

Assessing the Formulation Process of Forest and Other Land Use (FOLU) Sector of 2020 Myanmar's Nationally Determined Contributions (NDCS) As Submitted by the National Unity Government (NUG) of Myanmar

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Abstract

This study focuses on the perspectives of individuals actively engaged in or frequently participated in the formulation process to understand whether the process of formulating the Forest and Other Land Use (FOLU) sector – a key mitigation component of Myanmar's 2020 Nationally Determined Contributions (NDCs) – can lead to actionable targets that ultimately contribute to global temperature goals of the Paris Agreement. The conceptual framework for this study draws from the fact highlighted by previous scholars that policy formulation or design is a crucial step in policy cycle, influencing both the implementation phase and the outcomes of policies. We conducted semi-structured individual interviews with 11 participants. Interviews were transcribed and analysed using the open-coding method, which led to the emergence of three themes: (a) national context, (b) capacity and authority and (c) inclusive communication. The findings of this study indicate that the conceptual framing of ideas aimed at enhancing the FOLU sector is linked to the existing socio-economic context and is also grounded in the enabling conditions that characterised the reform process within the forest sector. Furthermore, the results suggest that the primary decision-maker who identified the FOLU sector as a critical area for mitigation and chose to improve the communication aspects with measurable objectives was the former National Focal Point from the Environmental Conservation Department (ECD), the focal agency. Additionally, the Forest Department (FD) played a significant role in shaping the development of both conditional and unconditional targets within this sector. Additionally, the findings highlight deficiencies in the communication strategy regarding the clear delineation of roles and responsibilities among the involved stakeholders. In light of these findings, this study articulates several recommendations to enhance the upcoming NDC preparations in Myanmar, focusing on FOLU sector.

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List of Abbreviations

AFOLU	-	Agriculture, Forestry, and Other Land Use
BTRs	-	Biennial Transparency Reports
BURs	-	Biennial Update Reports
CBDRRC	-	Common but Differentiated Responsibilities and Respective Capacities
CRPH	-	Committee Representing Pyidaungsu Hluttaw
CSOs	-	Civil Society Organizations
DFID	-	Department for International Development
DI	-	Discursive Institutionalism
DMH	-	Department of Meteorology and Hydrology
ECD	-	Environmental Conservation Department
FCDO	-	Foreign, Commonwealth and Development Office
FD	-	Forest Department
FOLU	-	Forest and Other Land Use
FREL	-	Forest Reference Emission Level
GGGI	-	Global Green Growth Institute
GHG	-	Greenhouse Gas
GIS	-	Geographic Information System
GoM	-	Government of Myanmar
iNDCs	-	intended Nationally Determined Contributions
INCs	-	Initial National Communications
IPs	-	Indigenous Peoples
IPCC	-	Intergovernmental Panel on Climate Change
JICA	-	Japan International Cooperation Agency
KNU	-	Karen National Union
KOICA	-	Korea International Cooperation Agency
LDCs	-	Least Developed Countries
LULUCF	-	Land Use, Land Use Change, and Forestry
MONREC	-	Ministry of Natural Resources and Environmental Conservation
MRRP	-	Myanmar Rehabilitation and Reforestation Program
MRV	-	Monitoring, Reporting and Verification
NCs	-	National Communications
NDCs	-	Nationally Determined Contributions
NECCCCC	-	National Environmental Conservation and Climate Change

		Central Committee
NFP	-	National Focal Point
NLD	-	National League for Democracy
NUCC	-	National Unity Consultative Council
NUG	-	National Unity Government of Myanmar
PAs	-	Protected Areas
R	-	Respondent
REDD+	-	Reducing Emissions from Deforestation and Forest Degradation
RQ	-	Research Question
SDGs	-	Sustainable Development Goals
SNCs	-	Second National Communications
TACCCC	-	Transparency, Accuracy, Consistency, Completeness and Comparability
UNDP	-	United Nations Development Programme
UNFCCC	-	United Nations Framework Convention on Climate Change
UNREDD	-	United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation
USAID	-	United States Agency for International Development
WRI	-	World Resources Institute
WWF	-	World Wide Fund for Nature

1. INTRODUCTION

The United Nations Framework Convention on Climate Change (UNFCCC) adopted the Paris Agreement on December 12, 2015, with the endorsement of 196 parties. The primary goal of the Paris Agreement is to collectively limit the rise in global average temperature to well below 2°C, with a target to restrict the increase to 1.5°C above pre-industrial levels (UNFCCC, 2015). At the heart of the Paris Agreement's implementation are the Nationally Determined Contributions (NDCs), which detail each party's commitments to reducing greenhouse gas (GHG) emissions (Pauw et al., 2018). In July 2021, Myanmar, as a Least Developed Countries (LDCs) Party to the UNFCCC, submitted its updated 2020 NDC through its Interim National Unity Government (NUG) of Myanmar¹ though it was not found in UNFCCC official website. This updated submission reflects enhanced ambitions and builds upon the key energy and forestry sectors identified in its 2015 intended Nationally Determined Contributions (iNDCs) (MONREC, 2021). This study will focus on the forestry sector, particularly the Forest and Other Land Use (FOLU) sector of Myanmar's 2020 NDC as communicated by the Interim NUG of Myanmar. It will mainly analyse the formulation process of the FOLU sector using the Discursive Institutionalism (DI) approach.

The Paris Agreement adopts a hybrid approach combining top-down global temperature targets and accountability mechanisms—such as reporting and review—with a bottom-up strategy that allows each party to define its own contributions to mitigation efforts. Within this top-down framework, parties are required to communicate their NDCs every five years, commencing in 2020 and continuing at five-year intervals thereafter (Röser et al., 2020; UNFCCC, 2015). According to Articles 4.3 and 4.4 of the Paris Agreement, all parties are encouraged to progressively enhance their mitigation contributions with each submission cycle. Furthermore, it is recommended that developing country parties strive toward establishing economy-wide

¹ NUG – The National Unity Government (NUG) was established as the interim government on April 16, 2021, with two primary objectives: to dismantle the military dictatorship in Myanmar, including the repeal of the 2008 constitution, and to create a genuine federal democratic union. This coalition comprises ousted democratically elected lawmakers, parliamentarians, and leaders from various ethnic minorities (“Myanmar’s National Unity Government Must Be Doing Something Right – The Diplomat,” n.d.) and (“Rebel Violence in Myanmar and NUG’s Crisis of Legitimacy | FULCRUM,” n.d.).

targets for emission reduction or limitations over time (UNFCCC, 2015). Parties are also obligated to adhere to the Paris Agreement Work Program, which details a more comprehensive framework for developing the contents and greenhouse gas accounting of their subsequent NDCs (UNFCCC, 2018). In contrast, the Paris Agreement provides parties with considerable flexibility to customise their climate goals in accordance with their specific national circumstances and priorities (Mbeva and Pauw, 2016; Pauw et al., 2019) by implementing a bottom-up planning process (Mbeva and Pauw, 2016). As noted by Rajamani (2016), the NDCs developed by each party should reflect “contributions” rather than more rigid “commitments.” Consequently, the process of structuring NDCs is crucial for achieving actionable mitigation targets that align with each country's intrinsic capabilities rather than merely focusing on escalating mitigation commitments in each successive cycle.

Schneider and Ingram (1997) pointed out that policy formulation is pivotal in determining the outcomes of policy initiatives. In the context of developing countries and those with emerging economies, Röser et al. (2020) highlighted that political will and implementation measures —such as capacity and an enabling environment – are essential prerequisites for preparing NDCs. The Government of Myanmar (GoM), under the leadership of the National League for Democracy (NLD)², initiated the preparation of its NDC document following the submission of its intended Nationally Determined Contributions (iNDC). Notably, the NLD Government continued to prioritise the forestry sector as the FOLU category and subsequently enhanced its targets, taking into account both national capacity and international support. The targets were quantifiably set as a conditional 50% reduction in deforestation and an unconditional 25% reduction—resulting in a cumulative net emissions reduction of 256.5 million tCO₂e and 123.6

² NLD - The National League for Democracy (NLD) is a political party in Myanmar, established on September 27, 1988. It emerged in the wake of the 8888 Uprising, a series of pro-democracy protests that occurred on August 8, 1988. The NLD achieved significant success, becoming the country's ruling party after a decisive victory in the 2015 general election (“National League for Democracy: CALD | Council of Asian Liberals and Democrats,” n.d.). However, after another substantial electoral win in 2020, the party was ousted in a coup in February 2021 (“Aung San Suu Kyi’s National League for Democracy party dissolved | Myanmar | The Guardian,” n.d.).

million tCO₂e, respectively—based on an emissions baseline from 2005 to 2015, covering the timeframe from 2021 to 2030 (MONREC, 2021). In enhancing those targets, the existing and developing policies and action plans related to the forestry sector are identified as the primary guiding frameworks. These include the 2018 Forest Law, the Myanmar National Forestry Master Plan (2001-2031), the Myanmar Rehabilitation and Reforestation Program (MRRP) (2017-2027), the finalised National Reducing Emissions from Deforestation and Forest Degradation (REDD+) Strategy, and the Land Use Policy (2016), which will be further supported by a new National Land Law currently in development. After an approval process extended until the end of 2020, the submission of the NDC document, encompassing the FOLU sector, took place under the guidance of the interim NUG of Myanmar. Despite the recognition of the FOLU targets enhancement, there remains a lack of clarity surrounding the fundamental ideas that underpin the enhancement and endorsement of contributions from the FOLU sector in the 2020 Myanmar NDC, as presented by the NLD Government and subsequently submitted by the interim NUG of Myanmar.

