

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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ABSTRACT

The Paris Agreement requires Parties to prepare, communicate, and maintain successive Nationally Determined Contributions. Bangladesh, Nepal and Sri Lanka have submitted their NDCs which include mitigation as well as sector actions linked to adaptation and loss and damage. However, the countries face different gaps and needs for the implementation of these commitments such as gaps and needs among others in laws and policies, institutional and technical capacity, means of implementation. This paper identifies gaps and needs in Bangladesh, Nepal and Sri Lanka for the implementation of adaptation and loss and damage components through legal and policy analysis, expert interviews, small group consultations, national and regional multi-stakeholder workshops. The research highlights the gaps and needs on laws and policies related to the implementation of NDCs, capacity (technical, financial, institutional and others), institutional and coordination setup, data access, research, and knowledge products as well as on measurement, reporting, and verification of adaptation and loss and damage actions, and gender-responsiveness on climate change policies. The research recommends to align, integrate, and build synergies between NDCs, National Adaptation Plans, Sustainable Development Goals, the Sendai Framework on Disaster Risk Reduction, and other related processes; to develop data and knowledge sharing mechanisms to address the identified technical and knowledge gaps; and to develop common national monitoring and evaluation systems for climate change adaptation and loss and damage related processes.

KEYWORDS

Capacity building, Climate change, National Adaptation Plans, Nationally Determined Contributions, Sustainable Development Goals, United Nations Framework Convention on Climate Change

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HIGHLIGHTS

- » The NDCs are at the heart of the Paris Agreement and play a vital role in changing the world's course towards a sustainable pathway, and limiting global warming to 1.5°C to 2°C above pre-industrial levels.
- » NDCs are not limited to mitigation, and many developing countries including Bangladesh, Nepal and Sri Lanka have submitted adaptation and loss and damage NDCs, or actions interlinked with these two components.
- » For an effective implementation of NDCs on adaptation and loss and damage, there are many gaps and needs to be overcome.
- » A gap analysis is necessary to identify the existing gaps and needs for the implementation of NDCs on adaptation and loss and damage, and to build synergies with other related processes on climate change adaptation, sustainable development and addressing climate risks.
- » Building capacities and addressing existing knowledge gaps through regional and international cooperation will help bridge the gaps and address the needs related to the implementation of NDCs on adaptation and loss and damage.

1. INTRODUCTION

In 2015, 196 parties signed the Paris Agreement to change the world's course towards a sustainable pathway and limit global warming to 1.5°C to 2°C above pre-industrial levels.

One of the core elements of the Paris Agreement is the concept of Nationally Determined Contributions (NDCs). The Paris Agreement requires each party to prepare, communicate, and maintain successive NDCs. These communicated NDCs are recorded in a public registry and maintained by the United Nations Framework Convention for Climate Change (UNFCCC) Secretariat (UNFCCC, 2015). NDCs are submitted every five years, and the next round of NDCs, which could potentially include new or revised NDCs, is expected by 2020. To date, 184 Parties have submitted their first NDCs, and one Party submitted its second NDCs (NDC registry: <https://www4.unfccc.int/sites/ndcstaging/Pages/Home.aspx>).

The NDCs submitted by countries are not only focused on mitigation but also interlink with sectors connected to adaptation and loss and damage. Furthermore, NDC implementation in a country is not a standalone activity but interconnected with different processes such as the National Adaptation Plans (NAP) process introduced under the Cancun Adaptation Framework (CAF) in Decision 1/CP.16, FCCC/CP/2010/7/Add.1, the Sustainable Development Goals (SDGs) under the United Nations development processes, and the Sendai Framework on disaster risk reduction.

This research has as its objective to identify policy gaps and needs for the implementation of NDCs on adaptation and loss and damage in Bangladesh, Nepal, and Sri Lanka; to identify synergies and alignments between other related processes such as NAPs, SDGs, and the Sendai Framework; to share knowledge and expertise related to addressing gaps and needs; to develop regional cooperation in addressing and building synergies for the implementation of NDCs; and to develop multi-stakeholder driven, gender-responsive, inclusive and participatory recommendations to address the identified gaps and needs for the implementation of adaptation and loss and damage NDCs of the three countries.

