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Policy Gaps and Needs Analysis for the Implementation of NDCs on Adaptation and Loss and Damage in Bangladesh, Nepal and Sri Lanka.

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2. Executive Summary

Nepal's ecosystems, population, and economy are highly vulnerable to climate change. Despite the country's insignificant contribution to global greenhouse gas emissions, it is suffering disproportionate climate change impacts across all sectors in the form of rising temperatures, erratic rainfall patterns, droughts and prolonged dry spells, forest fires, pests, diseases, floods, and landslides.

Key policy documents have been created before the new 2015 constitution and restructuring of the country's administration into a federal republic. Many laws and policies are being amended by parliament while other national and sectoral policies have been drafted within the new system. Nepal's Nationally Determined Contributions and the roadmap for their implementation are currently undergoing a review to adapt them.

Nepal has submitted its NDCs to the UNFCCC in October 2016 and is trying to mainstream climate change into all sectors. The NDCs contain fourteen targets mostly taken from existing sectoral policies, including the formulation of a NAP, which is currently ongoing, and the implementation of a climate-friendly local governance framework, which is currently under revision.

The NDCs cover three sectors mainly related to adaptation and loss and damage (forestry, agriculture and climate-induced disasters) as well as three sectors mainly related to mitigation (renewable energy, transportation and solid waste management). The NDC targets aim at different timeframes from 2020 to 2050, and progress has been made toward several

of them. Nepal has seen successes in the adaptation sectors but currently lags behind in renewable energy and transportation. There is no solid information available on the solid waste management sector.

The government of Nepal plans to submit its revised NDCs to the UNFCCC by end of 2020. Among the gaps identified is a lack of explicit targets for the climate-induced disasters sector; the missing adaptation sectors of water resources, public health, urban settlements and infrastructure; the lack of a solid MRV mechanism, financing plan, or implementation plan for government, private sector and development partners; the lack of a tangible GHG emission reduction target; the lack of a coordination mechanism between different agencies and entities; and the misalignment of some sectoral targets with the national priorities, especially in the forestry and agriculture sector.

The revised NDCs need to be formulated in a participatory, gender-sensitive and inclusive way with all relevant stakeholders at the table, including development partners and the private sector. Furthermore, they have to align with Nepal's long-term development priorities and the seventeen SDGs to work toward sustainable and climate-friendly socio-economic development.

Nepal is on the right track, but the new NDCs and the NAP need to address the above-mentioned gaps and make sure that they have a strong and robust interlinkage with other national and sub-national policies as well as the country's development goals toward becoming a middle-income country by 2030.

3. Introduction

Nepal's diverse topography, fragile ecosystems, and extreme poverty makes it susceptible to the negative impacts of climate change (Oxfam, 2009).

Geographically, Nepal is divided into three regions: Terai (plain areas), hills, and mountains. The altitude varies from 60 m to 8848 m (Mt. Everest) above mean sea level within 150 km from north to south (DFRS, 2015). It falls under a sub-tropical monsoon climate zone. The average annual rainfall of the country is 1,530 millimetres (mm). Annual rainfall generally increases with elevation up to 3,000 m, and then declines with elevation and latitude, and from east to west (GoN, MoPE, 2017). Agriculture remains the country's principal economic activity, employing about 63% of the total population (GoN, MoE, 2010) and contributing to 31.2 % of the total Gross Domestic Product (MoF, 2016). The 2011 Nepal Living Standard Survey (NLSS, III) showed that in Nepal, 28% of all household income comes from agriculture, 37% from non-farm enterprises, 17% from remittances, and 16% from individual housing consumption (CBS, 2011).

Nepal has experienced consistent and continuous warming and extremely volatile rainfall patterns. A trend of temperature rise in Nepal is approximately 0.4 – 0.6 degree Celsius per decade, with spatial differences across the country over a period of 30 years (1976- 2005) (MoE, 2010). The mean annual temperature is projected to increase by 1.3-1.8 degrees Celsius until 2050. (MoFE, 2018). As for nationwide rainfall, there is no general trend nationwide. However, regional precipitation trends indicate a general decline in pre-monsoon precipitation in far and mid-western Nepal and a few pockets with declining rainfall in the western, central and eastern regions

(GoN, MoE, 2010). Studies show an increasing trend in the number of extreme precipitation days at the majority of weather stations (Baidya et al, 2008, Practical Action 2009). It is likely that precipitation will increase by 2-6% by 2030 and by up to 12% by 2050, with wet and dry extremes occurring much more frequently (MoFE, 2018).

Impacts of climate change are getting apparent across different sectors in Nepal. Agriculture, forest and biodiversity, water resources, urban settlements and infrastructure, public health, and climate-induced disasters are identified as key sectors vulnerable to climate change (GoN, MoE, 2010). The National Adaptation Plan (NAP) has identified tourism, and natural and cultural heritage as an additional sector vulnerable to climate change. The agriculture sector is highly vulnerable to climate change due to its sensitivity and low adaptive capacity. Its rain-fed system and dependency on cereal crops, particularly paddy, make it highly susceptible to changes in the pattern and timing of rainfall. The forestry sector is also vulnerable to climate change because the variability in temperature and rainfall has resulted in a shift in agro-ecological zones, prolonged dry spells, and increased drought incidents such as forest fires, higher incidences of pests and diseases, decline in the productivity of valuable non-timber forest products (NTFPs), depletion of rangelands, and loss of wetlands. Likewise, the increased frequency and magnitude of climate-induced disasters such as floods, landslides and drought have augmented loss and damage to life and property, caused economic losses, and led to the displacement of many families. Prolonged droughts have depleted water resources leading to scarcity of drinking water, poor

sanitation and hygiene, and outbreak of water-borne diseases. Nepal's hydroelectricity potential is seriously jeopardized as the run-of-the river power plants are susceptible to rainfall and discharge whereas storage plants are more susceptible to erosion and sedimentation. Hydropower infrastructure is vulnerable to floods, landslides, GLOFs and other disasters (GoN, MoPE, 2017).

Nepal's contribution to global greenhouse gas (GHG) emissions is insignificant. It accounts for only 0.025% of total global GHG emission while being home to 0.37% of the world's population. Energy, agriculture, industries, land use, land use change and forest, transportation and waste are key sources of GHGs emission.

The majority of Nepal's emissions are not carbon but instead consist of methane and nitrous oxide from agriculture (67% of total emissions). The energy sector consists almost entirely of hydropower and therefore only contributes 28% of GHG emissions in the form of carbon dioxide and other greenhouse gases. The agriculture sector accounts for 18,285.08 Gg CO₂ eq emission, the highest among the sectors. It is followed by energy (6,894.64 Gg for CO₂ eq) and land use, land use change and forest (12,418 Gg CO₂ eq) (GoN, MoSTE, 2014).

85% of the country's population have access to electricity in 2014 (World Bank, 2017)—the country aims and estimates to increase this number to 100% by 2030.