According to Laudari et al. (2020), the discourse surrounding NDCs has been influenced by both political leadership and the scientific community in the global arena. In Myanmar, ECD, operating under the Ministry of Natural Resources and Environmental Conservation (MONREC), was designated as the agency responsible for developing the 2020 NDCs and was subsequently appointed as Myanmar's sole National Focal Point (NFP) for the UNFCCC in 2017. In its efforts to prepare and advance Myanmar's FOLU sector, ECD followed overarching guidance from the National Environmental Conservation and Climate Change Central Committee (NECCCCC), led by the Vice President of the NLD Government, and worked alongside development partners to secure financial and technical support. Additionally, ECD incorporated insights from relevant government agencies—particularly the FD—and from non-governmental international and local organisations involved in forestry and indigenous affairs, forest user groups, universities, and Civil Society Organizations (CSOs). This approach adhered to an all-inclusive strategy (MONREC, 2021). However, a significant gap remains in understanding the individuals or entities that influence discussions surrounding the enhancement and endorsement of targets within the FOLU sector.

According to Averchenkova and Bassi (2016), Haque et al. (2019) and Hsu et al. (2019), the formulation of NDCs necessitates coordinative and communicative spheres to engage

with various stakeholders, requiring the clarification of roles and responsibilities for non-state and sub-national actors. Furthermore, the intended and/or adopted targets of the NDCs should be supported by a collective understanding among all stakeholders, as this collaboration will facilitate their integration into both formal and informal policy frameworks (Lee et al., 2015; Röser et al., 2020; Zhang et al., 2018). To generate technical data related to forests and secure political endorsement, the ECD employed a variety of consultation mechanisms, including intensive bilateral meetings, several multistakeholder workshops, ministerial-level dialogue, and forming an ad-hoc technical team (MONREC, 2021). It is thus important to understand whether the coordination structure ECD employs effectively includes all relevant stakeholders, thereby allowing for the incorporation of their inputs to enhance FOLU targets and foster a sense of ownership among all involved parties.

Therefore, this research focuses on analysing the preparation process of the FOLU sector within Myanmar's NDCs, primarily through a discursive-institutionalism (DI) lens. This perspective allows for an exploration of (i) the ideas that frame the enhancement and endorsement of the FOLU targets, (ii) the key actors who shaped in increasing and endorsing the FOLU targets, and (iii) the ways those have been communicated within discursive spheres and among stakeholders. Accordingly, the research aims to explore the feasibility of translating enhanced FOLU targets into actionable strategies that can effectively contribute to the global temperature objectives outlined in the Paris Agreement.

1.1 Problem Statement

An enhanced NDC refers to a revised or newly established commitment that exceeds the original level of ambition and implementation of mitigation efforts, as well as adaptation strategies. This encompasses a comprehensive approach that includes clarity, transparency and understanding related to communication aspects as articulated by Fransen et al. (2021). One hundred seven countries, which account for 80.9% of global emissions, have increased their NDC ambitions (Fransen et al., 2017). The choice of parties to pursue economy-wide or sector-wide contributions may stem from their goals of achieving more substantial mitigation efforts, enhancing adaptation planning, and fostering transparent communication. Additionally, there are several motivations for aiming to strengthen their ambitions: these include demonstrating

climate leadership, building on initiatives from subnational and non-state actors, attracting climate finance and investment, and encouraging broader engagement among key ministries and stakeholders, as highlighted by Fransen and Waskow (2021).

Among the primary economic sectors identified by the Intergovernmental Panel on Climate Change (IPCC) as significant greenhouse gas (GHG) emitters, the forest sector, through deforestation and forest degradation, accounts for nearly one-fifth of all GHG emissions each year (“Forests can help us limit climate change – here is how | UNDP Climate Promise,” n.d.). According to Declaration Assessment Partners (2024), total emissions from deforestation activities reached 3.8 billion metric tons of CO₂ equivalent in 2023. Notably, approximately 2.1 billion metric tons of CO₂ on an annual basis is contributed by the degradation of tropical forests, based on findings by Pearson et al. (2014). In contrast, forests can be instrumental in global climate mitigation efforts by implementing emission reduction and carbon removal strategies. Between 2000 and 2019, forests acted as vital sinks, absorbing nearly 16 billion metric tons of CO₂ annually and currently sequester 861 billion metric tons of CO₂ within their branches, leaves, roots, and soils (“Forest Carbon Storage, Explained - Woodwell Climate,” n.d.). Forests also offer a myriad of services that support billions of livelihoods and bolster the global economy by providing essential resources such as clean water, cultural spaces and materials upon which humanity relies (“Forests can help us limit climate change – here is how | UNDP Climate Promise,” n.d.). The IPCC underscored that the Paris Agreement obligated signatory parties to achieve net zero greenhouse gas emissions by the mid-21st century (Masson-Delmotte et al., 2019). This stipulation necessitates that, in the forthcoming decades, any residual emissions produced by these parties must be offset by an equivalent volume of carbon dioxide removed from the atmosphere, thereby ensuring a balance in the global carbon cycle. The land sector thus plays a pivotal role of removing CO₂ from the atmosphere as sinks that facilitate carbon sequestration within soils, vegetation and organic matter, as underscored by Prajapati et al. (2023). Significantly, global forest ecosystems' conservation, restoration, and sustainable management are integral to fulfilling the international climate objectives delineated in the Paris Agreement (Rynearson et al., 2024).

The 2014 New York Declaration on Forests and the 2021 Glasgow Leaders' Declaration on Forests and Land Use have consequently prompted policymakers, alongside a diverse array of stakeholders, including corporations, CSOs, and Indigenous Peoples

(IPs)' groups, to establish ambitious objectives aimed at halting and reversing forest loss and degradation by the year 2030 (Rynearson et al., 2024). Notably, 49% of the updated NDCs incorporate specific quantitative targets directed at mitigating emissions associated with forest loss. These encompass multiple sectors, notably Agriculture, Forestry, and Other Land Use (AFOLU), FOLU, as well as Land Use, Land Use Change, and Forestry (LULUCF) which are being addressed undertaking various strategic measures, including the establishment of protected areas (47%), the implementation of sustainable forest management practices (47%), and the adoption of REDD+ initiatives (39%) (Rynearson et al., 2024). Besides, the importance of marginalised groups has been realised in a significant proportion of NDCs, with explicit references to gender integration in 79% of cases and acknowledgment of Indigenous peoples and local communities in 54% (Rynearson et al., 2024). Despite these proactive measures and the commitments proclaimed by numerous political leaders, alongside urgent appeals for forest conservation, forest ecosystems' ongoing devastation and degradation occur at an alarming pace globally.

In Myanmar, forest resources cover approximately 42.19% of the nation's total land area, translating to an estimated 28.5 million hectares, as referenced in FAO (2020). However, the forest sector in Myanmar, especially under the FOLU category, represents a critical source of GHG emissions, primarily driven by commodity-induced deforestation (MONREC, 2021; "Myanmar Deforestation Rates & Statistics | GFW," n.d.). Prescott et al. (2017) posited that deforestation dynamics within a country can be profoundly influenced by shifts in political and economic frameworks. Historically, from 2011 until the onset of the coup, Myanmar has undergone a multifaceted transition characterised by four primary shifts: a transformation from war to peace, a progression from authoritarianism to democracy, a movement from centralised to decentralised political authority, and a period of economic deregulation (Prescott et al., 2017). These transitions have impacted the country's forest sector. Firstly, the realisation of peace can have complicated implications for forest ecosystems, particularly with respect to the allocation of agricultural concessions in specific regions. This phenomenon is notably illustrated by how previous ceasefire agreements have been utilised to facilitate the establishment of farming concessions in formerly contested areas and the subject to forest conversion. Such developments frequently occur at the expense of smallholder land rights and the preservation of forested areas (Woods, 2011). Secondly, the

decentralisation of forest management was set to emerge as a vital element of Myanmar's democratic transition. However, existing governance models within significant land and forestry policy reforms tended to adopt a predominantly top-down approach, which may undermine the legitimacy of these reforms (Prescott et al., 2017). Additionally, while forest resources are intricately linked to the local communities that depend on them for their essential needs, limited rights are given mainly to community-managed forests, leaving individuals without recognised usage rights beyond these designated areas. On the other hand, local communities also view efforts to establish Protected Areas (PAs) on land outside government jurisdiction—particularly in regions such as Tanintharyi and Kachin—as encroachments designed to strengthen governmental control over their ancestral lands (Prescott et al., 2017).