NAPs build upon the experiences from the national adaptation programmes of actions and have their objectives as the reduction of vulnerability to the impacts of climate change by building adaptive capacities and resilience; facilitating the integration of climate change adaptation, in a coherent manner, into relevant new and existing policies, programmes, and activities, in particular development planning processes and strategies, within all relevant sectors and at different levels, as appropriate (UNFCCC, 2001a).

The guiding principles of NAPs indicate that NAPs should follow a country-driven, gender-sensitive, participatory, transparent approach and be undertaken in accordance with the convention. They should take into consideration vulnerable groups, communities, and ecosystems and be gender-sensitive. Guided by the best available science as well as traditional and indigenous knowledge, they should integrate adaptation into relevant social, economic, and environmental policies and actions without being prescriptive or duplicating the efforts of the country, instead facilitating country-owned and country-driven action (UNFCCC, 2001b).

To date, thirteen countries have completed their NAPs and shared them via the NAP Central platform maintained by the UNFCCC Secretariat. Additionally, some countries have developed a document or plan that is deemed to be equivalent to the country's NAP but has not been shared on NAP central. For example, Afghanistan has prepared a national adaptation plan which is not yet submitted to the NAP Central of the UNFCCC.

1.1 NDCs of Bangladesh, Nepal and Sri Lanka

Bangladesh, Nepal, and Sri Lanka have submitted their NDCs which included mitigation as well as sector actions linked to adaptation and loss and damage. All three countries have initiated the process for NDC revision for the submission of the revised NDCs by 2020.

1.1.1 NDCs of Bangladesh

Bangladesh communicated its first NDCs in 2015 for the period up to 2030, focusing on four key components which include mitigation, adaptation, NDC implementation, and support for NDC implementation.

The mitigation section of the NDCs includes the country's pledge to reduce its GHG emissions by 5% to 15% (subject to appropriate international support) by 2030 (Ministry of Environment and Forests, 2015) and the adaptation NDCs of Bangladesh presents the existing contributions from adaptation, plans to support adaptation, and synergies with mitigation measures. The NDCs also include key elements linked to NDC implementation such as governance and coordination at the national level and support needed for NDC implementation.

1.1.2 NDCs of Nepal

Nepal submitted its NDCs in 2016 (Ministry of Population and Environment, 2016), to reduce climate change impacts through adaptation actions to protect life and livelihoods of vulnerable climate communities. As a country with only a minimal contribution to global GHG emissions, Nepal focuses on adaptation and at the same time, aiming at increasing renewable energy production, and maintaining a low carbon pathway. Among

key elements of focus on Nepal's adaptation NDCs are the formulation of the NAP to address the post-2020 adaptation needs; enhancing and implementing an Environment-Friendly Local Governance Framework; undertaking scientific approaches to address climate change adaptation needs. The NDCs focuses on loss and damage and aims to study and understand loss and damage associated with climate change impacts.

1.1.3 NDCs of Sri Lanka

Out of the three countries, Sri Lanka's NDCs was submitted in 2016 (Ministry of Mahaweli Development and Environment, 2016), and could be referred to as the most detailed. It consists of 14 sectors which include mitigation, adaptation, loss and damage, and means of implementation commitments. Among these the adaptation sectors focus on of health; food security (agriculture, livestock, and fisheries); water and irrigation; coastal and marine; biodiversity; urban, city planning, and human settlements; and tourism and recreation sectors. In addition to this, the NDC consists of loss and damage related commitments, and means of implementation for the NDC implementation.