The Government of Nepal has initiated policy and programmatic measures to

mitigate the impacts of climate change. The National Climate Change Policy 2011 is the key policy document that prioritises adaptation to adverse climate change impacts and low carbon socio-economic development path as the two main approaches to climate change. NAPA 2010 and Local Adaptation Plan of Action Framework 2011 have prioritised mainstreaming climate change in development planning process. Many sectors such as agriculture, forest, water resources, renewable energy and disaster have embedded climate change into their respective policies. A detailed analysis of sectoral policies is presented in the later sections. Several programmes and projects are being implemented by government agencies, development partner organizations, and the private sector. Adaptation focused programmes and projects include Pilot Programme on Climate Resilience (PPCR), Nepal Climate Change Support Programme (NCCSP), Community based Flood and Glacier Lake Outburst Risk Reduction in Nepal (CFGLORR), Hariyo Ban Project and Ecosystem-based Adaptation in Mountain Ecosystem Project. Programmes and projects focusing on mitigation include National Rural and Renewable Energy Programme and Scaling up Renewable Energy projects. As a party to the United Nations Framework Convention on Climate Change (UNFCCC) Nepal has signed and ratified the Paris Agreement on Climate Change. It has submitted Initial and Second National Communication Reports and Nationally Determined Contributions (NDCs) to the UNFCCC.

4. Methodology

The research is of descriptive type and information has been collected mainly from secondary sources and key informants. Key national documents on climate change and relevant sectoral policies were reviewed during the research. Findings of the research were validated through consultation meetings and workshops. The final research paper takes into consideration the feedback and comments received from the meetings and workshops. The methodology adopted by the research is described below.

Research Approach

- **Policy Gaps and Needs Analysis:** Major sectors covered in Nepal's NDC document were reviewed. In total 8 key legal and policies documents related to 6 sectors i.e. agriculture, forest, climate-induced disaster, energy, transportation and waste management were reviewed. Besides these, key documents on climate change such as the National Climate Change Policy 2011 and NAPA 2010 were also reviewed. Coherence between the NDCs targets and sectoral policies were also analysed to identify gaps.
- **NDC Targets versus Current Status:** This approach included documentation and analysis of the present status of sectoral targets set in the NDC. Information on sectoral progress was collected from Economic Survey report published annually by the Ministry of Finance, the Government of Nepal and the annual and progress reports of the sectoral ministries, and other government agencies. The information was later validated in

consultation meetings with the representatives of the relevant government agencies.

- **Recommendations and Feedbacks:** Recommendations and feedbacks were generated from the aforementioned consultations and analysis. The government's 15th periodic development plan and Sustainable Development Goals' Roadmap document were referred to whilst making the recommendations.

Data Collection Tools:

- **Literature review:** A wide range of policy and legal documents on climate change and other related sectors were reviewed. These included NCCP (2011), NAPA (2010), Second National Communication, 14th periodic development plan, 15th periodic development plan approach paper (2019/20- 2023/24), Nepal Sustainable Development Goals Present Status and Future Roadmap (2016-2030), Nepal's National Adaptation Plan (NAP) Process: Reflecting on Lessons Learned and the Way Forward (MoFE, 2018), Economic Survey of 2017/18 and 2018/19, Forestry Sector Strategy (2016-2025), Agriculture Development Strategy (2015-2035), National Energy Strategy of Nepal (2013), Hydropower Development Policy (2001), Disaster Risk Reduction and Management Act (2017), Environment Friendly Vehicle and Transport Policy (2014), Transport Strategy (2015-2040), Environment

Protection Act (1997), Solid Waste Management Act (2011) and White Paper issued by the Ministry of Energy, Water Resources and Irrigation (2018).

- **Key Informant Interviews:** Structured interviews were conducted with senior officials of the National Planning Commission (NPC), Ministry of Forest and Environment, Ministry of Agriculture Development and the Nepal Agricultural Research Council (NARC). A list of the key informants interviewed as part of the research is listed in annex.

During the interviews, the research team noticed that many of the key informants in the ministries, who the team wanted to interview, were transferred to different agencies, hence the officials that the team met at the ministries were newly appointed and were the least informed about NDC and

UNFCCC process. The team, therefore, decided to reduce the number of key informant interviews.

- **Consultation meetings and workshop:** Two sets of consultation meetings organised to validate the findings of the research helped the team receive feedbacks and comments on the findings. The first consultation was held with development organizations working in climate change and other sectors covered in NDC. The second consultation included officials from key government ministries and agencies related to climate change. The feedback and input from the consultations helped enrich the research. A workshop will be organised to disseminate the findings of the research to wider stakeholders. Details of the consultation meetings and the workshop are attached in the annex.

5. Highlights of Nepal's NDCs

Nepal submitted its Nationally Determined Contributions to the UNFCCC in October 2016. The country aims to reduce climate change impacts through adaptation actions to protect life and livelihoods of climate vulnerable communities. It also intends to limit temperature rise to a safe level and keep the earth a liveable planet (NDCs, 2016).

As a country with only a minimal contribution to global GHG emissions, Nepal's NDCs place a focus on adaptation but still include plans to increase renewable energy production and stay on a low carbon pathway. Adaptation and mitigation targets as mentioned in Nepal's NDCs are as follows:

NDCs Related to Adaptation:

1. Formulation of NAP for post-2020 adaptation needs of the country.
2. Strengthening implementation of Environment-Friendly Local Governance Framework.
3. Undertaking scientific approaches to understand and deal with the impacts of climate change in mountains, hills, and lowlands; developing and implementing sectoral adaptation strategies.
4. Studying and understanding loss and damage associated with climate change impacts.

NDCs Related to Mitigation:

5. Formulating the Low Carbon Economic Development Strategy to promote economic development through low carbon emission with focus on energy, agriculture and livestock, forests, industry, human settlements and waste, transport, and commercial sectors.

6. Achieving 80% electrification through renewable energy sources and reducing dependency on fossil fuels by 50% by 2050.
7. Reducing dependency on biomass and making it more efficient through National Rural Renewable Energy Programme (NRREP) focusing on hydropower (mini and micro), solar home systems, solar PV, solar pumps, improved water mill, improved cooking stoves, and biogas.
8. Expanding Nepal's energy mix focusing on renewables by 20% and diversifying energy consumption pattern by 2020.
9. Increasing the share of electric vehicles up to 20% from the 2010 baseline by 2020.
10. Decreasing transport sector dependency on fossil fuels by 50% by 2050 through mass public transport and energy efficient and electrical vehicles.
11. Developing Nepal's electrical rail network by 2040 to support mass transportation of goods and public commuting.
12. Maintaining 40% of the total area of the country under forest cover while managing forests sustainably.
13. Piloting a sub-national REDD+ project to reduce about 14 million tons of CO₂-eq by 2020 by addressing the drivers of deforestation and forest degradation.
14. Decreasing the rate of air pollution through proper monitoring of air pollutant sources by 2025.

Nepal's NDCs cover both adaptation and mitigation action. As part of adaptation, the NDC has prioritised the formulation of a NAP and implementation of Environment Friendly Local Governance Framework (EFLG). The government of Nepal has started the formulation of the NAP with the

support of additional grant from the Green Climate Fund (GCF). It is one of the first countries in the world to receive NAP readiness support from the GCF and has partnered with the NAP Global Network as well. The NAP has committed to be inclusive of marginalized and disadvantaged communities, indigenous groups, youth, women, and people with disabilities and follows an integrated approach that is focused on active and informed stakeholder engagement and participation. (MoFE, 2018)

The government has introduced its ELFG framework in 2013 with the objective of promoting environmental governance at local government level and building a sustainable and environmentally friendly society. The framework, which was piloted in several municipalities and rural municipalities, has proved effective in mainstreaming environment friendly issues into local planning processes. Currently, the framework is being revised to align it with the new administrative structure of the country. For adaptation actions, the NDC has chosen two key sectors – agriculture and climate-induced disasters. Part of the proposed adaptation measures includes scientific studies to understand climate change impacts across sectors and

development and implementation of adaptation strategies. It also intends to carry out studies on loss and damage due to climate change.