On the other hand, significant policy reforms took place during the transition period in Myanmar's forestry sector. One notable initiative is the log export ban implemented in 2014, which has served as a catalyst for re-evaluating and advancing Myanmar's Forest Policy, initially established in 1995. The revised framework seeks to broaden its focus to include ecosystem services and equitable benefit-sharing among stakeholders (Prescott et al., 2017). In December 2011, Myanmar became a partner country in the UN-REDD Programme, engaging in activities to prepare for REDD+ implementation. These efforts target critical areas such as reforestation, forest rehabilitation, resource assessment, establishing a national forest monitoring system, and initiatives to mitigate climate change. Furthermore, the Forest Department (FD) launched the Myanmar Reforestation and Rehabilitation Programme (MRRP), which is set to run from 2017-18 to 2026-27 with domestic funding, aimed at restoring degraded forest ecosystems (MONREC, 2019). Notably, some non-state armed groups, such as the Karen National Union (KNU), have also developed their own resource management laws, policies, and protected areas. These groups often demonstrate a greater capacity to safeguard forest resources compared to the central government, as indicated by (Prescott et al., 2017).

The establishment of Environmental Conservation Department (ECD) in 2012 represents a significant milestone in the realm of environmental initiatives during the transition period. Initially, the ECD collaborated with the Department of Meteorology and Hydrology (DMH) to facilitate international climate cooperation until 2017. Following that, the ECD is solely responsible for global communication with and reporting to the UNFCCC. This includes preparing national reports, such as National Communications

(NCs), Biennial Transparency Reports (BTRs), historically referred to as Biennial Update Reports (BURs) and Nationally Determined Contributions (NDCs). Despite these efforts, the ECD faces considerable challenges, particularly regarding its ability to address climate change, such as in the participation of international negotiations (MONREC, 2018). There is also a general lack of capacity within other ministries and agencies, along with limited initiatives by the ECD to communicate negotiation outcomes to other national institutions and stakeholders (MONREC, 2018). Although there has been some advancement in developing national sectoral planning capacity, integrating community perspectives and concerns is still significantly underdeveloped in ECD (MONREC, 2018).

While undergoing a gradual transition until early 2021, Myanmar encountered abrupt political instability, culminating in a military coup on February 1, 2021. As an interim government, the NUG subsequently guides the MONREC in presenting the NDC to the UNFCCC. The continuous efforts to establish a federal democratic union through a democratic pathway facing prevailing challenges, combined with the intrinsic characteristics of the NDCs, which involve modifying contributions on a five-year basis, necessitate a comprehensive assessment of the preparatory processes involved in the NDC formulation. Given its critical role in numerous features of Myanmar's social and economic development interlinked with political changes, prioritising the forest sector is paramount in this context. A thorough assessment of the stakeholders involved, the specific narratives they construct, and the mechanisms employed to communicate these narratives constitute a foundational step in this study. This approach not only facilitates a deeper understanding of the stakeholder dynamics but also provides critical insights for strategic planning aimed at updating FOLU targets in accordance with the foundational principles of a democratic federal union in future contexts.

1.2 Purpose of the Study

As the formulation process plays a significant role in shaping policy outcomes, with key participants, ideas, and discursive practices serving as essential components, this qualitative research aims to evaluate whether this formulation process can effectively translate enhanced FOLU targets into actionable ones. Building on the overarching goal of this study, we will pursue the following three specific objectives:

- (a) To understand the ideas related to framing the FOLU sector in order to enhance its targets rather than focusing on the inclusion of additional sectors,

- (b) To identify the key actors engaged in enhancing and approving the FOLU sector's conditional and unconditional targets and,
- (c) To analyse whether the coordination methodology could reflect an all-inclusive approach and integrate the voices of all relevant sectors, securing the sense of ownership by all pertinent stakeholders.

2. RESEARCH DESIGN

2.1 METHODOLOGY

In this qualitative study, we find that employing key-informant interviews is particularly advantageous. This method allows us to gather comprehensive and detailed insights into the formulation process (Merriam and Tisdell, 2016). By engaging with experts in the field, we can delve deep into significant challenges and pressing issues, uncovering nuanced perspectives that might otherwise remain hidden. Furthermore, this research paved the way for informed recommendations grounded in the rich expertise of the participants, ultimately enhancing our understanding and informing future practices.

2.2 Data Collection

Qualitative data is defined by its rich, descriptive insights expressed in the participants' own words (Merriam and Tisdell, 2016). To meet the objectives of this research, data were gathered through semi-structured individual interviews, which effectively combine elements of both structured and unstructured interview formats (Merriam and Tisdell, 2016). We thoroughly gathered background information related to FOLU sector preparation to support the interview preparation. Subsequently, we organised the questionnaires around three main subjects: the interviewee's background, climate change and forest governance at both national and global levels, and the institutional instruments—such as policy frameworks, stakeholders, and target-setting. Additionally, we sought suggestions and opinions regarding future FOLU sector preparations. The set of questions was designed to effectively guide us in obtaining the necessary information, while remaining open-ended during the interviews.

We strategically appointed a single interviewer with an extensive background to maintain consistency. This interviewer carefully avoided leading questions that might skew participants' responses. At the same time, the interviewer adhered to a list of open-ended questions that were centred on the research topic.

The individual interview we chose transcended a simple conversational exchange between two people, necessitating a significant degree of knowledge and skill on the interviewer's part. It offered profound insights into each participant's perceptions, understandings, and experiences. Moreover, it created a sense of safety for interviewees, encouraging them to express themselves more openly.

During the political crisis, Zoom’s video and audio-conferencing platform has gained significant popularity. Research has indicated that this method is well-received by participants (Archibald et al., 2019). A key advantage of using Zoom is that it fosters a quick rapport, as participants often feel more at ease without the pressure of face-to-face interactions. The interview data were documented through handwritten notes and primarily relied on both audio and video recordings. These recordings were invaluable in accurately transcribing the participants’ responses (Merriam and Tisdell, 2016). By transcribing the interviews, we also gained an early advantage in the data analysis. This means we are already well-immersed in the data when it comes to formal analysis.

2.3 One-on-One Interview

Eleven participants, who contributed to the data process, facilitated discussion, and actively engaged in consultations, as well as in the approval and communication of the document, participated in a recorded one-on-one interview lasting approximately an hour, with their consent. If necessary, a follow-up interview was arranged based on the individual's willingness to provide additional detailed information and share their extensive expertise.

2.4 Sample Population

Merriam and Tisdell (2016) articulated that qualitative research utilises purposeful sampling, a strategy intentionally designed around the questions posed. It is important to note that there are no strict or universally applicable guidelines concerning the ideal number of participants needed for these types of studies, enabling a flexible approach depending on the research context.

In the current study, the sample population consisted of a carefully selected group of individuals who possess first-hand knowledge and expertise in forest carbon accounting, forest sector governance in Myanmar, and/or domestic and international climate governance. These participants were chosen due to their involvement throughout the formulation process and the significance of their roles at each stage. There were eleven individuals who met the study’s criteria, and they were invited to take part. Demographic data concerning the participants’ professional and educational backgrounds was intentionally limited for illustrative purposes. However, Table 1 provides details about the organisations where the participants were employed.

Table 1- Participants' Organisation

Organisation	Number of participants
Ministry of Natural Resources and Environmental Conservation (MONREC) led by NLD	3
Ministry of Natural Resources and Environmental Conservation (MONREC) led by NUG	3
Donor Agencies	4
Local Non-Governmental Organisation	1

2.5 Recruitment and Informed Consent

As the primary instrument for gathering data, upholding ethical standards is of utmost importance (Merriam and Tisdell, 2016). Most participants engaged in each phase of the formulation process, conducted under the guidance of the National League for Democracy (NLD) and the National Unity Government, have developed solid relationships with specific team members. To adhere to the ethical practices, an information sheet was thus provided in advance, detailing the benefits of the study and clarifying that no risks are anticipated. In addition, participation in the survey is entirely voluntary, with participants retaining the right to withdraw at any time. After reviewing the information, participants were given a consent form to read and sign only if they agreed to partake in the study.

2.6 Confidentiality and Data Storage

Ensuring the confidentiality of participants and their data is critical to conducting research studies guided by important ethical considerations (Merriam and Tisdell, 2016). To achieve this, all relevant documents, including signed consent forms, were secured using advanced data protection measures on iCloud. This approach not only protects the privacy of our participants but also safeguards the integrity of the research by maintaining high standards of security and confidentiality throughout the entire research process and even after its conclusion.

In the interest of protecting participants' identities, each individual was assigned a pseudonym such as Respondent 1 (R1), to anonymise their responses effectively. Once the interviews were transcribed, we took the careful step of permanently deleting the corresponding audio files to eliminate any risk of unauthorised access after transcribing. Additionally, all communications via email or social media platforms were promptly erased immediately after the data collection concluded, ensuring no trace of participant information remained.

