/content/bhutan/en/home/presscenter/articles/2016/11/23/undp-to-support-bhutan-s-national-transport-policy.html

¹²⁵ Cities

Figure 2.9: Road Network



Despite the positive and enabling policy environment, Bhutan's urbanization trend has given rise to multiple challenges. An estimated 10 per cent¹²⁶ of Thimphu city's population live in informal settlements. Cities are seeing an increased demand for safe water¹²⁷, and sanitation and solid waste management are becoming major issues¹²⁸. Air pollution is rising with a tripling of light vehicles on Thimphu's roads since 2005¹²⁹. Since most prime agriculture land and urban settlements are situated along the river banks, flooding and the damage it causes increase annually, aggravated by the increasing frequency and intensity of rain caused by climate change. River flood hazards are classified as 'high' for Bhutan¹³⁰ and managing flash floods could become a new normal for the country¹³¹.

Bhutan also falls within the active seismic zones IV and V of the India tectonic plate, where V comprises the areas most at risk. The India plate is driving into the Euroasia plate on which Bhutan sits at a rate of approximately 47 mm per year. Experts indicate that the resulting pressure build-up means a major earthquake is only a matter of time. In 2009, a magnitude 6.1 earthquake claimed 12 lives, damaged 4950 rural homes and number of government facilities including school and health centers. As more people move to cities, the potential for mass damage and mass casualties in a severe earthquake increases. Efforts are underway to enhance disaster preparedness and contingency planning, and to map who is vulnerable to seismic activity, based on their housing typology to help ensure swift and targeted post-disaster response. But urban settlements are not yet ready to withstanding a major natural disaster.

While efforts to develop sustainable human settlement are being pursued, Bhutan faces increasing challenges in balancing economic development and conserving its cultural heritage and environmental assets. Drying up of water sources and increasing waste generation in urban areas are emerging issues

¹²⁶ Vulnerability Baseline Assessment for Bhutan, Gross National Happiness Commission and UNDP, 2017: www.gnhc.gov.bt/en/wp-content/uploads/2017/11/UNDP-Book-for-Website.pdf

¹²⁷ Preparation of a National Adaptation Plan for Bhutan with a Focus on Implementation of Comprehensive Risk Management Of Water Resources, GNHC and UNDP for the Green Climate Fund, 2018

¹²⁸ Nationally Appropriate Mitigation Action in Municipal Solid Waste Sector (Organic) in Bhutan, Royal Government of Bhutan and UNDP, 2017

¹²⁹ Bhutan Sustainable Low-emission Urban Transport Systems, Ministry of information and Communication and UNDP-Global Environment Facility Project Proposal , 2017

¹³⁰ http://thinkhazard.org/en/report/31-bhutan/FL

¹³¹ https://www.thethirdpole.net/2017/07/18/flash-floods-the-dangerous-new-normal-in-bhutan/

¹³² http://www.kuenselonline.com/earthquakes-in-bhutan-past-present-future-part-ii/

that pose challenges to sustainability. To address these issues the Government has initiated providing incentives for management of the protected zones within Thromde boundary and implementation of Waste Presentation and Management Act.

Housing shortage is prevalent in all major urban cities and in almost all the districts, spurred by the increasing number of people. The BLSS 2017 reported that about 60 per cent of people owned their own dwellings, out of which 83 per cent households were in rural areas and only 17 per cent in urban areas. 62 per cent of households in urban areas rented their dwellings. In line with the policy to provide safe and affordable housing, the National Housing Development Corporation Limited (NHDCL) was established in 2009 and developed 1134 housing units between 2000 and 2017. The surge in private investment in housing sector in the recent years has helped narrow the gap between supply and demand for housing especially in urban areas like Thimphu and Phuntsholing. This becomes a critical issue to be addressed as it plays a key socio-economic role. The Government is revising the National Housing Policy of 2002 to create enabling environment for affordable housing.



Goal 12: Ensure Sustainable Consumption and Production Patterns (SCP)

Recognizing the importance of Sustainable Consumption and Production (SCP), Bhutan initiated implementation of SCP in 2015.

The following status speaks specifically to the goal of Sustainable Consumption and Production (SCP) as defined in indicator 12 of the SDGs:

"We commit to making fundamental changes in the way that our societies produce and consume goods and services. Governments, international organizations, the business sector and other non-state actors and individuals must contribute to changing unsustainable consumption and production patterns." ¹³³

The Royal Government initiated implementation of Sustainable Consumption and Production through the following:

"The problems facing the world today – they challenge all of us equally. And the solutions to these challenges must come from a real sense of concern and care for others, for all sentient beings and, for future generations. We must care about what happens to this".

His Majesty the King

- Mainstreaming SCP into Policies, Plans and Programme;
- Sustainable Tourism: Green Hotel Guideline
- Green Public Procurement
- SCP Curriculum in Vocational Training Institutes, Non-Formal Education and Education Institutes
- Paperless Guideline

Recognizing the importance of mainstreaming and institutionalizing SCP into government policies, plans and programmes, it has been incorporated in the GNH Policy Protocol and Policy Screening Tool. Efforts are also being made to mainstream SCP into plans, especially in the 12th FYP.

Additionally, a Youth Action for 4Rs (reduce, reuse, recycle and recovery) programme was launched. The program aims to build a lasting and sustainable partnership in waste management with the schools; establish a conducive environment for fostering environmentally friendly thinking in our youth; and instill civic responsibility and good ethics in waste management in families and society by making our youth goodwill ambassadors in waste management.

Tourism sector is one of the major sources of foreign exchange in the country, and, as such it is critical to promote sustainable tourism. The Green Hotel Guideline was developed and launched in 2017 to promote green practices in the hospitality and tourism sectors. The Tourism Council of Bhutan and the National Environment Commission in collaboration and consultation with other stakeholders will develop and award Green Leaf to hotels implementing green hotel guideline.

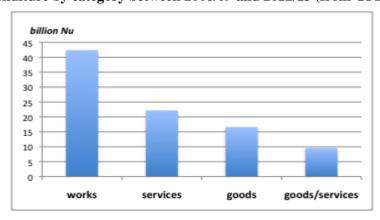
As per SCP Bhutan report 2016, the average government procurement expenditure per year was about Nu. 18.2 billion, which accounts for 17.4 per cent of GDP in 2014.

¹³³ UN, 2015, Paragraph 28

Given the high volume of procurement by the government, green elements are being incorporated into the public procurement system such as standard bidding documents with clear green component.

Figure 2.9: Expenditure by public agencies between 2008/09 and 2012/13 (from GPP 2015c)

Figure 2.10: Expenditure by category between 2008/09 and 2012/13 (from GPP 2015c)



SCP curriculum has been incorporated in the education sector – secondary, vocational and non-formal educational institutions.

In 2013 the Government introduced the paperless office initiative to reduce use of paper, and began tracking per capita expenditure on stationary. Subsequently, a guideline on the same was developed in 2016.Domestic Materials Consumption (DMC) and Material Footprint (MF) measures have been adopted, along with other proxy measures, to determine the performance of a country. In terms of Bhutan's performance for material use, there has been a trend towards unsustainable use between 1970-present. Key indicators used by Schandl et al. (2016) include Total direct material input, Domestic Material Consumption (DMC) per capita, Total Material Footprint (MF)(kg per US\$) and MF per capita (see Table 2).