1.2 Interlinkages and alignment with related processes

There are diverse processes such as the NAP, SDGs and Sendai Framework, which interlinks with NDCs on adaptation and loss and damage. This research focuses on identifying the existing synergies and potential alignments between the implementation of NDCs and other processes and building entry points to address the identified gaps and needs for the implementation of NDCs in the three countries of focus.

1.2.1 NDCs and NAP alignment

While Sri Lanka's NDCs on climate change adaptation closely link with the National Climate Change Adaptation Plan for Sri Lanka (2016 – 2025), i.e. the NAP of Sri Lanka, both Nepal and Bangladesh are still in the process of developing their NAPs.

1.2.2 SDGs and NDCs

All three countries NDCs refer to its objectives and commitments achieving sustainable development. This includes social and economic resilience building, setting up institutional mechanisms for the implementation of SDGs, and developing policies and road maps for achieving SDG indicators.

1.2.3 Sendai Framework and NDCs

Out of the three countries, the NDCs of Sri Lanka have a detailed component of loss and damage. However, when considering the country context, Bangladesh has interlinkages between their disaster risk reduction

and climate change loss and damage related actions which include common actions on setting up a national mechanism on the Warsaw International Mechanism on Loss and Damage (WIM). However, none of the NDCs refers to Sendai Framework directly, while elements of the Sendai Framework are incorporated through different sectoral and related actions.

2. METHODOLOGY

This research paper has been prepared based on legal and policy analysis relevant to the NDC sectors on adaptation and loss and damage in the three countries, interlinked with a consultative process through interviews and sectoral- and national-level multi-stakeholder consultations. This includes a national workshop in each country, a regional workshop organised in Sri Lanka, fourteen consultations in Sri Lanka, two consultations in Bangladesh, two consultations in Nepal, five webinars with 184 registrations, and a series of recorded expert interviews. The workshops and consultations had a total of 350 participants and were held in cooperation with government entities under the NDC review process and focused on different NDC adaptation and loss and damage sectors and areas of gaps and needs. The process is further detailed in the four output documents together with the results, comprising country-level research papers on Sri Lanka, Bangladesh, and Nepal as well as a regional synthesis paper comparing the three countries (Wijenayake, 2019).

Key national documents on climate change, sustainable development, disaster risk management and disaster risk reduction, including the (I)NDCs, National Adaptation Programmes of Action, climate change policies, national communications to the UNFCCC, and Sri Lanka's National Adaptation Plan, and relevant sectoral policies were reviewed during the research. The findings of this research were validated through the above-mentioned consultation meetings and workshops. Additionally, the final research product has been prepared, taking into consideration the feedback and comments received from the meetings and workshops. Following the finalization of the national research paper, the findings were incorporated to a regional comparative study based on the country studies, and with additional expert comments through regional expert interviews, and inputs received through the regional workshop.

2.1 Methodology: National papers for Bangladesh, Nepal and Sri Lanka

The research methodology applied consists of the following components.

2.1.1 Policy gaps and needs analysis

Laws and policies related to all sectors that are included in the NDCs and the NAP, as well as related to cross-cutting thematic areas have been analysed to identify the gaps and needs on the laws and the policies for the implementation of relevant NDCs of each country.

2.1.2 Sectoral and national level multi-stakeholder consultations and workshops

Based on the initial legal and policy analysis for the laws and policies related to climate change and sustainable development, sectoral meetings were conducted for the adaptation and loss and damage NDCs related sectors. Key stakeholders from government entities, civil society organisations (CSOs), research institutions and think tanks, private sector, and academia were invited for the consultations. Data collection through consultations were based on discussions with the stakeholders and inputs on the present status of NDC implementation, and data provided on gaps and needs existing for the implementation of the sectors' NDCs by the participating stakeholders.

2.1.3 Preparation of the initial draft

Following the sectoral consultations, the first draft of the research paper was written. The findings of the research paper were presented at a national multi-stakeholder workshop, and the inputs received were incorporated to finalize the country papers.