Nepal's NDC has proposed to take mitigation measures with specific time bound targets, primarily in three sectors: forestry, energy and transportation. Targets set particularly in energy and transportation sectors are highly ambitious. REDD+ pilot programme is being implemented by REDD Implementation Centre under the Ministry of Forest and Environment. It aims to reduce greenhouse gas emissions from deforestation and forest degradation. The NDC proposes to undertake sustainable management of forests ensuring effective, fair and equitable benefit sharing with indigenous people, local communities, women, Dalits, Madhesis, the poor and other marginalised groups by adopting appropriate social and environmental safeguards. Likewise, National Rural and Renewable Energy Programme (NRREP) is implemented by Alternative Energy Promotion Centre (APEC) with the aim of reaching out to 1.5 million rural households ensuring their access to renewable energy technologies such as solar, micro hydro, biogas and improved cooking stoves.

6. Sectors Covered in Nepal's NDCs

Forestry: About 76% of Nepal's population depends on forests for their livelihoods with about 64% of them still using fuel wood as a major source of domestic energy (CBS, 2014). Increased temperature and rainfall variability have resulted in a shift in agro-ecological zones: prolonged dry spells and higher incidences of pests and diseases. Likewise, rise in temperature and increasing drought incidents have catalysed the sensitivity of dry landscapes to forest fires (GoN, MoPE, 2017). Similarly, a tree line shift has been observed in high altitude areas. Other vulnerability assessments include invasion by alien species, decline in productivity of valuable NTFPs, depletion of rangelands, and loss of wetlands. Communities dependent on forests and biodiversity are at high risk of exposure to climate change. Deforestation and forest fires play a vital role in GHG emissions from the forestry sector. Other factors such as a change in forest and other woody biomass stocks, forest and grassland conversion, abandonment of managed lands, CO₂ emission and removal of soil also contribute to the emissions. Emission reported from burning of forest is 16.75 Gg CH₄ (methane) and from biomass burning is 2,886.28 tons of carbon (GoN, 2018).

Agriculture: the agriculture sector involves more than 66% of Nepal's population and contributes to over one-third of Nepal's Gross Domestic Product (CBS, 2014). Nepal's agriculture is mostly smallholder production where average landholding is less than one hectare (ha) per household (MoAD, 2014). Three and a half million people, 13% of the population, are considered to be moderately to severely food insecure with respect to food grains (MoAC, 2012). This sector is highly vulnerable to climate change due to its high

degree of sensitivity and low adaptive capacity. Rainfall and other climatic factors are critical to crop yields and livestock production. More than 50% of Nepali agriculture is dependent on natural rainfall (MoAC, 2012) and the sector has been affected by floods, droughts, and erratic rainfall (Sherchand et al, 2007). Increasing temperature and extreme variability in rainfall have had major implications for the agriculture sector. Nepal's vulnerable subsistence farming economy is facing risk due to changes in the reliability of stream flow, a more intense and potentially erratic monsoon rainfall and the impacts of flooding. Besides these, decreased soil moisture has resulted in early maturation of crops, crop failures and reduced agricultural productivity. Agricultural production activities contribute directly to the emission of GHGs through enteric fermentation, manure management, rice cultivation and soil management (GoN, 2017). Total emission from Agriculture sector is reported to be 470.08 Gg CH₄ (methane), (GoN, 2018).

Climate Induced Disaster: Due to mountainous topography and diverse climatic and ecological conditions, Nepal is exposed to various types of hydro-meteorological disasters which are further exacerbated by climate change. A total of 22,372 disaster events have been recorded during the period of 1971-2015. Hence, Nepal is exposed to about 500 events of disaster annually (MoHA, 2016). Water-induced hazards are a major cause of disaster in Nepal. Annual direct costs of current climate variability in Nepal, on average, are estimated to be equivalent to 1.5-2% of current GDP/year. Extreme weather events, particularly cloudbursts, thunder and dry-spells, and the losses and damages they cause, have been increasing.

Slow onset events like drought is impacting human health. These events will have impacts on sectors such as water, agriculture and food security, forestry, health and tourism. Increased exposure combined with high vulnerability because of inadequate preparedness measures, such as early warning and weak institutional governance, have increased manifold risks of climate induced disasters.

Forestry, agriculture and climate-induced disasters are three sectors related to adaptation and loss and damage covered in Nepal's NDC. Other sectors vulnerable to climate change such as water resources, health, urban settlements and infrastructure, tourism, and natural and cultural heritage are not covered in the NDC.

Nepal's NDC has also covered the following sectors related to mitigation:

Renewable Energy: Nepal has very high potential to generate renewable energy, particularly hydropower and solar energy. Wind power and bio-energy are other potential sources of renewable energy. Ironically, production of electricity is very low, just 1,044.6 MW; out of which 990.5 MW is from hydropower, 53.4 from thermal plant and only 0.7 MW from solar plant (Economic Survey, 2017/18). About 18% of the total population has access to electricity from renewable sources. A large percentage of rural population still consume firewood for cooking, heating and other household purposes. In urban centres families rely on fossil fuels like kerosene, LPG, petrol and diesel. Renewable energy is mainly used for lighting the homes.

Renewable energy only contributes to 3.2 % of the total energy consumption (Economic Survey, 2018/19). Total Greenhouse gases emissions from combustion of fossil fuels accounts for 2,763.28 Gg CO₂ (GoN, 2018). A large part of the total energy demand is imported from India and likely coal-based, but this is not factored into the total emissions. Additionally, a recent fossil fuel pipeline has seen an increase, not decrease in fossil fuel use in the country.

Transportation: Transport is the second largest energy consuming sector in Nepal. Rapid urbanization and the sophisticated lifestyle of people has steadily increased demand for motor vehicles in Nepal. Total number of registered vehicles is above 3.5 million with average annual growth of 0.4 million. Motorcycle consists of 78.6% of the total registered vehicles. These vehicles run on petrol or diesel. The import of petroleum products from India has doubled since 2016. Total Greenhouse Gases emission from transportation sector is 914 Gg CO₂ (GoN, 2018).

Solid Waste Management: Solid waste management is an increasing problem across municipalities and cities in Nepal. Increasing volume of waste from consumption oriented urban population is a source of air and water pollution in the urban centers. Lack of proper landfill sites and technologies to dispose waste, public awareness of waste segregation and no strict enforcement have been major challenges in waste management. Waste generates methane (CH₄), one of the strong Greenhouse Gases.

7. NDC Sector Targets and Present Status

Nepal's First NDCs were drafted under pressure of time and without a detailed technical assessment or a large-scale participatory consultation process. They lifted existing targets from sectoral policies and strategies and did not conduct technology needs assessments or formulate an implementation plan beyond pre-existing ones. They also do not mention gender, special needs, the Paris Agreement, or the Sendai Framework for Disaster Risk Reduction at all, and the UN's Sustainable Development Goals only once.