2.7 Data Analysis

As highlighted by Merriam and Tisdell (2016), the fundamental objective of data analysis is to delve into the data to reveal underlying themes. These themes serve as crucial insights that can directly inform and address specific research questions, ultimately enhancing our understanding of the subject at hand. The process begins with a comprehensive reading of the transcribed interviews, during which detailed preliminary notes are taken to familiarise the participants' narratives.

In her 2016 work, Saldana emphasised the crucial role of creating coding categories to organise interview data systematically. To achieve this, an open coding approach was employed. During this process, the specific sections of the text—typically comprising phrases or complete sentences—were identified and highlighted using a variety of colours to differentiate between different themes and ideas. Each highlighted segment was then assigned a shorthand label or code, capturing the essence of the concept articulated in that part of the transcript. This method allowed us to distil complex information into more manageable and interpretable units.

Then, we organised the data according to the codes we had identified, enabling us to develop a clear and concise overview of the most critical points and recurring three key themes: (a) national context, (b) capacity and authority and (c) inclusive communication.

2.8 Theoretical Framework

Discursive Institutionalism (DI) fundamentally recognises the significance of discourses in shaping political and social phenomena. It further examines the institutional contexts within which these discourses emerge, are articulated, and ultimately become entrenched in social practices. This theoretical framework emphasises the interplay between discourse and institutional structures, suggesting that the articulation and

dissemination of ideas are not only influenced by but also actively shape the institutional landscape (Arts and Buizer, 2009; Schmidt, 2008).

In the DI approach, discourse is understood as a communicative process through which individuals formulate, shape, and exchange their ideas. In this framework, institutions are defined by the norms, laws, conventions, and procedures that either support or contest these discourses (Arts and Buizer, 2009; Schmidt, 2008). Actors possess communicative skills that enable them to navigate and shape the logic of discourse within their respective institutions. Through their discursive practices, they can maintain and transform these institutions' structures and norms. Consequently, their engagement in discourse can serve as a catalyst for institutional change, highlighting the interplay between individual agency and structural dynamics.

Embracing DI offers valuable insights into the structuring and sharing of discourses and ideas among actors, as well as their transmission to the public sphere (Carstensen and Schmidt, 2016; Panizza and Miorelli, 2013; Schmidt, 2008). It also highlights how these discourses are established or contested within an institutional context through repetitive processes (Laudari et al., 2020). Additionally, DI can elucidate how fundamental discursive practices can either facilitate or hinder the effectiveness of policy documents. We employ the DI approach as following steps (Figure 1):

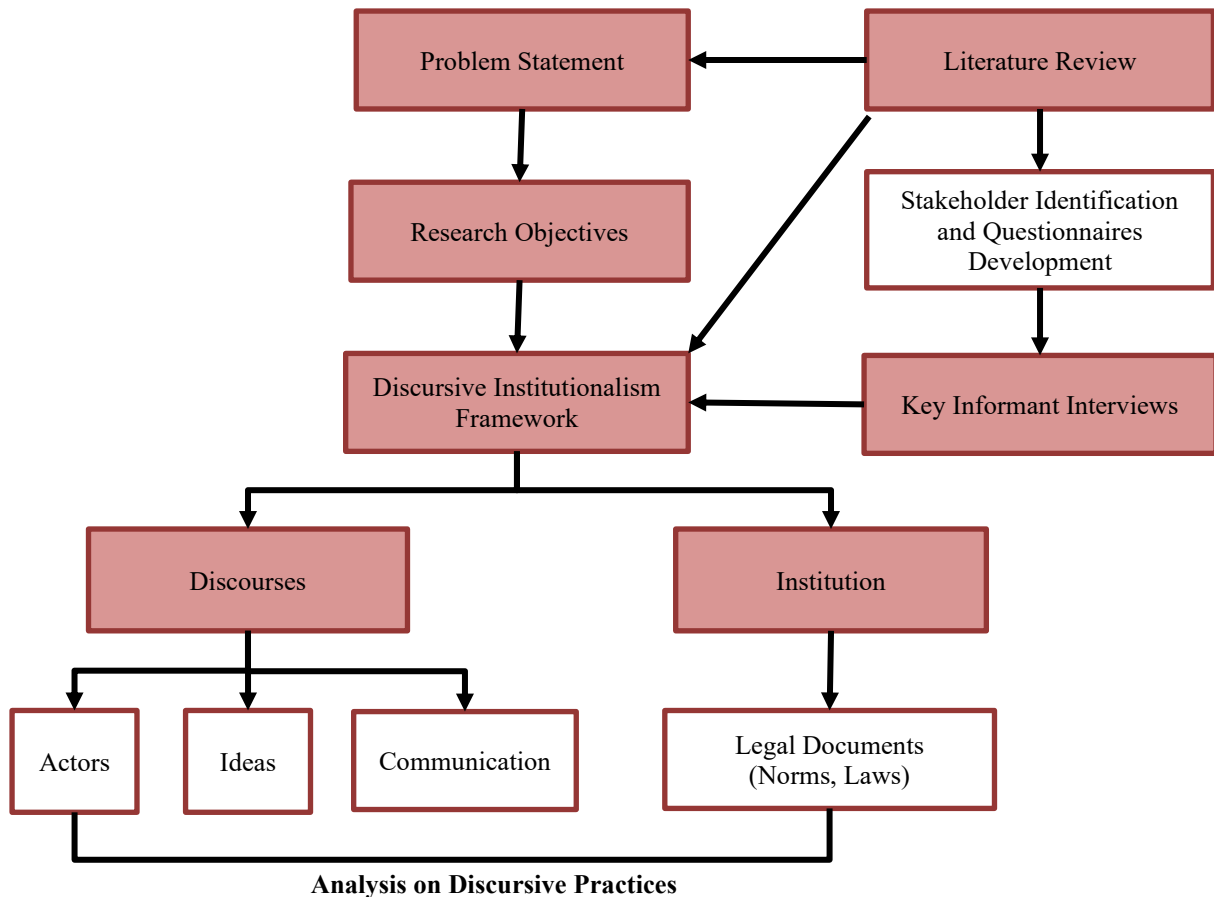


Figure 1 Research Methodological Framework

2.9 Research Questions

This qualitative key informant interview aims to gather in-depth insights into the perspectives and experiences of knowledgeable individuals engaged in FOLU sector preparation. By engaging these informed participants, we seek to explore their viewpoints on critical aspects of the sector formulation and its implications for the country’s climate commitments. To guide our investigation, we utilised a set of research questions as an interview guidance, which are based on the following three general questions:

RQ1: How was the enhanced FOLU sector in Myanmar’s NDC positioned within the context of climate change and forest governance and development pathways?

RQ2: Who was instrumental in shaping and enhancing the targets of the FOLU sector?

RQ3: How were these elements communicated to various discursive spheres and stakeholders building upon the existing institutional arrangements?

3. RESULTS

3.1 Theme 1: National Context

The national context emerges as a fundamental theme in the analysis of narratives that shape enhancing the FOLU sector. This theme underscores the significance of enabling policy reform conditions, socio-economic factors, political shifts and inherent forest features that collectively influence the dynamics of narratives. Through a comprehensive examination of these narratives, we gain insights into how national contexts can shape the strategic enhancement of the FOLU sector.

The principal aim of Research Question 1 was to explore the narratives surrounding ideas that influenced and endorsed the enhancement of the FOLU sector's contributions—especially mitigation contributions and communication aspects—within Myanmar's climate and forest governance and development priorities. Firstly, participants were requested to articulate their opinions on the underlying reasons for enhancing the FOLU sector.

Respondent 1 (R1) started sharing his perspective on socio-economic challenges in terms of adopting a sector-wide approach instead of aiming for comprehensive economy-wide contributions, stating,

“As a Least Developed Country (LDC), Myanmar did not have to take an economy-wide approach. It would prioritise sectors.”

Additionally, R1 shared the perspective on why Myanmar included quantified emissions in its 2020 NDC based on the concept of progression in terms of communication. R1 expressed that

“as an LDC, detailed calculations were considered unnecessary, and establishing policy targets was considered adequate. However, “the process was intended to evolve over time.”

In discussing the importance of prioritising FOLU targets in the 2020 NDC, Respondent 8 (R8) echoed the perspective of the former National Focal Point (NFP), R1, regarding potential economic implications and stated,

“the forestry sector has to be bolstered by moderating the agriculture sector's impact, ..., there would be a potential economic burden on the country and local farmers”.

Agreeing with the NFP's idea, R8 affirmed that "it aligns with the country's needs" and "the approach of strengthening target for the FOLU sector is well-justified", mentioning that "according to the ongoing updates to the GHG inventory for Myanmar, in which agriculture, livestock, and forestry sectors are responsible for the highest emission levels."