2.1.4 Sharing of research findings via knowledge-sharing platforms

Following the activities listed in 2.1.1 to 2.1.3, the country research findings were presented to larger audiences via network meetings, related consultations and workshops, as well webinars for knowledge sharing on which country presentations were made focusing on different thematic focuses.

2.2 Regional comparative paper

The regional comparative research paper and findings were based on three steps which are listed below.

2.2.1 Synthesis of country research findings

Country research findings were synthesized to identify common gaps and needs among the three countries of focus. The findings of the regional paper were then shared on different platforms, online as well as regional consultations and workshops to gain insights for improvement. Based on expert interviews, existing research, the initial draft of the regional analysis was prepared.

2.2.2 Regional workshop for validation of findings

Following the drafting of the paper, the findings were presented to a regional audience during a two-day workshop where inputs were gathered for the reviewing and refining the findings. The final regional paper was completed based on the inputs and comments received, and additional input sought through online interviews from identified experts on adaptation, loss and damage and the UNFCCC process.

2.2.3 Sharing of findings

The final findings of the regional paper have been shared on different knowledge-sharing platforms including the Adaptation and Resilience Knowledge Hub developed as part of the regional research project, as well as webinars organized for sharing findings with regional and international stakeholders.

2.3 Summary of the participants and the activities

The following table presents a synthesized summary of the participation of different stakeholders, and activities conducted for the preparation of the national and regional gaps and need analysis of the NDCs on adaptation and loss and damage in the three countries of focus.

	<i>Consultations</i>	<i>Workshops</i>	<i>Participants</i>
Sri Lanka	14	1	200
Nepal	2	1	44
Bangladesh	2	1	50
Regional	–	1	56
Total	18	4	350

TABLE 1. List of activities conducted and the participation of different stakeholders.

3. RESULTS AND DISCUSSION

The research activities implemented in the three countries and the regional comparative paper have identified the following gaps and needs for the implementation of NDCs on adaptation and loss and damage, comparing the implementation plans and policy landscape across the different national sectors.

3.1 Bangladesh

For Bangladesh, the research identified a number of gaps and needs regarding the implementation of the adaptation and loss and damage component of the NDCs. The Government of Bangladesh has committed to formulate a NAP and implement the NDC adaptation components through it. There is a number of policies and strategies to support this process, but a lack of clear institutional mandates.

Sector	NDCs of Bangladesh	NDCs of Nepal	NDCs of Sri Lanka
<i>Mitigation Sectors</i>			
Energy	Rural Electrification	Renewable Energy (NDCs 5, 6, 7, 8, 14)	Energy (Electricity Generation)
Transport and Infrastructure	Resilient Infrastructure	Transportation (NDCs 10, 11)	Transportation
Industry	Industry		Industry
Waste Management		Solid Waste Management (NDC 5)	Waste
<i>Adaptation / Adaptation-Related Sectors</i>			
Health	Health		Human Health
Food Security	Food Security	Agriculture (NDC 5)	Food Security (Agriculture, Livestock, Fisheries)
Water	Water Security		Water and Irrigation
Coastal and Marine	Flood Control and Coastal Erosion, Coastal Zone Management,		Coastal and Marine
Ecosystems	Ecosystems, Community-Based Conservation	Forestry (NDCs 5, 12, 13)	Biodiversity, Forestry
Human Settlements	Urban Resilience		Urban Infrastructure and Human Settlements
Tourism and Recreation			Tourism and Recreation
Loss and Damage	Disaster Management, Social Protection and Livelihoods	Climate-Induced Disasters (NDC 4)	Loss and Damage

TABLE 2. Comparison of NDC implementation plans of Bangladesh, Nepal and Sri Lanka and the policy landscape across different national sectors.

Bangladesh has not finished its NAP and is, therefore, missing a key component of its framework for adaptation-focused climate action. Gaps and needs related to institutional capacity, knowledge and awareness about adaptation and loss and damage related actions, and lack of coordination between different government institutions constitutes were also highlighted. The proposed institutional setup for NDC implementation is not yet functional. Research also highlighted the need for boundaries and responsibilities to enhance the transparency, and the cooperation and coordination between the relevant ministries, agencies, and departments.