As for ambition, the NDC have set some targets for as early as 2020 even though Nepal is under no obligation to do so under the Paris Agreement and the UNFCCC. On the other hand, the forest cover of 40%, had

already been achieved at the time of the formulation and is simply about maintaining the status quo.

The success in working toward NDC targets has been mixed so far. Nepal is well on track in several sectors but has yet to make strides in others: and the lack of quantified targets as well as a monitoring mechanism makes it difficult to judge progress in some areas. In a recent survey of policymakers and policy influencers, 70% expressed confidence in the country's ability to achieve its NDC goals. Only 50% thought that GHG reduction should be one of the targets as Nepal already complies with GHG targets. (Haque, Lohano, Mukhopadhyay et al., 2019)

Sector	NDCS Targets	Present Status
ADAPTATION RELATED SECTORS		
FORESTRY	Maintain 40% of the total area of the country under forest cover.	At present, forest cover is 40.4% of the total area of Nepal.
	Pilot REDD+ project: reduce about 14 million tons of CO ₂ -eq by 2020.	
AGRICULTURE	Enhance agricultural sector by adopting climate-friendly technologies and reducing climate change impacts.	Development of 13 varieties of drought and submergence-tolerant paddy, 2 varieties of high temperature tolerant maize, 7 varieties of rust resistant wheat (NARC, 2019)
		Development of Mobile Application: Benefitting 48 thousand farmers (MoAD, 2019) Agriculture insurance: Total 50,676 insurance (including crop, livestock and fishes).
CLIMATE INDUCED DISASTER	Address climate-induced disasters in the earthquake affected areas and rebuild Nepal better.	Flood forecasting service (24 hours) has been in operation which has reduced the human death caused

		by floods. (Economic survey, 2017/18)
MITIGATION RELATED SECTORS		
RENEWABLE ENERGY	Divert from energy mix and energy consumption patterns to more renewable and other economically productive sectors and achieve 80% electrification through renewable energy.	NRREP achievements: 400,432 HHs have biogas plants, 88 of which are large scale plants, 794,276 HHs equipped with solar energy system, 10, 654 water mills, 1,701 institutional solar power systems and 41, 090 ICS (Economic survey 2017/18)
	NRREP: reduce dependency on biomass and make it more efficient. By 2020, expand energy mix focussing on renewables by 20%.	Energy consumption mix: Traditional energy – 68.6%, Commercial energy: 28.2% and Renewable energy: 3.2% (Economic Survey 2018/19) About 18% of the total population have access to electricity from renewable sources - 30.6 MW from medium and small hydropower projects and 26.5MW from solar and wind power (Economic survey 2018/19)
TRANSPORT	By 2020, increase the share of electric vehicles up to 20% from the level in 2010.	Out of 2,783,428 vehicles registered in Nepal, only 21,000 (0.75%) are electric-powered. (Source: DoTM 2017/18 and EVAN 2018)
	By 2050, decrease dependency on fossils in transport sector by 50%	Import of fossil fuels i.e petrol and diesel has doubled since 2016.

Nepal has made progress in both adaptation and mitigation targets set in NDCs. The target to maintain 40% forest cover has been met, although total forest cover does not necessarily equate to healthy, high quality forest areas, effective mitigation or adaptation, more ecosystem services or community benefits.

NAARC is developing stress tolerant varieties of paddy, maize and wheat, mainly cereal crops. The government has launched a national campaign to promote agriculture insurance. And a pilot initiative to provide weather information through mobile application to farmers is underway. These initiatives, however, are yet to be scaled up to reach and benefit the maximum number

of farmers in the country. The country also lacks a coherent mechanism or methodology to assess losses and damages.

Progress in renewable energy sector can be dubbed inadequate compared to the existing potentials. Only 18% of the population has access to electricity from renewable energy as against the NDC target (80%). Renewable energy accounts for a mere 3.2 % of total energy consumption, too low compared to the 20% NDC target by 2020. However, consulted experts believe that the renewable energy target is achievable by a later date, and that the implemented solar capacities is on a good track.

The current trend in the transportation sector is regressive. The percentage of electric vehicles is insignificant (<1 %) and

import of fossil fuels has doubled since 2016. There is no concrete information available on solid waste management.

8. Nepal's NDCs and Sustainable Development Goals

When implementing the NDCs, Nepal also faces the challenge of aligning them with the UN's Sustainable Development Goals (SDGs) as well as its own vision of becoming a middle-income country by 2030.

From a development standpoint, it is crucial to link Nepal's NDCs with the 17 SDGs and prioritize among them and their total of 169 targets. Nepal's National Planning Commission (NPC) has laid out a roadmap for achieving the SDGs by 2030. It clusters them into five groups (NPC, 2017):

- “Basic mark of civilization”: SDG 1 (No poverty), SDG 2 (Zero hunger), SDG 6 (Clean water and sanitation), SDG 7 (Affordable and clean energy)
- “Exercise of human capabilities and agency”: SDG 3 (Good health and well-being), SDG 4 (Quality education)
- “Higher human aspiration”: SDG 5 (Gender equality), SDG 10 (Reduced inequalities), SDG 16 (Peace, justice and strong institutions)
- “Means for sustained progress”: SDG 8 (Decent work and economic growth), SDG 9 (Industry,

innovation and infrastructure), SDG 11 (Sustainable cities and communities), SDG 12 (Responsible consumption and production)

- “Global commons”: SDG 13 (Climate action), SDG 14 (Life below water), SDG 15 (Life on land)

The first two groups are of the most urgent national importance while group three, four, and five have a national as well as regional and global dimension. (NPC, 2017)

Nepal's current 14th Development Plan treats climate change as a cross-cutting development issue that needs to be addressed to achieve the SDGs. The need for climate change adaptation and access to climate finance are highlighted, as is the goal of becoming a middle-income country by 2030 (NPC, 2017).

The first of Nepal's fourteen NDCs calls for the formulation of a National Adaptation Plan (NAP). This NAP, which is scheduled to be complete and ready by 2020, will contain seven thematic areas and adaptation pathways that directly map to the SDGs (MoFE, 2018):

National Adaptation Plan Thematic Sector	SDGs
1. Agriculture and food security	2
2. Water resources and energy	6, 7
3. Public health, water, sanitation, and hygiene	3, 6
4. Urban settlements and infrastructure	9, 11
5. Forests and biodiversity	15
6. Climate-induced disasters	13
7. Tourism and natural and cultural heritage	8, 11, 12, 14
Cross-cutting: gender and social inclusion, livelihoods and governance	1, 5, 8, 16

Likewise, the NDCs address the need to tackle poverty and climate change at the same time as well as the importance of

prioritizing SDGs. The fourteen NDCs can be easily mapped to the SDGs:

Nationally Determined Contribution	SDGs
1. Formulation of NAP for post-2020 adaptation needs of the country.	13
2. Strengthening implementation of Environment-Friendly Local Governance Framework.	5,10, 13, 16, 17
3. Undertaking scientific approaches to understand and deal with the impacts of climate change in mountains, hills, and lowlands; developing and implementing sectoral adaptation strategies.	13
4. Studying and understanding loss and damage associated with climate change impacts.	13
5. Formulating the Low Carbon Economic Development Strategy to promote economic development through low carbon emission with focus on energy, agriculture and livestock, forests, industry, human settlements and waste, transport, and commercial sectors.	All
6. Achieving 80% electrification through renewable energy sources and reducing dependency on fossil fuels by 50% by 2050.	3, 7, 8, 9, 11, 12, 13
7. Reducing dependency on biomass and making it more efficient through National Rural Renewable Energy Programme (NRREP) focusing on hydropower (mini and micro), solar home systems, solar PV, solar pumps, improved water mill, improved cooking stoves, and biogas.	7, 8, 9, 11, 12, 13
8. Expanding Nepal's energy mix focusing on renewables by 20% and diversifying energy consumption pattern by 2020.	7, 8, 9, 11, 12, 13
9. Increasing the share of electric vehicles up to 20% from the 2010 baseline by 2020.	3, 9, 11, 12, 13
10. Decreasing transport sector dependency on fossil fuels by 50% by 2050 through mass public transport and energy efficient and electrical vehicles.	3, 7, 9, 11, 12, 13
11. Developing Nepal's electrical rail network by 2040 to support mass transportation of goods and public commuting.	3, 9, 11, 12, 13
12. Maintaining 40% of the total area of the country under forest cover while managing forests sustainably.	3, 6, 11, 12, 13, 14, 15
13. Piloting a sub-national REDD+ project to reduce about 14 million tons of CO ₂ -eq by 2020 by addressing the drivers of deforestation and forest degradation.	3, 11, 12, 13, 14, 15, 16, 17
14. Decreasing the rate of air pollution through proper monitoring of air pollutant sources by 2025.	3, 6, 9, 11, 12, 13, 15

9. Policy Landscape and Gaps

Nepal is transitioning from a unitary administrative system to federal governance model. With the promulgation of the Constitution in 2015, the country is now governed at three administrative levels – a federal, provincial and municipal levels. Elections of all three levels were successfully held in 2017 and 2018. Presently, one federal government, 7 provincial governments and 753 municipal governments are functioning with mutually reinforcing powers as provided in the Constitution. The Constitution has provided a list of distinct and concurrent powers to all three governments. This also includes the mandates to each government to formulate and implement laws and policies on sustainable development and environment protection and conservation. The federal government has to formulate new laws and policies or amend existing laws and policies to make them coherent with new federal administrative system of the country. Concurrently, provincial and local governments are in the process of formulating laws and policies.

The laws and policies reviewed as part of the research are of federal government. These laws and policies were formulated by the government before the promulgation of the Constitution. Many of these are already in amendment process in the Parliament.

Climate Change related Policies

National Climate Change Policy of Nepal (2011) is a key policy document on climate change that aims to reduce GHGs by promoting renewable and clean energy and green technologies, and enhancing climate adaptation and resilience capacity through optimum utilization of natural resources. It has many time bound targets: establishment of climate change centre, implementation

of NAPA's identified projects by 2011, assessment of loss and benefit from climate change by 2013, formulation of low carbon development strategy by 2014, development of reliable weather forecasting system and so on. The policies have identified climate adaptation and disaster risk reduction; low carbon development and climate resilience; climate friendly natural resources management; technology development, transfer and utilization; capacity building, people's participation and empowerment; access to financial resources and utilization, and study and research as priority strategies in implementing the policy.

National Adaptation Programme of Action (2010) is another key document that has identified and prioritized climate change adaptation actions of Nepal. It has identified 6 sectors vulnerable to climate change. These are: Agriculture and food security, forest and biodiversity, climate-induced disasters, water resources and energy, public health and urban settlements and infrastructures. Gender and governance are identified as cross cutting issues. A stocktaking report of NAP (2017) has added tourism, and natural and cultural heritage also as the sectors vulnerable to climate change. NAPA has identified 9 multi-sector adaptation projects aimed at reducing climate change vulnerability across the vulnerable sectors.

Local Adaptation Plan of Action Framework (2011) is a landmark document that aims to integrate climate change adaptation activities into local and national development planning processes for promoting climate resilient development. The LAPA Framework facilitates formulation of the LAPA at previous local bodies such as VDC,

Municipality and District Development Committees (DDC). This includes 7 steps: 1) Climate change sensitization 2) Climate vulnerability and adaptation assessment 3) Prioritisation of adaptation options 4) LAPA formulation 5) LAPA integration into planning processes 6) LAPA implementation and 7) LAPA progress assessment. This is implemented in 14 districts under NCCSP funded by Department of International Development (DfID) and the European Union.

Besides these key policies and planning documents, and laws on different sectors such as agriculture, forestry, disaster, transportation and energy have key provisions related to climate change.

Sectoral Policies

Agriculture Development Strategy (2015-2035) provides a 20-year roadmap for agricultural growth in Nepal. It has envisioned a self-reliant, sustainable, competitive and inclusive agriculture sector that drives economic growth and contributes to improved livelihoods and food and nutrition security leading to food sovereignty. The strategy has prioritized 4 major components – improved governance, higher productivity, profitable commercialization and increased competitiveness – as its key outcomes. It also targets to build resilience of farmers to climate change, disaster and other shocks. A range of actions including research on stress tolerant varieties and breeds of crops, livestock and fish; establishment of early warning system; establishment of climate information and weather indexation systems; promotion of agriculture insurance; food, seed and feed/fodder reserve system; capacity building of extension staff and farmers in climate smart agricultural practices; fund for preparedness and response to drought, floods and other emergencies etc are prescribed as measures to build resilience.

National Climate Change Policy (2011) has provisioned both adaptation and mitigation actions in agriculture. It has emphasized development of floods and drought tolerant crop varieties and agriculture insurance as part of adaptation measures and low methane emitting agriculture technologies and practices as mitigation actions.

Forestry Sector Strategy (2016-2025) has identified ‘enhancement of climate resilient capacity of society and forest ecosystems’ as one of the five outcomes and ‘responding to climate change’ as one of the seven key thematic areas of the strategy. It has identified both adaptation and mitigation actions. Adaptation actions include increased awareness and capacity of community-based forest groups and other stakeholders; improvement in forest management plans to enhance forest resilience to climate change; implementation of forestry-related provision of NAPA and LAPA; assessment of vulnerabilities and risks facing communities and ecosystems, and implementation of ecosystem based and community adaptation measures. Mitigation actions include development of REDD+ strategy and integration into forestry sector planning; equitable and transparent access of local communities to carbon benefits and establishment of Forest Carbon Trust Fund. It aims to increase forest (forest and shrubs) cover to at least 40% of the country’s land area and bring down mean annual deforestation rate to 0.05 %. The targets also include protection of 0.2 million hectares of forest through implementation of adaptation plans by 2025 and enhancement of Nepal’s forest carbon stock by at least 5% by 2025 as compared to 2015 level.

National Climate Change Policy (2011) and NAPA (2010) has also identified forest as the source of both adaptation and mitigation actions. Enhancement of livelihoods by proper utilization, promotion

and conservation of forest resources, controlling forest fires and deforestation, sustainable forest management, payment of ecosystem services, implementation of REDD+ strategy are some of the measures emphasized by NAPA.