In contrast, reflecting on Myanmar's initiative results regarding GHG calculation from the 2012 Initial National Communications (INCs), R5 shared a view about "the forest sector as a carbon sink, which supports enhancing the FOLU targets." Additionally, R5 highlighted several other aspects – notable progress in "policy reforms" directed at "promoting forest sustainability", particularly during the "*tenure of the NLD government*", as well as the potential for "close communication" between the ECD and the FD, given that both operate under the guidance of the "same minister" – which are instrumental in advancing the FOLU sector's contributions.

Respondent 10 (R10) shared insights on the current socioeconomic and demographic conditions, stating that,

"population density is very less compared to other countries, but dependency on forest is high, ...economic activities are very limited, ... so forestry is one such area which can play a key role in NDC."

In addition, R10 articulated the significant interrelationship between high-quality forest data and the establishment of a critical sector as part of national contributions and drawing from his personal experience, and R10 mentioned that,

"the forestry sector is key to this whole document because the kind of data available in Myanmar on the forestry sector is of very high quality".

R1 expressed the perspective that this enhancement represents a rational approach, highlighting the advantages of forest resources and stating,

"the most cost-effective modality of mitigation ... several significant benefits, including the generation of revenue streams for various communities, ranging from Indigenous populations to local stakeholders ... the role of FOLU in promoting biodiversity, combating desertification, and supporting the attainment of Sustainable Development Goals (SDGs), thereby contributing to the well-being of life on Earth, and the opportunity to secure carbon credits over

a period of 40 to 50 years, underscoring the long-term advantages of investing in forest resources”.

Further, R1 posited that a comprehensive reform initiative within the forestry sector serves as a fundamental driver for the progression of the FOLU sector by stating that,

“those were positive signals in terms of how they would contribute to Myanmar's FOLU sector targets, ... so building on that, it was contributing to the NDC targets here, so that was a very important crucial part, I would say.”

Similar to R1, regarding the REDD+ mechanism, one of the key initiatives during the reform period which becomes later the key policy framework for enhancing the FOLU sector, R8 echoed the interest and narrative of a prominent political figure from the MONREC about REDD+ by stating that

“his advocacy was that REDD+ is the only one solution to address global warming, offering a true 'win-win situation'. And during that time, the term “REDD+” had the prominent power of effectively drawing international financial support for Myanmar’s efforts in forest sustainability”.

In addition, R5 elucidates the underlying intentions and the focal person’s concerning data management from the forest department and;

“the Monitoring, Reporting, and Verification (MRV) system was advanced under the REDD+ framework beyond prior forest cover assessment processes for long-term objectives. This initiative was subsequently complemented by establishing the Forest Reference Emission Level, alongside implementing a forestry inventory. The Forest Department approached this systematically, following a step-by-step methodology to ensure alignment with fundamental data principles, including consistency, complementarity, transparency, and other critical factors”.

R1 also reiterated the agreement on enhancing the FOLU targets from a donor agency because it aligned with its organisational goals – enhancing agroforestry and promoting mangrove reforestation efforts. R1 echoed the narrative:

“enhancing forest cover in Myanmar represents an excellent opportunity for them to engage.”

R1 also highlighted the underlying perspective of the Forest Department about considering international support in addition to domestic resources for establishing the FOLU targets by stating that

“we had the government from the forestry that was really engaged in this calculation process with us. ... So, they said if there were ample resources and enough things to address the drivers of deforestation and forest degradation, then Myanmar would be able to achieve net zero deforestation by 2030, but if not, then it would go up to 2045, was how we discussed. So, ... we put a conditional and unconditional one”.

In addition to the ideas that strengthened the FOLU sector, participants were encouraged to share their perspectives on the feasibility of these enhanced mitigation contributions. Respondent 2 (R2) stated,

“I believe achieving enhanced contributions is quite challenging.”

And, R2 elaborated on this by noting that “forest monitoring is ineffective at the local level, leading to a data gap between national reports on reforestation and replanting efforts and the actual forest conditions on the ground.” Moreover, she noted that “the management of reforestation efforts has proven to be inadequate.”

In contrast to R2's perspective, Respondent 4 (R4) argues that

“the enhanced contributions would lead to more practical outcomes, as these contributions stem from domestic policies, strategies, and master plans that are effectively being implemented.”

Similarly, R5 acknowledged that “these enhanced targets would be achievable”. However, she noted the “potential financial challenges” required to implement them. R5 reflected on “extensive discussions that led to revising the timeframe for achieving net zero deforestation from 2030 to 2045 on the conditional option, based on the national context and needs.”

Like R5's concerns about financial resources, Respondent 6 (R6) believed “various contextual factors could impact the effective implementation of targets”. These critical elements may include “government budgeting,” “the government's vested interest,” and “collaboration with other development partners.”

Furthermore, participants were queried regarding their personal experiences and perceptions concerning the degree of interest displayed by decision-makers in

endorsing and prioritising the FOLU sector within their agendas, as opposed to other competing development priorities. Respondent 3 (R3) articulated the perspective that the international climate regime, characterised by its significant authoritative capacity, serves to motivate decision-makers to prioritise climate change within their developmental agenda by stating that,

“as a Party to the International Climate Convention, which has proven to be more active and influential than other international agreements, Myanmar has a compelling motivation to implement domestic climate change strategies. In the national context, policies and plans related to climate change are potentially more advanced than other initiatives, including waste management strategies and Environmental Impact Assessment guidelines ...”

In addition, R3 has consistently expressed the view that imposing deadlines on international commitments is of greater importance than the significant suffering endured by the people of Myanmar due to the effects of climate change. R3 stated, “I believe the government of Myanmar has reacted to climate events only after they have occurred, rather than taking proactive steps to prepare for them. With deadlines for national reports, such as the NDC, approaching, Myanmar is shifting its focus more toward climate change matters, but primarily on documentation tasks like drafting these reports.”

In contrast to R3's viewpoint, R1 articulated a compelling argument concerning the consensus among high-level officials to augment their contributions in light of the pressing necessity to tackle climate change. R1 asserted that

“everybody understands climate change is happening. If you don't address climate change now, your development is not going to be sustainable anymore... Two days of rain, enough to wash out everything. One cyclone, enough to wash out everything. Myanmar has the example of narrators already. ... Climate change just needs one event, ... so I think the understanding that ambitious targets must be met is there...”

In the data collection and confirmation phases of the FOLU sector preparation, many respondents expressed their experiences, highlighting the limited interest and support from decision-makers despite their intentions to enhance communication. Respondent 8 (R8) shared that

“the biggest challenge was data acquisition. However, they did not support any additional steps beyond sending an official letter”.

Also, R8 observed that “despite their attendance at the meeting, they did not articulate a comprehensive plan nor demonstrate a commitment to incorporating FOLU into their departmental strategies”.

Furthermore, R2 also reflected on the experience regarding a “delay” in confirming the data produced by the technical team. This delay was due to the “unavailability of decision-makers” who were occupied with other prioritised responsibilities, even though they were “responsible for validating the data” generated by the technical team.

Participants hold differing opinions about the support from the national-level committee known as the National Environmental Conservation and Climate Change Central Committee (NECCCCC), which was established during the administration of the NLD. R3 mentioned that

“NECCCCC fully supported the FOLU sector of the NDC preparation process in line with its working procedure, because the decision, including the needs of implementation that have to be implemented by state and regional ministers, could be made during the NECCCCC dialogue. It was the verbal directive from the vice president”.

In contrast to the perspectives presented in R3, R5 highlighted differing viewpoints regarding the importance of priorities and interests of state and regional ministers, noting:

"Chief ministers of states and regions were engaged in discussions about topics unrelated to the objectives of the meeting. This could indicate a lack of interest in addressing deforestation or perhaps an unawareness of the FOLU sector, the NDC, or the global climate framework. It might also be that these issues are not prioritised in their respective states or regions."

When examining the participants' views on the underlying interests of the NUG in the endorsement process, they share a common perspective. They believe that endorsing and communicating the NDC document was part of what could be described as addressing legitimacy concerns. Respondent 9 (R9) articulated this sentiment, stating,

"the MONREC, or more specifically the NUG, aims to demonstrate its capabilities on the international political stage while contending with issues of legitimacy."

Additionally, there is a desire to contribute to addressing the ongoing challenges regarding credentials for the position of Myanmar’s permanent representative.”

Respondent 11 (R11) affirmed that,

“this initiative likely marked the inaugural effort by the NUG_MONREC to connect with the international community actively. The aim behind this engagement was to showcase their legitimacy as a governing body, signalling their desire for recognition and support on the global stage”.

Participants delved deeper into the commitment of the political figures from the NUG. R9 shared his experience by stating,

“the unprecedented support from political leaders—such as the respective ministers, line ministers, the prime minister, the UN representative, and members of the Committee Representing Pyidaungsu Hluttaw (CRPH)—has been evident in the endorsement process, particularly in comparison to the approach taken by the former government.”