Figure 2.11 Indicators for SDG 12.2 (Schandl, et al., 2016, p. 15)

	1970	1990	2010	Annual Growth 1990 - 2010
Total direct material input (×1000 tonnes)	2951	3771	5757	會 2.1%
DMC per capita (tonnes)	10.1	7.0	8.0	俞 0.7%
Relative to the regional average	441%	206%	84%	
Total material footprint (×1000 tonnes)		3631	6951	☆ 3.3%
MF per capita (tonnes)	o <u>c </u>	6.8	9.7	會 1.8%
Relative to the regional average		239%	119%	

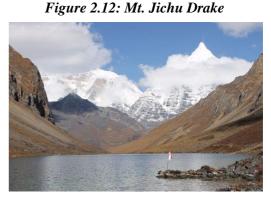
Here we see that there has been a consistent increase in all the measures associated with SDG 12.2. The DMC is of specific interest as it serves as a production indicator and includes a measurement of biomass, fossil fuels, metals and minerals used, by taking into account domestic extraction, as well as import and exports. As such, Bhutan can be seen to have increased its consumption for production activities from 1990 to 2010, however is currently below the regional average. Contrasting this, the MF serves as a consumption indicator and accounts for material inputs for all materials consumed. As seen in Table 2, Bhutan remains above the regional average for MF per capita and also shows signs of increasingly unsustainable consumption practices. Creating more sustainable consumption and production patterns will require a proactive effort to decouple economic growth from environmental disturbance.

While initiatives to address SCP are underway, challenges remain in terms of inadequate research and development capacity, specific initiatives to promote sustainable production in industries, construction, agriculture, and lack of policy and legal framework.



Goal 13: Take Urgent Action to Combat Climate Change and its Impacts

Bhutan experiences a wide range of climatic zones stretching from the humid subtropical in the south to cool alpine in the north. These climatic zones, coupled with local microclimates support a wide range of ecosystem diversity that provide various ecosystem services to sustain mountain livelihoods. As a landlocked least developed country located in a fragile mountainous environment, the impacts of climate change are often more severe than anywhere else in the world. The Himalayan region's glaciers have been melting at alarming rates, and experiencing increasingly intense rainstorms that activate damaging floods and landslides.



About 50 per cent of the Geographical area of Bhutan comprises slopes greater that 50 per cent and about 52.65 per cent of the land area lies 2600 meters above mean sea level ¹³⁴ with elevations ranging from 100m in the South to 7570 m at the Peak of Gangkar Punsum Mountain. Therefore, mountainous terrain and rapid variation in agro-ecological zone renders Bhutan highly vulnerable to climate change, climate variability and its impacts.

Bhutan's Second National Communication (SNC) indicate that temperatures are increasing and are projected to increase. Warming is observed and predicted to be more rapid in the high mountain areas than at lower elevations, with areas higher than 4000 m experiencing the highest warming rates ¹³⁵. Similarly, the annual precipitation is also expected to increase with the monsoon season predicted to become wetter, while the winters will become drier. Studies indicate that climatic range of many species will move upward in elevation from their current locations. Species will be affected differently by climate change; some will migrate through fragmented landscapes whilst others may not be able to do so¹³⁶.

According to the second national Green House Gas (GHG) inventory, Bhutan is a net sink, and the forest cover which stands at 71 per cent 137 has the estimated sequestration capacity of 6.3 million tonnes of CO_2 , compared to the total emission of only 1.6 million tonnes in 2000^{138} .

Consequent to the importance of adapting to climate change impacts, Bhutan ratified all the three Rio Conventions. At the COP 15 in 2009 in Copenhagen, Bhutan declared a bold commitment to remain "carbon neutral" and ratified Paris Agreement on climate accord in 2016¹³⁹ as stated in Nationally Determined Contribution (NDC). The country has also developed draft climate change policy.

(https://unfccc.int/files/meetings/workshops/other_meetings/application/pdf/execsum.pdf)

¹³⁴ Bhutan RNR Statistics, 2015

¹³⁵ Observation from Climate Change Impacts and Vulnerability in the Eastern Himalayas, ICIMOD, 2009 (Eklabya Sharma, Nakul Chettri, Karma Tse-ring, Arun B Shrestha, Fang Jing, Pradeep Mool and Mats Eriksson)

¹³⁶ Report prepared by the Ad Hoc Technical Expert Group on Biodiversity and Climate Change established under the Convention on Biological Diversity, a UNEP publication

¹³⁷ http://www.dofps.gov.bt/wp-content/uploads/2017/07/ForestBookletFinal.pdf

¹³⁸ 2nd GHG Inventory, National Environment Commission Secretariat (http://www.nec.gov.bt/)

¹³⁹ http://www.kuenselonline.com/bhutan-signs-paris-agreement-on-climate-change/

The country has also put in place a number relevant policies, regulations, strategies and action plans. The constitutional mandate to maintain a minimum of 60 per cent of total land under forest cover in perpetuity demonstrates clearly the core value of environmental conservation and climate change action. In the recent past, following the various conventions, Bhutan has prepared and implemented its National Adaptation Program of Action (NAPA) to strong effect.

As a result of NAPA interventions to date, over 1,000 households in 4 districts have improved access to water, leading to reduced travel time of women to fetch water, a decrease in water borne diseases and an increase in school attendance¹⁴⁰; weather forecasting and flood warning systems are improved with the installations of 99 automatic hydromet stations; the water level of Thorthomi Glacial lake was successfully lowered to reduce the risk of glacial lake outburst floods (GLOF), and critical landslides caused by increasing intensity and frequency of rainfall were stabilized, particularly along the 'lifeline' highway between Phuntsholing and Thimphu, through which Bhutan imports all essential items.

Bhutan is now working on its National Adaptation Plan (NAP), which is slated to focus significantly on the climate water impact. The Government has also put in place a National Action Program to combat Land Degradation, and the National Biodiversity Action Program. To provide better sectoral focus in terms of adaptation actions, the Ministry of Agriculture and Forests developed Sectoral Adaptation Plan of Action (SAPA)¹⁴¹ to guide its project, program and activity alignment.

Keeping with the commitment of "carbon neutral" development, Bhutan developed sectoral strategies on waste, transport, industry and the elaboration of GHG mitigation measures in three sectors of human settlement, industry and energy efficiency.

The impacts of global warming are resulting in losses and damages of crops, assets, properties and even lives, which is likely to increase in the future. There are increasing incidences of forest fires, GLOF, drying up of water sources, outbreak of crop diseases, wind storms, erratic and high intensity rainfall.

The country therefore needs investment to adapt to these changing situations. Climate change threat presents the single greatest risk of derailing decades of development gains achieved in Bhutan. There is a need to build national capacity to understand the climate change pathways more intricately among the sectors, build innovative capacity to develop local solutions and, above all the investments required are huge to deal with the climate change problem and to remain carbon neutral.

-

¹⁴⁰ National Adaptation Programme of Action II, UNDP-GEF, Impact Assessment of Community Water Harvesting interventions, 2016.