Disaster Risk Reduction National Policy (2018) aims to merge disaster risk reduction and climate change adaptation actions and mainstream them in development planning process. A long list of actions for disaster preparedness, search and rescue, recovery, rehabilitation and reconstruction has been prescribed by the policy. Use of science based disaster management information systems and early warning systems; forecast based preparedness and response plans for disaster; development of stress tolerant varieties of crops; crop and livestock insurance; development of climate smart infrastructure and climate responsive health service schemes are some of the key actions laid out in the policy that directly contribute to climate adaptation.

National Climate Change Policy (2011) and NAPA (2010) have provisioned early warning systems and forecasting as effective measures to minimize risk from climate induced disasters. Enhancement of capacity of institutions and communities and use of local knowledge, skills and technologies in disaster risk reduction and adaptation actions are other focal areas.

National Energy Strategy of Nepal (2013) aims to promote renewable energy thereby reducing dependency on imported fossil fuels. It has classified energy sources in three categories i.e fossil, renewable and nuclear. Renewable energy is further

classified as ‘conventional’ and ‘new renewables’. Conventional sources include hydropower and biomass based energy, while new renewable energy is generated from sun, wind, geo-thermal and others. Key strategies include discouraging the use of fossil fuels in transportation and machinery by promoting alternative fuels; enforcing energy efficiency programme; developing hydropower as prioritized energy source; promoting electric transport and fuel efficient vehicles; discouraging use of traditional energy in all energy sectors; and promoting the use of alternative or renewable energy thereby reducing dependency on traditional energy sources and fossil fuels. It aims to reduce 30% of traditional and fossil fuel consumption through the use of electricity in industrial and commercial sectors by 2030 and replace 50% of traditional cooking stoves with improved cooking stoves (ICS).

Environment Friendly Vehicle and Transport Policy (2014) promotes vehicles to run on electricity and other renewable energy for development of green cities. It also targets to increase the share of electric vehicles to 20% by 2020. It focuses on two wheeler and three wheeler electric vehicles such as bicycles, motorcycles, rickshaw, tempo and tricycles, and encourages production of these vehicles in the country. However, the policy is yet to prioritize electric vehicles for public and mass transportation. It focuses on in-country production of electric vehicles, development of infrastructure and conversion of fossil fuel-driven vehicles to electric vehicles.

POLICY GAPS

NDC focus sector	National Policies' Focus	Gaps
FORESTRY	Building community resilience through adaptation and mitigation actions.	Contribution of forestry to rural livelihoods and building adaptive and

<p>Maintain 40% of the total area of the country under forest cover.</p>	<p>resilience capacity is high. NDC needs to focus both on adaptation and mitigation actions.</p>	
<p>Pilot REDD+ project: reduce about 14 million tons of CO₂-eq by 2020. (mainly MITIGATION)</p>		
<p>AGRICULTURE Enhance agricultural sector by adopting climate-friendly technologies and reducing climate change impacts. (mainly ADAPTATION)</p>	<p>Building resilience of farmers to climate change, disaster and other shocks. Targets to develop stress tolerant crop varieties and low methane emitting technologies.</p>	<p>Contribution of Agriculture to GHG emission is significant in the context of Nepal. NDC needs to focus also on mitigation actions.</p>
<p>CLIMATE INDUCED DISASTER Address climate-induced disasters in the earthquake affected areas and rebuild Nepal better.</p>	<p>Mainstreaming DRR and CCA in development planning processes. A list of risk minimization and risk transfer measures prescribed.</p>	<p>Despite various initiatives underway in DRR sector, NDC does not have specific targets set on DRR.</p>
<p>RENEWABLE ENERGY Divert from energy mix and energy consumption patterns to more renewable and other economically productive sectors and achieve 80% electrification through renewable energy. By 2020, expand energy mix focussing on renewables by 20%.</p>	<p>Promote renewable energy thereby reducing dependency on imported fossil fuels. Replace 30% of traditional and fossil fuels consumption with electricity in industrial and commercial sectors by 2030 and replace 50% of traditional cooking stoves with improved cooking stoves (ICS).</p>	
<p>TRANSPORTATION By 2020, increase the share of electric vehicles up to 20% from the level in 2010.</p>	<p>Promote electricity and other renewable run vehicles and targets to increase the share of electric vehicles to 20% by 2020.</p>	<p>Both NDC and national policies need to focus on public and mass transportation.</p>
<p>By 2050, decrease dependency on fossils in transport sector by 50%.</p>	<p>Mainly focus on two wheeler and three wheeler electric vehicles such as bicycles, motorcycles, rickshaw, tempo and tricycles.</p>	<p>Investment in infrastructure required for promoting the use of electric vehicles.</p>

10. Institutional Arrangements for NDC Implementation

The Ministry of Forest and Environment (MoFE) is the lead agency within the government system for implementation of NDC. It is also focal agency for UNFCCC. NDC targets spread across multiple sectors as explained above. The government's Business Allocation rules have assigned

- Ministry of Agriculture Development
- Ministry of Home Affairs
- Ministry of Water Resources and Energy
- Ministry of Physical Infrastructure and Transport
- Department of Hydrology and Meteorology

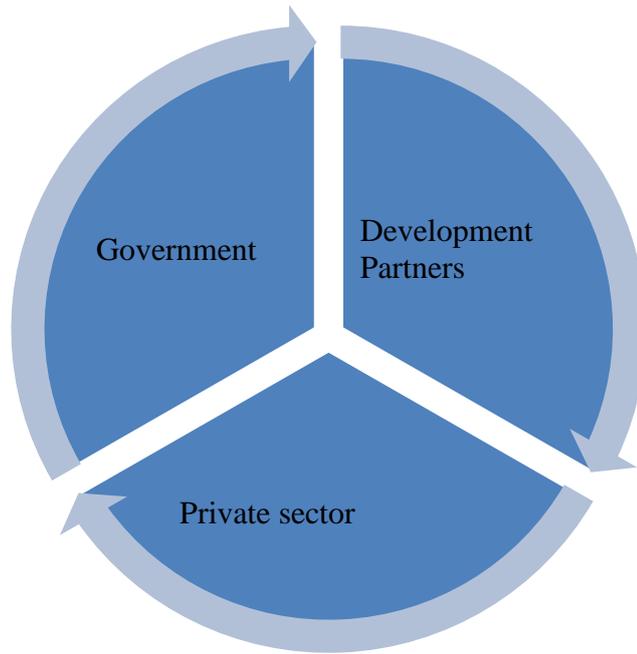
Apart from the federal government agencies, provincial and local governments also have important roles to play in the implementation of NDC. With restructuring of state and devolution of power, provincial and local governments have the mandate to formulate laws and policies and undertake actions that contribute to climate change adaptation and mitigation.

Along with the government, national and international development agencies, and the private sector have complementary roles in the implementation of NDC.

these sectors to different ministries and agencies under them. Apart from MoFE, other major ministries and agencies important for the implementation of NDC include:

- Department of Transport
- Department of Forest
- Department of Agriculture
- Nepal Agriculture Research Council
- Alternative Energy Promotion Centre

Development agencies are providing financial and technical support for materializing development ambition of Nepal. International assistance to Nepal on climate change amounted to USD 151 million between 2011 and 2016. Development agencies are already working in sectors such as agriculture, forest, disaster risk reduction, water resources, and energy and so on. Many development agencies have already mainstreamed climate change in their development programmes and projects. These agencies play critical roles, particularly in building resilience and adaptive capacity.