However, R11 supposed that “the FOLU sector has unfortunately been overlooked in continuous monitoring and updating”. Several factors have contributed to this oversight, as noted below:

“The priorities of the National Unity Government (NUG) have shifted towards immediate on-the-ground activities in response to the changing political landscape. Additionally, there have been concerns regarding the ministry's mandate to draft policies, which ultimately led to this responsibility being transferred to the National Unity Consultative Council (NUCC). However, there remains an unresolved inquiry regarding the awareness of the NUCC in relation to the global climate governance framework and its pertinent characteristics associated with NDCs. Furthermore, international organisations have been evaluating the extent to which the NUG can effectively assert control over various regions of Myanmar for meaningful engagement”.

3.2 Theme 2: Capacity and Authority

The second theme that emerged centred on the concepts of capacity and authority, which significantly influenced the development and support of the FOLU sector. This interplay of capacity—referring to the skills, resources, and institutional frameworks available—and authority—denoting the governance structures and decision-making power—serves as critical determinants in fostering advancements and gaining endorsement for initiatives within the FOLU sector.

The objective of Research Question 2 was to investigate the principal actors who significantly influence the development and enhancement of the targets established within the FOLU sector. R10 articulated his experience regarding the role of the focal ministry in spearheading the identification of the sectors pertinent to the 2020 NDC. It states that

“those sectors were identified by the ministry, ..., So, they identified the areas where the country should be focusing for mitigation purposes. Within this, we looked at how different sectors can come together, and overall nation level pathway can be developed”.

R1 recounted the analogous experience collaborating with the focal department, ECD, prior to initiating calculations by stating that

“we had a discussion with the department, and then based on the department’s advice, we started the numerical calculations of the sectors”.

However, concerning the facilitation of consultations, the ECD exhibits limitations in its capacity to effectively lead towards attaining desired outcomes, as underscored by the observations made by Respondents 6 and 8. R6 noted *that* “the focal person should have dedicated their time to the NDC work to avoid conflicts with other responsibilities and ensure timely progress.” Meanwhile, R8 emphasised that “as an organiser, the head of the focal agency must clearly determine which data will be utilised for each consultation, and this information should be communicated to the Minister and conveyed to the heads of the relevant line agencies prior to the consultations.”

Also, R5 emphasised that,

“The focal agency, ECD, plays a crucial role in organising the drafting of the FOLU sector. Given the limited involvement of relevant stakeholders due to other commitments, ECD should have thus provided a comprehensive overview and

clearly outlined what support is expected from line agencies. Furthermore, decision-makers need to communicate effectively with one another to ensure constructive feedback. Additionally, the head of the focal agency should possess the necessary skills and capacity for this role."

R5 also articulated the various factors that impede the effective leadership role of the ECD by indicating that

"the transition in government often necessitates a period during which decision-makers can adequately comprehend the complexities and requirements of the international climate regime. Furthermore, the ECD lacks the authority to catalyse climate initiatives by promoting engagement within development sectors. There is also an absence of a systematic framework with a long-term perspective to support the establishment of advanced targets in the FOLU sector in conjunction with the implementation of annual action plans."

With a similar viewpoint, R8 expressed "apprehension regarding the extent of authority that the ECD would possess in engaging with other line agencies." Too, R11 underscored the necessity for the focal ministry to assume a proactive leadership role concerning its responsibilities within the context of the forthcoming political regime by stating that

"the necessity of substantial authority for MONREC to effectively manage resources, including forest resources, in the context of competing development sectors. This need for robust governance becomes increasingly critical in the prospective establishment of a federal democratic framework. It is imperative that this message be conveyed to political leaders".

In addition to the "ECD being a leading role", generally, R1 articulated other engaged stakeholders, who participated in consultations and provided feedback on the drafted FOLU sector, indicating that,

"At the government level, these were the two agencies from the forest side that was main and then a little bit of agroforestry, agriculture department ... so we brought these two departments together From the UN side, it was UNREDD. UNREDD was the major stakeholder because they were already engaging in the process with the Department of Forest on drafting the REDD strategy... Then it was WWF also came into the picture ... contributing to conservation efforts in

Myanmar ... GGGI was also based at ECD... GGGI was actually providing more inputs to the agroforestry side, not the forestry because they were working on agriculture mangroves ... besides that ... consultations were further put forward, so we engaged with like the Nature Conservancy. ... There were other conservation organisations, local NGOs, local communities, and indigenous people groups also that we had to consult with. One was Point. We also engaged with them, but they were a part of providing more sociological information from the indigenous people and local communities' perspectives. And we had representatives coming from the different states also back then when we had the consultation for the forest sector... UNDP and World Bank were included, and we also had some from development agencies like JICA and Korea KOICA. I think they were also very interested in the forest side of Myanmar as well as in input cook stoves ... USAID was also coming back then. DFID was also there back then, FCDO. So, they were from the donor side also coming to this process to discuss with us how Myanmar is going to go. So, we had, the major were these five institutions on the technical aspects, but the supporting consultations from the donor angles, the multilateral angles, and the civil society, as a part of the stakeholder process”.

In the context of relevant organisations, the FD is recognised for its expertise in developing forest-related data, quantitative analyses, and human resource management. Consequently, FD played a significant role in setting and enhancing the FOLU targets, as stated by R1 that

“ A lot of work was put in by a department of the forest. They were very clear with data sets; everything they were, including the GIS information, the spatial data, and the emission factor data, was very clear to them. So, they were also discussing developing more emission factors back then. So, it was quite comprehensive. So, they had the outlined emission factors for different forest types. And I think it is quite clear ...It was very good capacity with the Department of Forest. They were very aware of the GIS Information systems about the calculation processes. They've already started the REDD+ strategy. Thus, they were on the emission target.”

Similarly, R2 articulated her experience by noting that

“the Forest Department exclusively dispatched an individual capable of validating the data; therefore, the meeting with the Forest Department proved effective.”

However, R5 highlighted the similar challenges in the capacity that both the ECD and FD have encountered, emphasizing the necessity for addressing these common hurdles and stated

“each organization faced technical challenges, particularly in data management. The forest agency primarily focused on the forest sector, whereas the focal agency for climate change, ECD, needed to address all emission sectors. Both agencies still exhibited gaps in their understanding and capacity for relevant data preparation”.

Given the intrinsic characteristics of the NDC, respondents engaged in an exploratory analysis of its technical features, articulating their technical perspectives concerning the issue of data inconsistency. R2 reflected on the data generation process by expressing that

“there was an “inconsistency” specifically within the FOLU sector, unlike other sectors such as energy. This discrepancy arose between the data developed under the Forest Reference Emission Level (FREL), which had already been submitted to the UNFCCC by the Forest Department, and the data being generated for the Second National Communication (SNC) currently being prepared for submission. Both data sets are intended to contribute to the GHG calculations for the NDC. The inconsistency in the data presents a problem, as all reports ultimately need to be submitted to the UNFCCC.”

In addition, R1 shared the significant degree of data inconsistency encountered during the initial calculations. It states that

“basically, Myanmar was developing SNC back then. The major concern was on the emission factors, ..., we had two different results. What was coming from the NDC calculation and what was coming from the SNC was totally different. So, we had to look into the alignment of data back then. We should not be representing a separate data set. And, NDC came as the target form”.

R10 viewed the primary underlying cause of data inconsistency as an inadequate comprehension of the reporting requirements established by the global climate regime of the UNFCCC by stating that

“back then, there was a limited understanding of how to interpret the consistency of the data presented in each national report—such as the National Communication, Biennial Transparency Report (BTR), and Nationally Determined Contributions—that each Party is required to submit to the UNFCCC”.

When participants were asked about the involvement of government stakeholders from other line sectors in the formulation of the FOLU sector, they articulated their experiences, indicating that these stakeholders primarily engaged in one-off participatory activities, and their engagement was characterized by a lack of clearly delineated responsibilities about the NDC. R2 shared that,

“The participants involved in the consultations for the FOLU sector were not identical across different meetings and often did not adequately prepare the necessary data to contribute effectively. Furthermore, there was a lack of communication regarding the discussion points from one participant to the next, resulting in fragmented discourse throughout the consultations”.

Similar to R2, R5 highlighted the inconsistency in stakeholder engagement, pointing out that

“the primary roles of participants may not align with the FOLU sector. As a result, during discussions about data, these individuals often struggled to provide the required information. Besides, they did not relay discussion outcomes to and then confirm from their agencies after the meetings. This pattern persisted, with a different representative attending each time.”

In examining the contributions of various international non-governmental organizations (NGOs), both R6 and R5 articulated a consensus regarding “their influence” in formulating the FOLU sector. They underscored “the government's constraints”, particularly in terms of “technical expertise about international reporting guidelines and financial resources, which necessitated the involvement of NGOs in the drafting process.”

R1 elucidated the individuals who played a pivotal role within the technical team, stating that

“UNREDD was supporting the Department of Forestry, I would say, on the REDD strategy...So, in setting up the technical team, it was UNREDD and the Department of Forest that was engaged in that strategy process. Then, the Ministry of ECD came in play with the NDC process because NDC was the focal point... So from ECD's side, it was WWF was supporting that process, GGI was also supporting that process, So it was Department of Forest and ECD under the same ministry that was the key focal agencies which were engaged at the top level. From the REDD side it was UNREDD and then from the NDC side, it was GGI and WWF and then below that we had the different stakeholders because Myanmar was also drafting its national communications, but we also had a little bit of inputs from them.”