 $^{^{141} \}underline{\text{https://www.google.bt/search?q=sapa+bhutan\&oq=SAPA+\&aqs=chrome.2.69i57j0j35i39j0l3.6108j0j4\&sourceid=chrome\&ie=UTF-8}$



Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Although not immediately relevant to the landlocked mountainous country of Bhutan, our environmental conservation efforts nonetheless contribute to global efforts towards this Goal. This is evident from Bhutan's National Biodiversity Strategies and Action Plan, where specific national targets on conserving Bhutan's mountain biodiversity and landscapes and contribution to mitigating global impacts of climate change is referenced to significant contribution towards marine biodiversity and oceans, downstream.

Therefore, Bhutan's efforts through SDG 13 and SDG 15 are expected to contribute directly or indirectly to this Goal. Bhutan's conservation of upstream 'white' waters has intricate linkages to downstream 'blue' waters. Bhutan has four major river basins which flows into India and Bangladesh joining Brahmaputra, Ganges and Jamuna Rivers which ultimately flow into the Bay of Bengal.

Bhutan's mountains contribute directly to conserving the Himalayan water towers of Asia to sustain watershed and other ecosystems for downstream benefits. It is reported that there are 110 supra-snow Lake, 495 supra-glacial lakes and 637 glacial lakes with a total area of 5183.78 Ha¹⁴².

On the other hand, increased waste, particularly untreated wastewater generation, and other water pollutants will have negative impacts downstream across borders. Water bodies in urban centers, such as Thimphu and Phuentshoing, are subjected to additional pressure from automobile workshops, which generate waste oil and other effluents which flows downstream.

The National Integrated Water Resource Management Plan, 2016, was prepared to ensure water resources are protected, conserved, and managed in an economically efficient, socially equitable and environmentally sustainable manner.

The Bhutan Water Security Index (BWSI) was developed in 2015. The index has five key dimensions, each with a set of indicators. The five key dimensions are 1) Rural drinking water supply, sanitation and hygiene, 2) Economic water supply for agriculture, industries and hydropower, 3) Urban water supply, sanitation and drainage, 4) Environmental water security, and 5) Disaster and climate change resilience. Efforts are being made to implement BWSI through integration into national and local plans and programs.

¹⁴²Aquatic Biodiversity Assessment 2010. Ugyen Wangchuck Institute for Conservation and Environment (UWICE).



Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Bhutan forms part of the Eastern Himalayan Biodiversity Hotspot with 23 important bird areas, 8 ecoregions, important plant areas and wetland areas with 2 Ramsar sites¹⁴³. Forest ecosystem dominates with 70.46 per cent of the country under forest cover¹⁴⁴. The total protected forest areas in the form of national parks, wildlife sanctuaries and biological corridors constitute 51.44 per cent. The country also has rich agro-biodiversity including aquatic ecosystem consisting of rivers, lakes, marshlands and hot springs.

People are at the core of conservation efforts. Today, the area under community forest management systems is 75,705 hectares, which constitutes 2.8 per cent of Bhutan's forests benefiting 28453 household members¹⁴⁵. The Access and Benefit Sharing Policy of Bhutan (2015)¹⁴⁶ incentivizes community benefits and ensures the sustainability of eco-system services. Sustainable land management practices are under implementation across the country (*see Box 15.1*), while to sustain and improve upon the existing biodiversity resources, the Government has identified 20 targets by 2020¹⁴⁷.

Despite these successes and commitments, biodiversity in Bhutan is threatened by many direct and indirect pressures. As part of the socio-economic development, forest areas are cleared socio-economic development activities. Close to eight million cubic feet of wood is harvested each year to meet the growing needs of rural and commercial sector. Species are also lost to wildlife poaching and various forest offences. Human-wildlife conflict is on the rise affecting rural farmers. Indirect pressures such as climate change, population growth and high rates of rural poverty also pose serious threats to biodiversity.

While the degradation of soil, water, vegetation and other land resources is less pronounced, land degradation due to water erosion is of concerns particularly on agriculture land. 31 per cent of the farming land is situated on slopes more than 50 per cent, leading to accelerated loss of top soil between 6.42t/ha to 20.25 t/ha on an annual basis.

More than 34 conservation policies, legislations, regulations, plans and programs have been introduced to safeguard Bhutan's natural heritage from being overtly exploited.

Bhutan revised its National Biodiversity Strategies and Action Plan (NBSAP) in 2014 ensuring full alignment with the Global Aichi Biodiversity Targets under the UNCBD. Bhutan also revised its National Action Programme in 2013 drawing on the national objectives of environmental sustainability and the UNCCD objectives. The government is also implementing climate change adaptation and biodiversity conservation projects through various financing windows such as Global Environment Facility (GEF) to combat climate change issues in the country. Bhutan is also committed to achieve

146 http://www.gnhc.gov.bt/en/wp-content/uploads/2017/05/ABSFinalBooklet.pdf

¹⁴³ https://www.researchgate.net/publication/295088151_Biodiversity_Hotspot_of_Bhutan_and_its_Sustainability

¹⁴⁴ http://www.dofps.gov.bt/wp-content/uploads/2017/07/ForestBookletFinal.pdf

¹⁴⁵ http://www.moaf.gov.bt/national-community-forestry-conference/

¹⁴⁷ National Biodiversity Strategies and Action Plan, 2014, National Biodiversity Centre (https://www.cbd.int/doc/world/bt/bt-nbsap-v4-en.pdf)

land degradation neutrality by 2030 by implementing sustainable land management practices. Other initiatives include:

The establishment of Royal Society for Protection of Nature (RSPN) in 1987 devoted to the conservation of endangered species, ecosystem and promotion of conservation and sustainable livelihood.

The establishment of Bhutan Trust Fund for Environmental Conservation in 1992 with the objective to secure a mechanism for sustainable financing to preserve the country's rich biological diversity.

In 2017, the Government established Bhutan for Life (BFL) raising a USD 43 million transition fund to secure the permanent maintenance of Bhutan's protected areas, using Project Finance for Permanence Model and funded through multilateral and private donors and government.

Additional efforts are underway to define investment in biodiversity conservation and climate change; identify financial needs and gaps; identify resource mobilization challenges and opportunities including potential revenue streams; and expand the traditional boundaries of development finance to consider the private sector, and other partners, in line with the blended finance vision of Agenda 2030.

Box 15.1: Sustainable Land Management Project (SLMP)

The Royal Government has prioritized investment in sustainable land management as one of the means to protect and manage biodiversity and ecosystem services in Bhutan. A number of dedicated projects are currently under implementation, including by the National Soil Service Center at Jarey and Thangrong Gewogs in Lhuentse (Eastern Bhutan). The projects were initiated in 2015 and financed by Bhutan Trust Fund for Environmental Conservation (BTFEC). With resource outlay of Nu. 11.96 million, the project aims to promote and implement sustainable land management (SLM) practices and agro forestry principles to enhance rural livelihoods in the two Gewogs.