Bangladesh has developed its NDC Implementation Road Map. However, one of the critical needs remains the inclusion of detailed financial and technical support, and the integration of NDC adaptation sectors into the main sectoral plan, programs, projects, and policies.

Additionally, climate finance for adaptation and loss and damage actions has already been identified as a need, as the current adaptation funding is allocated predominantly from the national budget (approximately 1% of the GDP). Besides, an assessment of resource and capacity needs is also identified as a key need for the mobilization of adequate resources and private sector engagement for adaptation action.

Further, the need for enhanced focus on loss and damage was identified. The thematic focus is addressed

through different ways (safety net programme, disaster management and relief, emergency support, agricultural loans and subsidies), but continues to be left out from being integrated into the institutional structure and policies. This remains a gap and should be addressed, as Bangladesh is a highly vulnerable country to climate risks and climate-induced disasters.

MRV processes for adaptation and loss and damage NDCs is also a gap that has been identified for Bangladesh. The country at present does not have a detailed plan for the monitoring, progress tracking, and reporting of the national NDC/NAP implementation. Gaps and needs in monitoring and evaluation must be addressed to ensure effective, accountable and transparent NDC actions in Bangladesh.

3.2 Nepal

Among the gaps and needs for the implementation of adaptation and loss and damage components in Nepal are improved institutional coordination as well as integrated actions. Further, capacity gaps and needs for the implementation of NDCs among key stakeholders have also been highlighted through research findings.

Like Bangladesh, Nepal is currently in the process of formulating their NAP, which is aimed to serve as a vehicle for the implementation of adaptation actions.

The research also highlights that some of the key sectors for adaptation action, such as water resources, public health, and urban settlements and infrastructure which are not included in the NDCs of Nepal. This highlights the need for reviewing the NDCs to include the country priorities, the key vulnerable sectors, and synergies between SDGs, and other developmental processes.

Additional gaps and needs highlighted include the lack of explicit targets for loss and damage, which is included through the references to the climate-induced disasters sector. MRV system remains a gap requiring a mechanism to be set up, and the capacity for reporting and tracking progress of the NDC implementation has also been marked as a gap to be addressed. There is also the need to introduce a comprehensive MRV system for the relevant government agencies, development partners, and the private sector. This is expected to address the gaps existing in climate finance tracking, which relates to local level funding, budget tagging, and increasing the accessibility of finance to local entities.

Furthermore, defining the role of development partners, the private sector, and local authorities has been identified as a need for improved multi-stakeholder driven NDC implementation in Nepal.

3.3 Sri Lanka

Among key policy gaps and needs identified for the implementation of NDCs on adaptation and loss and damage are the non-existence, or the non-implementation of laws and policies for the implementation of the relevant NDCs in the country. This is due to the outdated sectoral policies or needing amendments to address the changing climate vulnerabilities and developmental priorities. For example in the health sector in Sri Lanka, the need for re-evaluating the existing policies concerning migrant workers has been identified through the key stakeholder consultations, due to risk of malaria being re-introduced to Sri Lanka through undocumented migrant workers arriving in the country.

Further gaps and needs are related to the capacity to engage with UNFCCC processes and NDC implementation. The interviewed stakeholders who are engaged in the research activities reported the need for capacity building on technical expertise linked to thematic areas on adaptation and loss and damage NDCs. Furthermore, there is also a need to have the calculation of losses and damages to provide an accurate amount of the climate-induced losses and damages, as well as the implementation of NDCs related to loss and damage.