R6 shared the role of the technical team in preparing the FOLU sector which states that

“the core technical team completed the key responsibility of drafting the FOLU sector within the expected timeframe, especially the calculations”.

However, R5 identified a deficiency in the technical expertise of the international expert supporting the focal agency by stating that

“there was a technical insufficiency which resulted in an inadequate reflection of the actual circumstances faced by the nations involved and underscored several critical information gaps. This is because they had to align with the overarching objectives of their respective organisations and the funding sources’ objectives they had to rely on”.

And R8 emphasised the exercise of power within the technical team, indicating that

“the role of the national coordinator of the SNC is limited to listening to pre-decided matters without the opportunity to speak or contribute to.”

Respondent 7 (R7) articulated that the involvement of organisations representing Indigenous Peoples (IPs) in the consultations for the FOLU sector was significantly constrained by stating that

“the Indigenous Peoples organisation itself could not represent all ethnic groups, and the ECD did not adequately incorporate their input concerning the terminology associated with Indigenous peoples. Although the organisation was

invited to participate in the meeting and was requested to provide feedback on the drafted report, their contributions were not sufficiently recognised.”

When participants were queried regarding the involvement of the NECCCCC in formulating the FOLU sector, respondent R1 articulated that...

“Based on my experience, all these high-level political committees have just the role of approval, providing the final guidance only. They probably don't have the overall technical expertise, so that's why they have the sectoral ministries and the departments advising that committee, and they have the experts in that process.”

In addition, R1 expressed the inherent authority of the high-level committee, presided over by the vice president, asserting that

“these high-level political committees are a good advantage in saying that there is a big level of national ownership. That's very good. If the Vice President approves this document, it has the highest level of political ownership ... That is important also because we are living in a world of bureaucracy. What the Director General (DG) says, versus what the Minister says, versus what the President says, makes so much difference; it's a political statement. So, all those authorities matter a lot in the bureaucracy and political leadership as well”.

Likewise, R9 shared the experience that the endorsement and communication processes could be significantly “optimised through the facilitation provided by the Prime Minister’s office of the NUG”

3.3 Theme 3: Inclusive Communication

The third theme encompasses the principle of inclusiveness within multi-level communication, which fosters a collective sense of ownership among all pertinent stakeholders within the FOLU sector. This collaborative engagement is essential to ensure that diverse perspectives and interests are integrated into decision-making processes, thereby enhancing the legitimacy and effectiveness of initiatives within this domain.

The objective of Research Question 3 was to examine the communication strategies employed by the focal agency. Participants highlighted the methodologies utilised, which included coordinating a variety of consultation formats—such as bilateral, multilateral, and high-level meetings—as well as establishing an ad-hoc technical team dedicated to data generation. This latter process primarily focused on calculating greenhouse gas (GHG) emissions and removals, involving weekly sessions and the formal issuance of official letters for data requests and recommendations.

R1 interpreted the rationale behind the emergence of the technical team by stating that...

“basically, the idea was started off with the work ... the Paris Agreement was binding the two things. Because Myanmar was a party to the Paris Agreement, REDD was a voluntary engagement; it was not mandatory, but NDC is a mandatory requirement to be submitted, so using that as a basis, the technical team started engaging in that, because Myanmar had the intention to engage in REDD, so the data was obtained from that, and based on that data, the targets were set.”

In evaluating the effectiveness of organising the technical team and their meet-up every week, both R6 and R1 articulated an optimistic perspective. R6 remarked that

“the team’s performance was commendable in drafting the FOLU sector, even despite the frequent unavailability of key personnel from the government due to competing commitments.”

Likewise, R1 expressed the technical team's success in aligning data from the SNC and UNREDD of Myanmar by mentioning that

“so that was how it was set up, just to bring consistency in the work that we are doing to ensure that the data is on the right track. Remember when we were

doing one of the consultations, the Second National Communication had a totally different set of data, and the Department of Forest was not agreeing. So, the idea was to bring it all together and ensure that the technical committee had similar data. So, the accounting was done by the Department of Forests. National Communications needed to complement that...”

However, R5 highlighted “the restricted communicative authority of technical personnel, as individuals were not permitted to interact directly at the horizontal level.” Besides, “engagement was required to go through the head of the organisation, which resulted in unintended delays.” Furthermore, R5 expressed concerns regarding the direct involvement of international technical experts from INGOs with high-level decision-makers. It was noted that,

“When international technical experts present their views without first consulting with the relevant departmental expert teams, it can lead to a gap between local or national contexts and international standards or experiences. In such instances, departmental technical experts must proactively assess the understanding and knowledge of decision-makers concerning these contexts, aiding them in comprehending the existing national conditions and our capacities to make informed decisions suitable for the local environment.”

The ECD initiative adopted an inclusiveness approach in its multilateral consultations; however, participants have articulated the need for a more concentrated emphasis on a bottom-up approach to foster inclusivity. R8 provided insights, suggesting that...

“the preparation of the FOLU sector prioritised quantifying contributions rather than focusing on the principle of inclusiveness. However, it would be better if it focused on informing state-level stakeholders about NDCs”.

Likewise, R4 also expressed “concern about the lack of attention given to local communities' voices during the FOLU sector's drafting.” However, R4 suggested that

“since the NDC is a living document, future revisions could enhance community involvement and incorporate their perspectives, provided there is no political instability.”

R7 posited that “the principle of stakeholder inclusiveness should extend beyond merely acknowledging local communication strategies to encompass the essential

participation of the private sector.” In addition, to represent the views of all relevant stakeholders and listen to their concerns using a bottom-up approach, R7 noted that

“there was no mechanism in place to facilitate this approach, and stakeholders were also not prepared to accept the bottom-up methodology. Additionally, there is still a need to strengthen the capacity for implementing this approach.”

Linking to the formulation process of the guiding policy framework, particularly in relation to REDD+, R1 articulated the perspective on stakeholder involvement,

“so, I'm assuming the Department of Forest, when it was drafting the REDD strategy, had consultations with multiple stakeholders. It could be NayPyiTaw, but also across multiple states ... if it had done all the consultations with the multiple stakeholders, it was the appropriate tool to feed into the NDC; that was my understanding, ... but many states probably did not understand what REDD Strategy is, what NDC is. My understanding is that it was very centrally based; only NayPyiTaw was hosting it, but Kayin and Shan probably have very little knowledge or no knowledge, I would say. That was my understanding”.

R5, given its alignment with national commitments, viewed that

“a hybrid methodology—incorporating both top-down and bottom-up approaches—would be the most suitable framework for the forthcoming preparation of the FOLU sector.”

In addition to technical consultations, ECD organised high-level dialogue as the nature of the NDC encompasses technical and political elements. However, respondents expressed that the intended objectives of each High-level meeting often fail. R5's view is due to that

“it is likely attributable to their limited understanding of international climate governance as well as the need for awareness activities aimed at informing decision-makers about the intrinsic technical-political characteristics of the global climate regime.”

R8 articulated “the necessity for informal engagement or preliminary consultations among high-level individuals to facilitate meaningful dialogue.”

During the data request process, ECD engaged in both formal and informal communication strategies. As noted by R6,

“ECD dispatched an official request letter to pertinent government agencies. In addition, informal discussions were held between the designated representative from the primary agency and the relevant line departments when deemed necessary. Nevertheless, it was indicated that further strategies extending beyond these methods are still requisite.”

Participants identified a significant ineffectiveness in the engagement of participants within the negotiation process, primarily due to the absence of clearly defined roles and responsibilities. As noted by R8,

“Changes in resource persons frequently occur in response to shifts in government or are contingent upon the perspectives of departmental leadership.”

In addition, R8 shared “the experience of the instability introduced by fluctuating personnel assignments grappling with overwhelming fatigue, stemming from the need to repeatedly clarify the same information and address inaccuracies in the data presented. This cycle of redundancy not only drained the energy of those involved but also hindered productive dialogues and effective preparation processes.” R2 expressed similar concerns regarding the “ineffectiveness of the consultations”, by stating that “in subsequent meetings, different individuals who were unaware of the previous talks were sent, resulting in a notable lack of cohesion.”

4. DISCUSSION

Theme 1: National Context

Fransen et al. (2019) underscore the necessity of a systematic evaluation of advancements in the implementation of established climate change targets and strategies as a foundational step for developing more robust contributions. However, it appears that the preparatory process pertaining to the FOLU sector in Myanmar did not adequately incorporate insights gained from prior assessments of mitigation activities within the forest sector. Rather, it seems that the existing REDD+ strategy, which remains in the finalisation phase, serves as the primary framework for target establishment. Therefore, this dataset is integrally associated with the National GIS and the forest inventory data pertaining to FREL, which have been established within the framework of REDD+. Hein et al. (2018) indicated that approximately 56 countries incorporating the FOLU sector targets in their initial Nationally Determined Contributions (NDCs) have made explicit connections or references to REDD+.