As of July 2017, 337 households have benefitted from SLMP interventions that include development of SLM plan, training of farmers and supply of farm tools. SLM plans were developed for 10 Chiwogs for three years. Hands on training on Napier hedgerow establishment and stone contour bund construction in dry land were conducted and 12 acres of landslide sites have been stabilized. The farmers have begun to generate income from sale of Napier slips, and fodder availability have been enhanced for farmers besides additional benefits such as ease of working and more productive use of time.

The above case study indicates that SLMP interventions are proving to be beneficial in terms of combating land degradation and enhancing the livelihood of rural population.



Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

2018 marks the 10th anniversary of the Constitution of the Kingdom of Bhutan which was enacted on 18th July 2008. This moment in history established Bhutan as a democratic constitutional monarchy, with the separation of powers between the executive, legislature, and Judiciary, each independent of the other. Bhutan's democratic transition, however, did not happen overnight. In 1953, the Third King His Majesty Jigme Dorji Wangchuck established the National Assembly (Tshogdu) to help improve good governance. Since then, the nation has undertaken a succession of modernization and democratization initiatives, which culminated in the devolution of full executive powers to an elected Council of Ministers by Royal Decree in June 1998.

Since the promulgation of the Constitution and introduction of a democratic way of governance in 2008, notwithstanding the short time that has passed, a transformation in governance institutions in Bhutan has occurred. The Constitution guarantees judicial independence, two houses of Parliament, the Office of the Attorney General, and a system of mediation at the local level. Bhutan held two national elections and it enjoys a harmonious and peaceful society reinforced by policy and legislation such as the Child Care and Protection Act (CCPA), Domestic Violence Prevention Act 2013 (DVPA) and the Penal Code Act of Bhutan 2011. Public hearings are now a routine feature in Bhutan's Parliamentary affairs, with a system of virtual zomdu in place to better connect Members of Parliament with remote communities through video conferencing facilities. The second review of laws is underway to eliminate duplication and ensure harmony with the Constitution.

Bhutan was ranked 26th out of 180 countries and territories in the 2017 Transparency International Corruption Perception Index; and to counter money laundering and financing of terrorism, the Government adopted the Anti-Money Laundering and Countering Financing of Terrorism Act in 2017. A Government Performance Management System is in place to enhance accountability and help ensure the effective and efficient delivery of public services by the civil service. Bhutan's Government-to-Citizen Project, under the direction of the Prime Minister's Office, is designed to harness technologies and innovation to enhance access to services, with 155 services now online and 19 mobile applications in place.

These investments in good governance are illustrative of Bhutan's positive trajectory towards achieving SDG 16. They are underpinned by the Gross National Happiness philosophy, which itself recognizes the role of inclusive, democratic governance, with responsive institutions, and access to justice for all as paramount to progress, with a clear focus on the importance of reducing vulnerabilities - a key objective in Bhutan's current, 11th FYP (see Goal 10 for information on Bhutan's Vulnerability Baseline Assessment 2016).

Change, however, is ongoing, and the process of embedding the principles of democratization in the behavior, practice, and culture of Bhutan's people and its institutions continue. According to the 2015 GNH Survey, people's perception of access to basic services has greatly improved, witnessing a 20 points increase since 2010¹⁴⁸. However, people's perception of good governance has significantly decreased for the other three out of four indicators as compared to the 2010 Survey: government

_

¹⁴⁸ Gross National Happiness Survey, 2015, Centre for Bhutan Studies.

performance (46 points); fundamental rights (11 points); and political participation (9 points). Although people's perception of government performance might be partially attributable to rising expectations of democracy, low score on political participation and fundamental rights warrant close attention. Therefore, while impressive progress has been achieved to consolidate democracy, a number of issues require further partnership and investment. Widening the democratic space for the increasingly active participation of people in decision-making has been a government priority since the start of development activities in the country. In the 12th FYP with the SDGs mainstreamed therein, the Government aims to bring effective governance 'closer to the people' with the objective of the Plan as "Just, Harmonious, Sustainable Society through Enhanced Decentralization".

The role of civil society in advancing a rights-based approach, improving services, and encouraging participation and accountability is increasingly understood, however the perception is that their capacities, while promising, are still weak^{149.} The Government partners with national Civil Society Organisations (CSOs) to implement activities targeted at vulnerable groups of the society. The capacity of the CSOs need to be strengthened to further enhance their effectiveness.

Gaps remain in the legal and policy framework to fully protect and promote the rights of women and children, and of vulnerable groups. Steps are underway to address this, in line with 2014 recommendations of the Universal Period Review, for example on advancing the rights of people with disabilities. The National Policy for Persons with Disability is under development, with efforts being made to explore ratification of the Convention on the Rights of Persons with Disabilities. In addition, institutional and socio-cultural barriers to women's full participation in society are being addressed through the formulation of the Gender Equality Policy and the nation-wide Violence Against Women and Children studies (for more on gender based violence see Goal 5)¹⁵⁰.

The study on Violence Against Children conducted in 2016 sheds light on the situation of children and their vulnerability to violence, exploitation, and abuse. Children are still vulnerable to violence and abuse. This is particularly true for children with disabilities, children from broken homes or living with extended families, and children from low economic backgrounds. The establishment of Law clubs in schools and promotion of legal knowledge under the "Know the Law- to protect your rights" series has increased awareness on legal rights of children. The Royal Bhutan Police (RBP) has established three Women and Child Protection Units (WCPU) in the country. The Youth Development and Rehabilitation Centre added a girls' dormitory to address the needs of young girls in conflict with the law. A family and children bench was established under the Thimphu Dzongkhag Court; and several police-youth partnership programmes have been initiated since 2008 to promote social responsibility in children.

Further specialization and regulation of the growing legal profession and the establishment of a legal aid system are among the priorities of the Justice sector. At the same time, the results of the 2017 Population and Housing Census will help improve data baselining to know who is being left behind (see Goal 10).

In Parliament, the two Houses have set Strategic Plans with the vision of the National Assembly "to achieve the Kingdom of Bhutan's overarching goal of Gross National Happiness enshrined in the Constitution through an inclusive and a vibrant democracy," and for the National Council "to effectively carry out legislative, scrutiny, oversight and representational functions to fulfill the aspirations of the Bhutanese people". During the 9th session of Parliament held in 2017, the National Assembly adopted a resolution to include SDG oversight into parliamentary practice, "institutionalize Parliamentary efforts towards social equity, women's empowerment and good governance which forms the bedrock of democracy in Bhutan"¹⁵¹. The resolution included approving the Standing Committee of the National

70

¹⁴⁹ Perception Study of Civil Society, Bhutan Centre for Media and Democracy, Royal Institute of Management, 2017

¹⁵⁰ Violence Against Children report, 2016, and NCWC-UNDP Violence Against Women study, 2017/8

¹⁵¹ Proceedings and Resolutions of the National Assembly of Bhutan, May 3 – June 20 2017, http://www.nab.gov.bt/assets/uploads/docs/resolution/2017/9thSessionEng.pdf

Assembly to engage on SDGs and allotting one day sitting during every parliamentary session to deliberate on SDGs.

In addition, the two Houses identified areas for further investment in strengthening institutional and management capacities of their respective Secretariats, improving Members' legislative capacities with the continued strengthening of parliamentary Committees for an open and transparent legislative process, and enhancing their capacities to represent and effectively communicate with the public and constituencies; and for the National Council, strengthening its image as a non-partisan chamber.