Additionally, there is also a necessity for institutional capacity building for enhanced and improved coordination to implement NDCs, and the gaps in mandates for

coordination, data sharing and access to information. There are gaps in the implementation of NDCs activities due to a lack of ownership of activities related to NDCs by the sectoral ministries. Mandates for NDC sectoral coordination remains a gap and is aimed to be addressed through the enactment of the Climate Change Commission Act, which is at present in a draft form. It should also be noted that there are gaps in building synergies and the integration of climate change adaptation, and losses and damages due to climate-induced hazards and risks into the developmental processes such as SDGs, and Sendai Framework.

Among other gaps and needs noted through the research activities include the need for enhanced stakeholder engagement in climate change adaptation and loss and damage activity implementation under the NDC process. The increase of voices of the vulnerable communities in the decision-making processes was also identified as a key means for building resilience among vulnerable communities and ecosystems to climate change impacts.

Access to climate data needs for research in different climate-related sectors is also among the key gaps and needs identified. Moreover, the need for mobilising climate finance for adaptation and loss and damage actions, the capacity of different stakeholders for the development of bankable proposals was also noted as a gap to be addressed.

Gender-responsive climate policies and plans have also been marked as a need to be addressed, including awareness creation on the implication of gender on the climate actions, and the need for incorporating gender-disaggregated data for developing climate risk and vulnerability assessments.

MRV processes for climate actions in Sri Lanka remain in early stages. There is a need, as in Bangladesh and Nepal for the introduction of budget tagging system of climate finance for adaptation and loss and damage, monitoring and evaluation of climate action, and publicly accessible data on the implementation and progress of the implementation of NDCs of Sri Lanka.

The table on the following page lists the identified gaps and needs in all three countries and matches them up wherever possible.

3.4 Regional gaps and needs

Bangladesh, Nepal and Sri Lanka share some aspects of commonality. Among the gaps and needs that have been identified as common to all are, the need for enhanced institutional and coordination mechanisms for NDC implementation, and the need for developing synergies between existing developmental processes.

<i>Sri Lanka</i>	<i>Banqladesh</i>	<i>Nepal</i>
<i>Policies and Laws</i>		
Lack of laws for implementation of NDCs or lack of application of existing laws	Need to strengthen governance for effective implementation of NDC adaptation components	
Need to expand sectoral policies to address adaptation commitments	Need to develop a more detailed policy landscape for financing mitigation and adaptation actions	
Opportunity to integrate climate change adaptation into sectoral laws and policies	Need of detailed road maps for transport, power, and energy sectors	Need to include water resources, public health, urban settlements, and infrastructure into NDC sectors
Opportunity to strengthen the integration of SDGs and NDCs to create synergies between both processes	Need to integrate NDC adaptation sectors into the ADP, sectoral plans, programs, and projects, five-year plan etc.	Need to enhance alignment of sectoral target with national priorities and to enhance alignment of NDCs and SDGs
Need to improve integration with and awareness of WIM and the Sendai Framework	Need to integrate loss and damage into different institutions	Lack of explicit targets related to climate-induced disasters and loss and damage
Need to integrate climate-induced migration aspects into loss and damage sector		
<i>Institutions and Coordination</i>		
Need for enhanced coordination with sectoral ministries and entities	Need to establish effective coordination among ministries and other government institutions	
Need to enhance mainstreaming of climate action		Need to mainstream adaptation and climate risk assessments into local-level processes
Lack of coordination between different government entities and local stakeholders	Lack of coordination among different government institutions	Need to include local government and give ownership to them
Challenge of overlapping institutions and mandates		
		Opportunity to improve stakeholder engagement and increase participation and inclusivity in NDC review and implementation
<i>Capacity and Awareness</i>		
Need to build capacities, awareness, and technical expertise on climate change, climate risk, and climate action among government entities	Need to build capacity within government ministries and line agencies to effectively coordinate, streamline and implement NDC related actions	Opportunity to build local government capacity and awareness and strengthen local climate action
Need to enhance capacities of legal policy experts drafting laws and policies related to climate change		
Lack of awareness on climate change, climate risk, and climate change adaptation	Lack of awareness about the adaptation part of the NDC to concerned agencies and different agencies	
<i>Data and Research</i>		
Need to enhance monitoring and surveillance systems in several sectors		
Need for research in many areas to effectively address climate change		
Absence of data and data-sharing mechanisms in many sectors		
Need to strengthen early warning systems and meteorological data collection		
<i>Other</i>		
Financial and technological gaps	Lack of a practical roadmap on for adaptation finance; need to include detailed financial and technical support into the NDC road map	
Need to review and revise as appropriate gender responsiveness of NDCs and NAP of Sri Lanka		Need for more gender sensitivity and gender-specific targets and actions
Need to enhance existing monitoring mechanisms and introduce new ones	Need to develop a detailed monitoring plan to track and report on NDC-NAP implementation progress at the national level	Lack of a comprehensive MRV mechanism for government, development partners, and private sector
Opportunity to leverage additional private sector funding and enhance public-private partnerships	Need to increase the private sector engagement and overcome barriers to investment	Need to recognize the roles and contributions of development partners and private sector
Need to develop an implementation and financing plan for NDC actions on national and local level	Need for financial and political support to ensure that NDC implementation measures can gain momentum	Lack of a detailed implementation and financing plan; opportunity to overhaul climate budget tagging to be more precise regarding local-level fund allocation
	Need to secure and promote transparency in administrative and implementation processes of NDC	
	Need to conduct an assessment of resource and capacity needs and mobilization of adequate resources	Need for concrete targets and associated monitoring and evaluation
		Need for more detailed indicators for forest restoration and conservation success
		Lack of a tangible target for emission reduction