Graph: Stakeholders to be engaged in NDC implementation

The private sector has new and emerging role in development endeavours and also in the implementation of NDC. Private sector investment in energy, transportation, industry and waste management sectors is increasing. Promoting private sector investment in green and clean technologies can substantially contribute to meeting NDC targets.

Currently, no mechanism exists to bring these three sets of actors to a common platform for joint planning and action. There is a need to build synergy among the work of these actors to determine the country's total capacity to meet NDC targets. The government's role is to create a conducive environment for development partners and the private sector to work jointly in setting and implementing NDC.

11. Gender and NDCs

Climate change impacts are not gender neutral and are experienced differently by men and women because of different social roles, determined by cultural norms, the gendered division of labour, historically rooted practices, power structures and persistent inequalities. Climate change affects and impacts women more disproportionately and it also reinforces and escalate the existing gender inequalities. Gender inequality can be both a cause and consequence of disproportionate impacts of climate change to women. Their vulnerabilities to the impacts of climate change, therefore, are twofold: their dependence on natural resources and their lack of access to and control over resources such as financial, land, education, information etc. Women, particularly in rural areas, are highly dependent on natural resources base for their livelihoods. Lack of access to, and control over the resources they are dependent on and their limited participation in decision making process increase victimization of women. Women should be in the frontline of adaptation and resilience building measures. It is important to integrate voices of both men and women reflecting particularly the latter's specific needs, interest and concerns in climate relevant laws, policies, programmes and projects with budget factored in for addressing them is the key to gender mainstreaming in climate change. Gender mainstreaming is fundamental in achieving the twin goals of climate resilience and gender justice.

The National Climate Change Policy 2011 has prioritized participation of women in implementation of climate adaptation and climate related programme. Although, the policy is silent on gender specific climate vulnerabilities and needs, it recognizes the

importance of women's engagement in implementation of climate adaptation programmes. National Adaptation Programme of Action (NAPA) have identified 'gender' as the cross cutting theme. NAPA has recognised the gender differentiated impacts of climate change and taken account of gender-related issues in developing priority projects on adaptation. The existing policies and plans on climate change have incorporated gender considerations as a key element in climate change programming. The projects and programmes have considered gender-differentiated needs and designed activities accordingly. However, what is missing is women's meaningful participation in these programmes and projects design processes. For a gender-responsive climate change programming to materialize it is essential that women's groups and organizations participate in such processes including budget preparation processes and monitoring without limiting them only to implementation.

The Constitution of Nepal guarantees gender equality and justice from right based perspective. The Government of Nepal has, accordingly, recognized gender equality and women's empowerment as a most important inclusive development imperative. This is evidenced by such initiatives as integration of gender considerations in the country's periodic and sectoral plans, implementation of gender responsive budget code and designation of gender focal points at all sectoral ministries.

The present Nationally Determined Contributions (NDC) is gender blind. Gender disproportionate vulnerabilities are not considered in determining adaptation and mitigation activities. None of the

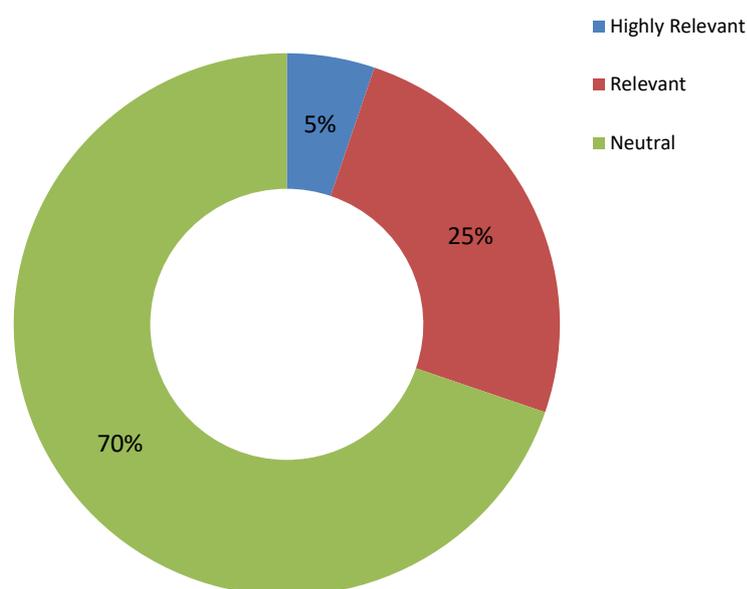
adaptation and mitigation actions have specifically targeted women groups. Neither, the role of women and women's

groups are recognized in building resilience capacity.

12. Financing NDCs

The Government of Nepal is mobilizing a substantial part of its annual budget for climate actions. In FY 2019/20, approximately 30 % of the total budget of federal government is tagged as climate

relevant. Of this, 5 % is highly relevant and 25% relevant. In the last seven years, the government has allocated in an annual average of 22.5 % of the budget to climate relevant actions.



Graph: Climate relevant budget of National Budget of Nepal of FY 2019/20

Likewise, a substantial amount of climate finance is being mobilized through non-budgetary system, directly through national and international non-government organizations and bilateral development aid agencies. No accurate record of such financial flow from non-budgetary system is available. Similarly, the private sector is also investing in clean and low carbon emitting technologies. There is also no proper record of private sector investment in climate actions.

Due to the lack of such a record it has been difficult to assert as to how much investment the government, non-government organizations and the private

sector are making in climate actions in Nepal, although these investments are directly or indirectly contributing to the implementation of NDC. And there is no estimation of finance required to implement the NDC.

The country was one of the first in the world to introduce a comprehensive budget tagging system in 2012 (Governance of Climate Change Finance, 2016). However, the almost 30% of the budget that are classified as climate-relevant might not actually go into climate action, especially regarding the money allocated to local level authorities (Freedom Forum, 2019).

13. Monitoring and Evaluating NDCs

The countries need to periodically report to the UNFCCC on the NDC progress. The next reporting period is December 2020. They need to submit NDC progress every five years thereafter. For a timely and robust NDC reporting, monitoring and evaluation system needs to be in place. Unfortunately, the present NDC does not have any framework to periodically monitor the progress made in different sectors. In the absence of a monitoring framework, it is difficult to estimate actual progress made in different sectors to meet NDC targets.

Sectoral ministers have made progress but there is no mechanism to report it to the Ministry of Forest and Environment (MoFE), the focal agency. In the present

context, the problem further worsens as there is no clear mechanism to report and monitor the actions undertaken by provincial governments and municipal governments. There is a clear danger of different government agencies and academic/civil society organisations working in silos and not exchanging information, experiences, and lessons learned.

Monitoring and reporting of the work and progress made by development partners and the private sector is another challenge. There is currently no dedicated mechanism for implementation, financing, and monitoring connected to the NDCs, which therefore mostly work ad hoc or through existing sectoral mechanisms.

14. Conclusion and Way Forward

The Government of Nepal is in the process of revising the Nationally Determined Contribution (NDC). The new and revised NDCs will be submitted to the United Nations Framework Convention on Climate Change (UNFCCC) by December 2020. The new NDCs must be both ambitious and comprehensive.