Box 16.1: Bhutan's first Justice Sector Strategy

Traditional Bhutanese legal structures have had a long background, primarily based on Buddhist natural law and on *Zhabdrung Ngawang Namgyal's* Code (completed in 1652), and this serves as the foundation of the contemporary Bhutanese legal system. Since the 1950s, the development of the contemporary legal and judicial sector has advanced significantly. 2015 saw Bhutan's first law school – the Jigme Singye Wangchuck School of Law open its doors, while 2017 saw the establishment of a Bar Council and Bar exams to help enhance the quality of legal services available in Bhutan.

As Bhutan's justice sector continues to grow in size, complexity, and relevance, the Constitutional guarantees for an independent judiciary is not adequate to sustain coherence and momentum in justice sector development. Increased international exposure, training, and specialization have led to a growing awareness of the need to administer justice more effectively and in accordance with international rights and norms, and in a way that tackles inequalities and targets support to vulnerable groups such that noone is left behind (*see Goal 10 on vulnerable groups in Bhutan*). At the same time, with Access to Justice as a new national priority in the 12th FYP – in line with SDG 16 -- the focus on institutions' capacities to deliver results is set to intensify. It is within this dynamic context that the justice sector in Bhutan operates¹, and against this backdrop that the sector, with the support of development partners, developed its first Justice Sector Strategy in 2018.

A strong, responsive, and inclusive justice sector has a wider influence on society and the success of national development goals. In this context, the Gross National Happiness Commission has identified the justice sector as contributing directly to three¹ of the nine *Gross National Happiness Domains*, namely *Psychological Well-being, Time Use, and Good Governance*, where the latter evaluates people's perception of governmental functions and public service delivery, explores people's levels of participation, and considers their assessment of various rights and freedoms.

Bhutan's first Justice Sector Strategy is a high-level framework to guide coordinated, integrated and flexible sector-level development. Its objective is to define a roadmap for justice sector reform and development so that justice institutions can provide more accessible, inclusive, accountable, responsive, and quality services to all as also stated by SDG target 16.3: "promote the rule of law at national and international levels and ensure equal access to justice for all". The Strategy is the product of close collaboration between the institutions of the justice sector, comprising the Judiciary, the Office of the Attorney General, the Royal Bhutan Police, the Anti-Corruption Commission, and the Bhutan National Legal Institute, with the close engagement of relevant stakeholders. Its vision, mission, and goals are set out as follows:





Goal 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development.

SDG 17 is about fostering various implementation mechanisms that are essential for achieving 2030 Agenda for Sustainable Development. Multilateral agreements and regulatory frameworks, international conferences and cross-border economic initiatives which forge partnerships in terms of strategy, trade, policy coherence and commitment, as well as technical expertise and capacity building are critical for the meaningful progress of 2030 Agenda for Sustainable Development.

Bhutan is well positioned to be an important contributor to the "global partnership" called for by Goal 17, and places strong emphasis on multilateral cooperation. In brief, through the United Nations Sustainable Development Partnership Framework (UNSDPF), the Royal Government of Bhutan and the United Nations Country Team in Bhutan are working toward fostering "*Just, Harmonious and Sustainable Society through enhanced Decentralization*" in the 12th FYP of Bhutan. Details of Bhutan's position and policies are provided under Section IV – Means of Implementation.

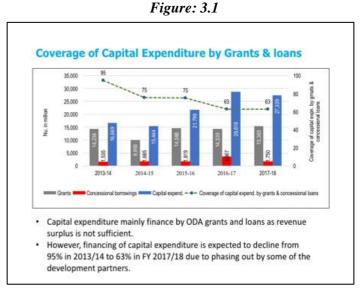
PART III: MEANS OF IMPLEMENTATION

Financing

Financing is a critical component in ensuring the success of the 2030 Agenda for Sustainable Development. Given that the SDGs are highly intertwined with GNH and thereby with the socioeconomic development pursuit of Bhutan, the resources determined for the respective plans during the SDG period is deemed to form the significant portion for SDG financing.

Domestic Resources

Bhutan's five-year plan financing thus far have been sourced mainly through ODA and domestic resources. With prudent fiscal management, the Royal Government is able to finance up to 64 per cent of its development expenditure through domestic revenue. Domestic resource mobilization is given the highest priority as manifested through the 11th FYP's objective of selfreliance. Self-reliance is interpreted as 'the ability to meet all our national development needs as articulated through five year plans by 2020'. Some of the efforts put in place to mobilize resources from domestic sources are



broadening the tax base including green tax and sales tax on vehicles and fuels, rationalization of recurrent expenditure, enhancing efficiency of state owned enterprises and fostering public private partnerships. Other financial instruments such as bonds and capital market are also explored to supplement financing of SDGs.

Bhutan is also implementing the Bhutan for Life program, an innovative green financing mechanism to augment its resource requirements for conservation.

Resource requirements for implementing the 12th FYP has been estimated. Tentative fiscal projection for the 12th FYP shows a gap of Nu. 24 billion approximately, which is about 2 per cent of GDP.

Mindful of the rising level of debt, the Royal Government adopted a comprehensive Public Debt Policy in 2016 to proactively guide its investment and ensure that financing decisions are prudent and public debt is maintained at a sustainable level. The need to have a public debt policy is also underscored as the country is almost graduating from LDC status, with concomitant decline in Official Development Assistance (ODA). Effective debt management is of paramount importance in ensuring that debt financing is sustainable and contributes to the economic growth of Bhutan.

Official Development Assistance (ODA)

ODA funds about 34 percent of Bhutan's development programs, and Bhutan has been effectively utilizing ODA to the maximum benefit. With sound governance and conservation policies in place, Bhutan has been successfully implementing international finance. As Bhutan sets to graduate from LDC by 2023, the 12th FYP, as the transition plan for graduation will require continued ODA. Bhutan also needs to develop a clear strategy for mobilizing ODA after 2023 in order to keep up its effort towards realizing the SDGs.

There is likely to be a significant financing gap for meeting some of the SDG targets although the resources needed to achieve the SDGs are yet to be estimated. More importantly, there is need to carry out needs assessment of total resources required to achieve the 2030 Agenda for Sustainable Development.

Foreign Direct Investment (FDI)

Other than ODAs, the 2030 Agenda for Sustainable Development also places due emphasis on additional financing scopes from multiple sources such as FDI, remittances and South-South Cooperation. Despite enormous efforts made in attracting FDIs through policy reforms and provision of incentives, Bhutan has not been very successful in attracting global investors. In 2015, the FDI net inflow into Bhutan was reported to be only 0.4 per cent of GDP. The net FDI inflow per capita in Bhutan is even further behind the average level of South Asian countries, LDCs and Asian LDCs. However, efforts are underway to improve ease of doing business and creating a favorable investment climate by investing heavily on infrastructure, energy, transportation and G2B services.