TABLE 3. Identified gaps and needs for the implementation of NDCs on adaptation and loss and damage in Bangladesh, Nepal and Sri Lanka.

Key stakeholders shared it, that nonexistence of a mandate or a law that facilitates the implementation of NDCs has functioned as a cause for ineffective, and uncoordinated actions.

All three countries have also demonstrated the need for an MRV process for the implementation of NDCs on adaptation and loss and damage. The need for budget tagging, and sharing of the progress of NDC action in a publicly accessible system.

Capacity gaps have also been highlighted related to financial, technology, and technical expertise related to adaptation and loss and damage sectors. The government sector capacity building for developing project proposals to mobilise funding for adaptation and loss and damage actions, identification and application of suitable technologies, and the need for key expertise on NDC actions are among some of the capacity needed to be shared by the participants of the research.

Access to research, knowledge, lessons learnt has been also shared as a gap. The need to share scientific and evidence-based climate adaptation data, information and research have been noted. In addressing this gap and need, the research has developed an adaptation and resilience knowledge portal, that aims to provide needed information and research findings with different stakeholders working on NDCs on adaptation and loss and damage.

Need for regional collaboration for providing technical expertise, sharing of NDC progress was also noted. Development of common actions for adaptation and loss and damage related issues, as well as mobilising of climate finance at a regional level are options that remain to be explored to facilitate the effective implementation of adaptation and loss and damage NDCs.

4. CONCLUSION

NDCs form a key component of global and national level climate change actions. Being developing countries with low GHG emissions, Bangladesh, Nepal and Sri Lanka must focus on effective implementation of NDCs on adaptation and loss and damage. However, it is important to identify gaps and needs at the country level for the implementation of these actions. Initiatives such as policy gaps and needs analysis, interlinking with the 2020 NDC review process present opportunities for collaboration in addressing gaps and needs identified, as well as identifying alignment and synergies among key processes such as NDCs, NAPs, SDGs and the Sendai Framework are vital. Developing countries share common capacity gaps and needs, and also possess a wealth of information and experiences which could provide space for enhancing regional capacity and knowledge on the

implementation of NDCs on adaptation and loss and damage. The research further will form the baseline for implementing capacity building activities on assessing climate risks, developing gender-responsive policies, plans and activities, enhancing the institutional and coordination mechanism at national and sub-national level for formulating and implementing adaptation plans and processes, and integrating climate change adaptation to the country's development processes.

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