They should be ambitious to contribute to lessen mitigation and adaptation gaps to meet the goals of the Paris Agreement. It should be comprehensive to cover all major dimensions of climate change, including emerging concept of Loss and Damage. Findings and recommendations of the research paper will be useful for the government to frame a new, ambitious and comprehensive NDC.

In addition to the revised NDCs and the NAP, the government also works on a Low Carbon Economic Development Strategy as well as a Gender and Climate Change Strategy. Furthermore, it is trying to come up with a coordination mechanism to prevent different government entities from working in silos and to in the harmonization and integration of these different policies and strategies, which would go a long way toward closing many of the biggest identified gaps.

The below points summarize the key findings of the research:

1. The progress has been made in meeting the targets set in few sectors. A substantial achievement has been made in forestry sector. In other sectors such as agriculture, renewable energy and disaster, some actions had been undertaken as mentioned in NDC. However, in the transportation sector there is a reverse trend as the import of petroleum products has doubled since 2016.
2. Among sectors relevant to adaptation, the present NDC does not cover water resources, public health and urban settlements and infrastructure sectors. Climate induced disaster is key for adaptation and loss and damage, however the present NDC does not have explicit targets. The new NDC must include all relevant sectors to adaptation.
3. The introduction of a more fine-grained indicator of forest restoration and conservation success would help measure the future success of keeping Nepal's forest cover intact and healthy.
4. It is difficult to document the progress made on specific sectors due to lack of Monitoring Reporting and Verification (MRV) mechanism. The new NDC must prescribe a comprehensive MRV mechanism for the relevant government agencies, development partners and private sectors.
5. If there are concrete targets and if the government states detailed requirements and creates a robust MRV mechanism, it will be easier to access international climate finance and convince funding agencies.
6. In a few key sectors such as agriculture and forestry, NDC targets do not fully reflect the priorities of national laws and policies. The new NDC must set sectorial targets aligning with national priorities.
7. It is important that the new NDC formulation process should be

participatory and inclusive. NDC implementation need ownership across the various government agencies and development partners and private sectors. All concerned stakeholders should be engaged and part of the formulation of new NDC.

8. Local government should be especially targeted and given ownership of the NDC implementation process falling under the purview. Under the new constitution, local authorities have the ability to set their own priorities and allocate their own funds. This creates a new decision-making space for them and offers a great opportunity to build their capacity and awareness of climate change issues, strengthen the implementation of climate action on the local level, and mainstream and adaptation and mitigation as well as climate risk assessments into all their processes.
9. The new NDC must recognize the roles and contributions of development partners and private sectors in achieving NDC targets. Works of development partners and the private sector must be account while setting new NDC targets.
10. The new NDC must be aligned with Nepal's Long-term Development Vision and Sustainable Development Goals targets. There

are specific targets that directly contribute to climate change adaptation and mitigation, these targets must be the basis for setting new NDC targets.

11. The new NDC must be gender sensitive and includes gender specific targets and adaptation and mitigation actions.
12. The climate budget tagging should be overhauled to be more precise, especially when it comes to local-level allocation of funds.
13. As available international and national funding is often spent on the national level and does not reach local government or the ground level, the new NDCs need to contain an implementation and financing plan.
14. Even if Nepal is not a major producer of GHG emissions, setting a tangible target for further emission reduction is likely to be advantageous, as it offers opportunities in carbon trading and the possibility to leverage additional climate finance.

Nepal is on the right track, but the new NDCs and the NAP need to address the above-mentioned gaps and make sure that they have a strong and robust interlinkage with other national and sub-national policies as well as the country's development goals toward becoming a middle-income country by 2030.

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16. Annex

List of Key Informant Interviews

S.No.	Name	Position	Organisation
1.	Dr. Maheshwar Dhakal	Joint Secretary and Head	Climate Change Management Division, Ministry of Forests and Environment
2.	Akhanda Sharma	Under Secretary	Ministry of Forests and Environment
3.	Min Bahadur Shahi	Member	National Planning Commission
4.	Bidhya Pandey		Ministry of Agriculture Development
5.	Dr. Ganga Acharya		Ministry of Agriculture Development
6.	Ghanashyam Malla		Nepal Agriculture Research Council
7.	Prem Pokhrel		Alternative Energy Promotion Centre
8.	Manjeet Dhakal	Head of LDC Support Team	Climate Analytics
9.	Basanta Paudel	Country Consultant	IISD
10.	Sunil Acharya	Project Manager	Practical Action South Asia

List of Consultation meeting and workshop

Consultation 1: Civil Society Organizations		Date: 31st May 2019
S.No.	Name	Organisation
1	Sunil Acharya	Practical Action Nepal
2.	Apar Poudya l	UNDP Nepal
3.	Geeta Pandey	KIRDARC Nepal
4.	Raju Jati	SAHAS Nepal
5.	Binita Bishwakarma	DanChruch Aid Nepal
6.	Prashant Khanal	Freelancer
7.	Durga P. Upadhayaya	United Mission to Nepal
8.	Dipesh Joshi	WWF Nepal
9.	Sita Sunar	HiMAWANTI Nepal
10.	Anuaj Shrestha	Tewa
11.	Lalmani Wagle	Clean Energy Nepal

Consultation 2: Government Agencies		Date: 21st June 2019
S.No.	Name	Organisation
1.	Alok Sharma	Nepal Agriculture Research Council

2.	Prem Kumar Pokhrel	Alternative Energy Promotion Centre
3.	Rishi Raj Acharya	Ministry of Federal Affairs and General Administration
4.	Binod Kunwar	Ministry of Agricultural Development
5.	Biju Kumar Shrestha	National Planning Commission
6.	Govinda P. Kharel	Ministry of Physical Infrastructure and Transportation
7.	Basanta Paudel	National Adaptation Plan Formulation Team, Ministry of Forests and Environment

National Workshop		Date: 12th July 2019
S.No.	Name	Organisation
1	Amit Prasad Timilsina	NARC
2	Ram Prasad Bhattarai	DP-Net Nepal
3	Binita Bishwokarma	DCA
4	Jayanti Sharma	Himawanti
5	Birkha Bdr Shahi	FECOFUN
6	Selina Nakarmi	YAE
7	Priti Sakha	NYCA
8	Arati Khadgi	WWF Nepal
9	Govinda Khanal	Winrock International
10	Rassu Manandhar	AEPC
11	Durga P. Upadhyaya	UMN
12	Kushal Gurung	Wind Power Nepal
13	Raju Jati	SAHAS Nepal
14	Meeta S. Pradhan	The Mountain Institute
15	Sunil Acharya	Practical Action Nepal
16	Shankar Sharma	Clean Energy Nepal
17	Noboru Zama	UN-Habitat
18	Go Eun Park	UNICEF
19	Md Harum Rashid	UNICEF
20	Anuja Shrestha	TEWA
21	Rajan Thapa	CAA
22	Geeta Pandey	KIRDARC
23	Manjeet Dhakal	Climate Analytics
24	Basanta Paudel	NAP Formulation Team
25	Apar Poudel	UNDP
26	Vositha Wijenayake	SLYCAN Trust