Statistical capacity

Access to high quality and reliable data is crucial for measuring, monitoring and reporting development progress on the SDGs. In fact, a significant level of data disaggregation will be required to meet the ambitious principle of leaving no one behind. Bhutan has successfully conducted its Population and Housing Census in 2017. This will provide comprehensive and reliable data the SDGs. A comprehensive Data Ecosystem Mapping has also been carried out which has identified issues and recommendations to improve management and use of data and statistics. On institutional front, the National Statistics Bureau (NSB) is the main statistical agency and custodian of official statistics. All ministries and Dzongkhags in Bhutan are manned with at least a statistical officer. Different agencies produce different data. For instance, data on employment is produced by Ministry of Labour and Human Resources (MoLHR) and NSB produces national accounts data. NSB also relies heavily on data produced by other agencies to produce aggregate data at national level. However, Bhutan needs to consolidate the existing efforts to ensure availability of accurate and timely data for effective evidence based decision making and reporting.

An in-depth examination of all the indicators of 17 goals reveals mixed results on indicator adoption status and data availability. Data are available for most indicators related to health, poverty, education and employment; but for other goal areas such as energy, infrastructure and governance data is scarce.

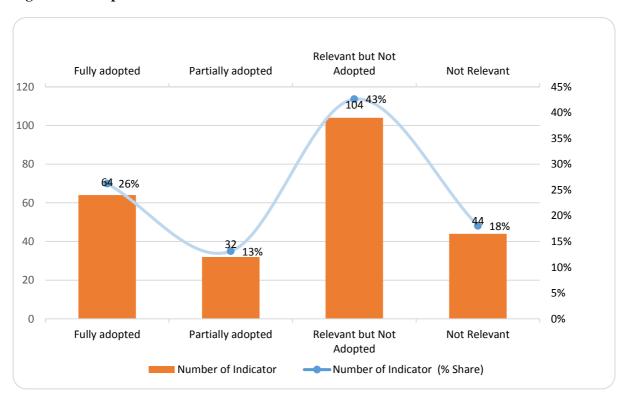


Figure 3.2: Adoption of SDG Indicator in Bhutan

Of the 244 indicators, 64 indicators (26 per cent) are fully adopted and 32 (13 per cent) partially adopted. About 104 (43 per cent) of indicators are relevant but not adopted and rest 44 indicators (18 per cent) are not relevant to Bhutan's context.

In terms of data availability for SDGs, data is available for 84 indicators (34 per cent), partially available for 66 indicators (27 per cent), and there is no data for the rest 94 (39 per cent) of the indicators.

While capacity development efforts in support of the MDGs led to considerable improvements in terms of data quality and

39%

27%

Available Partially available Not Available

Figure 3.3: SDG Data availability

availability in Bhutan, challenges remain in terms of coordination. Limited communication and coordination within national statistical systems is a major source of data problems. The lack of coordination among national data producers can result in reporting inconsistent or contradictory information to international statistical agencies. Different sources produce different data because the underlying definitions and operational contexts vary. Using different sources also means that data are updated irregularly, and the reference periods may differ. Therefore, improving coordination between line ministries and NSB is a priority.

The NSB and UN Country team have recently carried out Data Ecosystem Mapping in Bhutan to identify gaps in data required for the 12th FYP and for the SDGs. The mapping exercise concluded that Coordination is one of the key issues that constrains the data ecosystem particularly given the decentralized nature of the national statistical system. The mapping exercise also found the need to upgrade human resource capacity at all levels of government, particularly at local government level, and the need for capacity development with more predictable and adequate financial resources.

Partnership for Development

The Royal Government recognizes the significance of the role of partnership with multiple stakeholders including the international community, private sector, civil society and the local governments in achieving the 2030 Agenda for Sustainable Development. The government has been raising awareness and seeking cooperation from all sectors including the private sector and CSOs to drive SDGs. This includes promoting the roles of community, civil society, and the private sector in contributing to national sovereignty, prosperity and sustainability through development plans and policies. The guideline for preparation of 12th FYP highlights the importance of "Triple C" – Coordination, Consolidation and Cooperation. The Triple C framework is about mobilizing collaborative efforts between public and private sectors, communities, civil society and academia in order to enhance the country's development in various aspects including the development at community level.

Furthermore, the role of private sector and CSOs in socio-economic development will inevitably become greater. Hence, strong collaboration with entities outside the government in terms of creating enabling environment for business and support to CSOs is considered central to Bhutan's development strategy.

Likewise, Bhutan also remains positively positioned in strengthening cooperation in areas of mutually beneficial technical and socio-economic areas with other development partners. Of particular significance to the future of our development will be strengthening regional cooperation, particularly in the context of trade, transit, and energy cooperation in South Asia.

Science, Technology and Innovation

Science, technology and innovation is an important means of implementation of SDGs. The 12thPlan places strong emphasis on enhancing productive capacity of the economy through upgrading technology, advancing research and innovation capacity in key sectors and industries. It also stresses on environment-friendly industrial development practices and creativity and innovation to promote value addition in the manufacturing process. Bhutan is currently working towards establishment of a Research Endowment Fund in the 12th plan.

Monitoring and Evaluation

The Government considers monitoring and evaluation as necessary development management measures for effective implementation. Their success and effectiveness are contingent upon having a good plan with measurable indicators and targets underpinned by a sound theory of change.

Recognizing this, Bhutan follows a results oriented planning approach based on the principles of theory of change in formulating its five year plans and programs. On an annual basis, the five year plans and programs are translated into annual performance objectives with measureable performance targets at agency level which are further cascaded down to activities for individual civil servants in their work plans.

Alignment of aspirations, actions and resources is considered key to ensuring effective delivery of results of plans and programs. Hence, annual budget is allocated as per the annual performance objectives of implementing agencies. Upon approval of the performance objectives and budget, annual performance agreements are signed between the Prime Minister and respective heads of agencies including the local governments.

Monitoring and evaluation is based on clearly formulated five year plans and programs and agreed annual performance targets. The monitoring and evaluation of SDGs shall be conducted in a manner that is harmonized with the monitoring and evaluation of the Plan to avoid duplication of efforts. GNHC will be the apex body for monitoring and evaluation of the SDGs.

The SDG indicators and targets are integrated into the national, agency and local government key result areas and their KPIs. Since the SDGs will be implemented through the respective five year plans, monitoring and evaluation of NKRA, AKRA and LGKRA KPIs will be carried out following the Royal Government's Monitoring and Evaluation (M & E) system.

The national M&E system framework, depicted below, lays out the institutional set up and procedures required for effective monitoring and evaluation of development plans and programs. It also provides an integrated framework within which the management information systems of Planning, Budgeting, Expenditure Management and Performance Management are deployed to function seamlessly as a unified system, automating work flow processes and producing reports for decision making. As per the M&E system, NKRAs are reviewed in the middle of a FYP period and at the end of the FYP, while AKRAs, LGKRAs and program outputs are monitored annually through the Government Performance Management System (GPMS). The Royal Government ensures that the national M&E system meets the monitoring and reporting requirements of the SDGs.

Level of M&E What to monitor/evaluate Who shall monitor When to monitor Five Yearly, Mid Term, Annually National M & E System (GPMS, Planning, Budgeting, Expenditure Management, MaX) Agency and LGs AKRAs/LGKRA Cabinet, GNHC, Annually Annual Performance Ministry of Finance, Ministries, Agencies, Targets and KPIs LGs. Annual, Agency(Ministry, Agency, Annual Activities, Cabinet, GNHC, Semi-Annually Dzongkhag) Budget and Ministry of Finance, Quarterly, Regularly Expenditure Ministries, Agencies, Dzongkhags, PPDs, DPOs RCSC, Ministries, Monthly, Quarterly, Individual Civil Servant Individual Work Plans Agencies, Dzongkhags, Semi-Annually, HRDs, HROs Annually

Figure 3.4: Monitoring and Evaluation Framework

Results at outcome and impact levels of FYP programs, and national policies are subject to terminal evaluation. Evaluation of programs and policies shall be carried out in line with the evaluation procedure laid out in the national evaluation protocol and guidelines.

PART IV: THEMATIC ISSUES TO BE ADDRESSED

This section examines the immediate, medium, and long-term thematic issues with cross-cutting implications faced by Bhutan. In identifying the national priorities of the 2030 Agenda for Sustainable Development, the report assesses the outlook for sustainable development based on the progress made thus far in terms of the three dimensions of SDG - economic, social and environmental agenda.

Building economic resilience

Bhutan met the criteria for graduation for two consecutive triennials review – 2015 and 2018-illustrating developmental advancements, resilience and prospects in addressing the post-graduation opportunities. However, while the country has achieved impressive gains in 2 of the parameters for graduation, namely GNI per capita and Human Assets Index (HAI), overcoming economic vulnerability continues to be a major challenge.

Hydropower continues to be the main driver of the economy constituting 16 per cent of GDP and 30 per cent of revenue¹⁵². On the external front, imbalances in the economy persists with a current account deficit of 31.2 per cent of GDP that continues to be financed primarily by aid flows and hydropower related inflows. While the overall unemployment rate of 2 per cent is relatively low, youth unemployment rate of 11 per cent in 2016 and its increasing trend is a pressing challenge. The Hydropower sector cannot be a sustainable source of job creation to absorb the growing youth workforce. If left unaddressed, economic vulnerability stemming partly from slow progress of change in the production structure and export base of the national economy, will continue to be an obstacle to the developmental trajectory in the post-graduation period. Bhutan faces significant challenges in diversifying its economic base mainly because of the inherent constraints associated with being landlocked and small population.

Reaching the unreached and addressing last mile challenges

Positive picture emerged on social conditions by the end of MDG era. However, deeper issues remain behind statistical averages and aggregations in some social condition.

Bhutan managed to significantly reduce the number of people living in poverty in the MDG era (2000-2015). The percentage of people living below national poverty rate was reduced from 23.2 per cent ¹⁵³ in 2007 to 8.2 per cent in 2017. While the progress on poverty reduction has been commendable, Bhutan is confronted with the last-mile challenge of eradicating poverty in all its forms. Additionally, it is of paramount importance for Bhutan to ensure vulnerable section of the population do not fall back into poverty due to disaster or any other external shocks.

The infant mortality rate was reduced from 60.5 deaths per 1000 live births in 2000 to 30.0 in 2012¹⁵⁴. The maternal mortality rate also significantly dropped from 255 deaths per 100,000 live births in 2000 to 86 in 2012. Similarly, the proportion of births attended by skilled health person increased by more than threefold from 23.7 per cent in 2000 to 74.6 percent in 2016. However, due to changes in lifestyle and dietary habits, non-communicable diseases (NCD) such as cardiovascular diseases, cancer, respiratory diseases and diabetes have risen considerably causing 53 per cent of all deaths. The recent emergence of cases such as crime, substance abuse and suicide/mental health problem among the youth is also a growing concern. On the other hand, Bhutan faces the challenge of meeting increasing medical cost and sustainability of free health care.

Adjusted Net Primary Enrolment Rate (ANER) is 98.8 per cent in 2017. Similarly, the Gross Enrolment Ratio (GER) for basic (Class PP-X) is 108.8 per cent and GER for secondary (Class VII-XII) is 95.7 per cent for the same year. However, enrolment in vocational and technical education is still dominated by male with only around 35 per cent female in 2017. Similarly, female enrolment at the tertiary level

-

¹⁵² Annual Report 2015-16, Royal Monetary Authority (RMA)

¹⁵³ Bhutan Poverty Analysis, National Statistics Bureau, 2012

¹⁵⁴ 2012 National Health Survey, Ministry of Health, 2014

is slightly lower than male, with female making up to 45 per cent of the total enrolment. In addition, the concerns about the quality of education still persists.

Sustaining environmental resilience

The country today has 70.46 per cent of total land area under forest cover and more than half of the country's landscape (51.40 per cent) is under protected areas. Nonetheless, the state of Bhutan's environment has been changing over time due to population growth and economic development. The conversion of arable land and forests into other land uses is increasing. The pressure is mostly from accelerated construction of farm roads, electricity transmission/distribution lines, industries and urbanization. There are also emerging signs of forest degradations within the 70.46 per cent forest cover area.

Although Bhutan has one of the highest per capita water resource availability in the world with 94,500 m3/capita/annum, geographical imbalance and temporal distributions are leading to experience of shortages in local areas. Adverse impact of climate change is further aggravating water problem for agriculture. Water quality is deteriorating in and around the urban areas.

Air pollution is becoming one of the emerging issues that has serious risk to human and environment health. Air quality is deteriorating, particularly in urban centers, industrial area and along the southern border of the country. Emission of greenhouse gases, which contributes to global climate change, is also on the rise.

Waste management is a major emerging environmental issue for Bhutan. Poor waste management practices threaten public health and natural environment.

PART V: THE WAY FORWARD

Moving forward, we consider 2030Agenda for Sustainable Development as an important guideline for sustainable development enabling us to redesign our own development journey in a sustainable manner. Beginning with the 12th plan (2018-2023), the Royal Government is determined to undertake the following key actions immediately to implement the SDGs:

Policy Action 1: Enhancing Productive Capacity of the Economy

Enhancing productive capacity of the economy is the most crucial SDG enabling factor. The key economic question facing Bhutan over the medium-term is whether it will be able to diversify exports into value-added goods and services, with increased participation of vibrant, small and medium enterprises. This is important for SDG implementation because reforms to promote new sources of economic growth assume added urgency for enhanced resilience. Innovation, entrepreneurship development, and job creating industrialization (SDGs 8 and 9) all improve equality, and enhanced equality tends to improve efficiency, leading to and reinforcing sustainable growth. Furthermore, manufacturing through its spillover effects is perhaps the most important dynamic source of technological progress, trading opportunities, and SDG implementation.

To realize the above, numerous hard and soft infrastructure development measures have already been adopted by the RGoB in the ongoing 11th FYP to enhance productive capacity. Completion of the ongoing infrastructure developments such as four industrial parks, expansion of national highways and construction of dry ports remain urgent in the short-term. Moreover, given the potential of universal and affordable access to ICT in not only raising productivity and competitiveness of SMEs, but also in bolstering the achievement of social inclusion as envisaged throughout the SDGs, solving the redundancy issue and connecting the unconnected population could lead to more inclusive and equitable socio-economic development. This is important because notwithstanding the increase in mobile network coverage (97 per cent of households have access to mobile phones in 2017), access to broadband internet remains low (58 per cent of households have Internet connection in 2017).

Revision of Economic Development Policy (EDP) in 2016 was the stand-out policy measure undertaken in this regard. Moving forward, effective implementation of EDP in a structured manner supported by adequate resources will underpin Bhutan's capability to unlock its economic potentials. While the EDP offers broad-based sector approach, it may not automatically result in diversification towards the industries and products that have the potential to succeed. To fill this gap, it is critical to establish a concrete strategy and process to identify and develop industries where policy actions are most likely to make a difference – a process whereby the Government and the private sector jointly develop the required supportive policies, incentive structure and institutional arrangement to divert investments towards high potential areas. This process is expected to enable the government to adopt both macro and micro tools necessary to address the binding constraints faced by diverse industries.

In the 12th FYP, Bhutan aims to expand investment into tourism, organic agriculture, and CSIs. Initiatives are also being undertaken in establishing entrepreneurship ecosystem to provide platform for innovation to generate green jobs with participation of corporate and private sectors.

Policy Action 2: Rethinking Human Capital Development

As discussed under previous section, on social indicators, Bhutan performs quantitatively well on average. However, important qualitative issues need to be addressed-last mile challenges to eradicate poverty, addressing needs of vulnerable groups, improving health outcomes, enhancing learning outcomes and matching the demand and supply of skills, especially for youth, in addition to enhanced working conditions. As discussed above, gainful employment is at the heart of poverty reduction and social inclusion, therefore such efforts should be underpinned by strategies which align economic, employment, environmental and social policies. This includes the need to create conditions for supporting job creation capacity, especially among SMEs.

Key to achieving the SDGs is human capital. Bhutan's population today is increasingly urbanized, young and educated. The youth literacy rate has reached 93 per cent in 2017 with half of the Bhutanese are below 28 years of age. Bhutan needs to take full advantage of this demographic dividend. Initiatives to improve learning outcomes, inculcate innovative and creative mindset, and enhance employability will be undertaken.

Policy Action 3: Mobilizing Resources for Environmental Vulnerabilities

Growing demands for water, energy, and food, in addition to climate change induced disasters which are increasing in frequency and intensity, exacerbate the already vulnerable ecology. Land suffers from high degree of degradation, and with increasing temperatures and advancing desertification, crop yields may decelerate. This will affect food production in Bhutan. At the same time, climate change will threaten water, a resource fundamental for agriculture and hydropower. Considering this situation and the risks represented by climate change, countries are expected to participate in the reduction of global GHG emissions as a means of favorable policy: enhancing energy efficiency, reducing air pollution, and improving quality of life for all.

While Bhutan has already launched important declarations and issued domestic policies, legislations and strategies concerning the promotion of renewables and measures to mitigate and adapt to climate change, significant shift in mobilizing domestic and external resources and attracting international investors is required. For instance, despite huge area of Bhutan's land under degradation (0.54 per cent of total area), financial support to agriculture, particularly to land management has been limited. The total budget allocated to the RNR sector varied between 9-14 per cent of the country's total budget from 2008-2014. In the 11th FYP, the budget allocated for Sustainable Land Management (SLM) activities is only 1 per cent of the budget of the RNR sector. Without consistent financial resources in place it will be very difficult to achieve at least four of the targets under SDG 15 (Land), namely targets 15.2, 15.3, 15.4 and 15.5. Because of the centrality of land to other dimensions of development, Bhutan's challenge in achieving SDG 15 will also significantly impede, the achievement of other SDGs – mainly SDG 6, SDG 8, SDG 9 and SDG 11.

Competing priorities for the government such as education, healthcare, poverty, road, hydropower and tourism among others makes it increasingly difficult to meet the resource requirements. Therefore, exploring innovative means of financing and mobilizing international support measures are critical to manage challenges posed by environmental vulnerabilities.

Operational Priority Actions

Harmonization of Policies: With the formulation of a number of public policies to address various needs and problems, inadvertent conflict among the policies have also cropped up. Such incoherence and conflict among policies hinder actual implementation on the ground. Against this backdrop, thorough harmonization of policies that have relevance to SDG implementation will be carried out.

Improving Data and Statistics Management: Availability of accurate data in a timely manner is critical to effective planning, monitoring and evaluation of SDGs. Assessment of SDG indicators and targets reveals data gaps in terms of adequacy, timeliness and quality. In order to improve data generation, collection, analysis and dissemination, strengthening of relevant policies and legislations, improving coordination and strengthening human resource competencies will be considered.

Improving Awareness on SDGs and Ownership: While there is strong integration of SDGs in the national plans and policy frameworks, inadequate level of awareness and capacity constraints to align sector and agency plans and programs to SDG targets and indicators have been highlighted. More awareness and sensitization on alignment of plans and programs to SDGs and localization of SDGs to sector, agency and local government needs will be conducted.

Developing Financing Strategies: In order to ensure successful implementation of SDGs, a financing needs assessment that establishes estimated cost of SDG implementation will be carried out. Based on the needs assessment, a strategic framework for resource mobilization that identifies potential financing sources including domestic, ODA and other means of financing will be developed.

Improving Stakeholders Coordination: A critical factor that determines efficiency and effectiveness of SDG implementation is a strong coordination among all the stakeholders -Government, Private Sector, Non Governmental Organizations, Academia and Citizens. Following the 12th plan principle of Coordination, Cooperation and Consolidation (CCC), appropriate measures will be undertaken to strengthen partnership and coordination among all stakeholders.

Bhutan will continue its efforts to strengthen international partnership so that all countries can achieve SDGs together. This is undertaken through North-South, South-South and triangular cooperation, particularly in exchanging good practices and providing technical assistance for countries. As a least developing country and a landlocked developing country, continued support of development partners is of paramount importance without which it will be very difficult for Bhutan to achieve the noble targets of the SDGs.

CONCLUSION

The Royal Government of Bhutan has decided to participate in the VNR at the 2018 HLPF as part of our commitments to engage in the global process of sharing knowledge, experiences, and best practices as we have just kicked off the implementation of the ambitious 2030 Agenda in Bhutan. Bhutan expects that the HLPF platform will be instrumental in developing an effective mechanism for supporting our shared vision for overcoming the structural as well as the goal specific challenges that the 2030 Agenda offers

This report captures the progress of our development journey towards the implementation of the 2030 Agenda for Sustainable Development, identifies challenges, and informs our plans, strategies and areas of partnership to move forward The review of the implementation of the 2030 Agenda for Sustainable Development also provides an opportunity for the government as whole, and relevant agencies to take stock of the current situation and plans as well as raising awareness and promoting understanding regarding SDGs among public and private agencies, civil society, academia and communities.

This report points out policy related challenges as well as operational challenges in achieving the SDGs. Economic diversification, last mile challenge of poverty reduction, quality of education, rise of NCDs and threats posed by climate change amid declining ODAs are some of the prominent challenges faced by Bhutan. At the operational level, data gaps, inadequate level of awareness and ownership of SDGs at implementing agency level, lack of coordination and financing needs estimates for implementation of SDGs were some of the challenges that need to be addressed.