Furthermore, it is imperative to undertake systematic reviews of changes in national contexts, political priorities, and developmental agendas. This approach is essential for accurately identifying emerging opportunities and synergies that facilitate formulating emissions reduction strategies aligned with national objectives (Fransen et al., 2019). It seems that the focal agency of ECD and/or the focal person considered the potential obstacles the nation's primary economic sector of Agriculture could face while concurrently recognising the positive developments in the political will that facilitate conditions favourable to forest sustainability and climate governance. This dual focus is evident as they undertake updates to the FOLU sector.

Political shifts can have profound implications for national climate commitments, often resulting in policy instability or regression ("Global Climate Agreements: Successes and Failures | Council on Foreign Relations," n.d.). This phenomenon is exemplified by the United States, the world's second-largest emitter of greenhouse gases ("Global Greenhouse Gas Overview | US EPA," n.d.), which has experienced significant policy reversals regarding international climate agreements ("Global Climate Agreements: Successes and Failures | Council on Foreign Relations," n.d.). Notably, in 2017, then-President Donald Trump withdrew the country from the Paris Agreement, which marked the United States as the sole nation to exit the accord. Conversely, former President Joe

Biden reinstated the country's participation on his first day in office. However, it is essential to note that Trump retracted the United States' commitment again at the commencement of his second term in 2025. In the case of Myanmar, which contributes a relatively minimal share of global emissions, it has maintained its political commitment to climate agreements despite the political upheaval stemming from a military coup. Notably, this commitment appears to serve a legitimacy-seeking purpose amid significant challenges related to ongoing civil conflict. As such, Myanmar's political will to continuously implement and monitor the FOLU sector, along with subsequent updates, appears to be deprioritised, illustrating the intricate nature of climate politics. It highlights the intersection of domestic governance challenges with international environmental responsibilities.

Theme 2: Capacity and Authority

Cornejo (2025) emphasises the importance of adhering to the TACCCC principles—transparency, accuracy, completeness, consistency, and comparability—in the context of GHG accounting. Myanmar faces challenges, particularly regarding data inconsistencies, as it transitions to enhancing target-setting and communication aspects within the FOLU sector. These issues appear to stem from a limited understanding of international climate reporting standards. However, experts from donor agencies and specialised personnel from the Forest Department are well-positioned to address the existing inconsistencies in accounting practices related to the FOLU sector.

To effectively enhance GHG inventories over time, it is crucial for countries to recognise the significance of the various components involved in their preparation and management (Cornejo, 2025). These components encompass data collection and management practices, including archiving, quality assurance and quality control (QA/QC), verification processes, key category analysis, recalculation protocols, uncertainty assessment, and strategic improvement planning. It is noted that the ECD has not yet established a comprehensive data archiving system. Additionally, the capacity of ECD personnel and associated stakeholders is constrained, hindering the ability to maintain consistency in the data presented within each national report submitted to UNFCCC. However, the FD has established a Monitoring, Reporting, and Verification (MRV) framework in accordance with the REDD+ strategy. This framework is

designed to ensure alignment with established standards for accurately assessing variations in forest carbon stocks, as highlighted by the Cornejo (2025).

A focal agency for climate change needs to possess the requisite authority to integrate climate actions across various sectors, thereby ensuring a cohesive and effective response to climate challenges. In the Philippines, the Commission responsible for Climate Change operates under the direct supervision of the President, functioning as the primary policy-making body to incorporate climate change considerations into national, local, and sectoral development frameworks. It demonstrates moderate effectiveness in coordinating among government agencies and maintains a broad reach across all ministries. The MONREC, especially ECD in Myanmar, appears to have limited authority to elevate the sustainable prioritisation of FOLU target enhancement within the political agenda, particularly in relation to the competing objectives of various line departments. It also faces challenges in securing the necessary financial resources crucial for effective implementation and the ongoing enhancement of the FOLU sector.

Theme 3: Inclusive Communication

In addition to their technical features, NDCs are intrinsically political in nature, despite their technical features, as they commit parties to specific climate actions, drive economic and social transformations, and function as formal communications to the United Nations Climate Change Secretariat (Fransen et al., 2019). Engagement from the offices of the prime minister or president is thus crucial for initiating the enhancement of NDCs, as it can facilitate cooperation among stakeholders within governmental and non-governmental spheres. In the context of the FOLU sector drafting, the ECD garnered support from a Vice President-led committee during the tenure of the National League for Democracy (NLD) government. Besides, the ECD received backing from the prime minister of the interim NUG for approval and communication steps. However, there is still a question about the extent of this support: whether it supports securing buy-in from influential ministries responsible for planning and finance and integrating the enhancement of the FOLU sector into broader sectoral plans at state, regional, and local levels.

Fransen et al. (2019) highlighted that a critical initial step in enhancing NDC contributions is establishing a transparent and inclusive process for NDCs. In formulating such a process, it is essential to delineate institutional arrangements that

facilitate effective leadership and coordination, engage diverse stakeholders, and develop a comprehensive work plan that explicitly defines roles and responsibilities associated with the enhancement efforts. The ECD undertook a leadership role in preparing the FOLU sector, guided by the directives of the existing national-level committee. The ECD collaborated with the Forest Department, which functions as the principal implementing agency and successfully secured technical and financial support from various donor agencies. Moreover, the ECD has adopted an all-inclusiveness strategy to foster collaboration with other relevant sectors and stakeholders. However, it is noted that the ECD has not established specific institutional arrangements to delineate clear roles and responsibilities among stakeholders, although an ad-hoc technical team could be formed to address various technical issues, particularly those related to data inconsistencies. This has led to sporadic stakeholder participation during consultation processes, where the technical team operates with precisely defined roles and responsibilities. Furthermore, there appear to be notable deficiencies in the effective implementation of a vertical approach, especially in engaging local communities and stakeholders within the broader framework of inclusivity adopted by the ECD. This oversight may hinder the potential for constructive participation and collaboration in the planning and executing the FOLU initiatives.

5. LIMITATIONS AND RECOMMENDATIONS

5.1 Limitations

A sample size of 11 individuals who actively engaged or frequently participated in preparing the FOLU sector was utilised for this study. This preparation process occurred under the leadership of the National League for Democracy (NLD) government and subsequently under the interim National Unity Government (NUG). The current regime is facing considerable security challenges and political pressures, which has resulted in the unavailability of essential from governmental and non-governmental sectors. This situation posed notable challenges in reaching out to the intended resource persons, especially from the focal agency who continuously guided the drafting process and also facilitated the preparation process of the FOLU sector. Although these constraints limited the scope of participant selection, they did not introduce bias into the data collection process.

Furthermore, the reliance on online platforms for conducting interviews presented additional difficulties, as unstable internet connections adversely affected the authenticity of the interviewees' responses.

Another significant challenge was the language barrier, as transcribing respondents' answers from Burmese to English was necessitated. This translation process risked the loss of conversational nuance and the emotional context of the respondents' contributions.

However, these factors similarly did not contribute to bias in the collected data. Despite these methodological limitations, the research study illuminated the underlying interests in enhancing the FOLU sector, identified key influential actors, and assessed the efficacy of collaboration methodologies within this context.

5.2 Recommendations

It is essential to emphasise that Lovrić and Lovrić (2018) articulated the significance of framing ideas and their interplay with expansive discursive contexts as pivotal for addressing the diverse needs of all stakeholders and fostering public-political engagement. Similarly, Montfort et al. (2025) posited that adopting framing strategies can positively influence perceptions regarding climate change issues and their corresponding solutions, thus augmenting support for climate-related policies. Framing

may manifest in various forms, such as accentuating particular arguments within political discourse, altering the message sender (source cue), and modifying perceived distances—temporal, spatial, and social—pertaining to a given issue. In light of Montfort et al. (2025) recommendations, we advocate for the focal agency to employ the most effective framing strategies to enhance and implement initiatives within the FOLU sector, thereby ensuring sustainable political endorsement and support from federal entities. Furthermore, assessing the potential ramifications on development pathways and human resource capacities stemming from the ongoing civil conflict is imperative. Consequently, prior to any subsequent revisions of the FOLU sector, we recommend conducting a comprehensive needs assessment methodology that will elucidate the challenges and existing capacities of domestic resources related to international reporting requirements, thereby facilitating the effective framing of ideas and strategies.

It is important to note that the Federal Democracy Charter underscores the principle that “the State shall have the right to independently manage the exploration, extraction, selling, trading, preservation, and protection of natural resources within the State.” Thus, according to the Federal Charter, we recommend that a central authority at the Union Level gives state agencies the same authority to establish and promote the FOLU sector’s contributions. Bull et al. (2018) stated that engaging multiple stakeholders in the policy-making process promotes the long-term effectiveness of policies by aligning public policy with the needs of the end-users. Furthermore, as the original stewards of all land and natural resources are the residents of the State, we also recommend that state agencies facilitate the empowerment of local communities in decision-making processes regarding the enhancement and implementation of the FOLU sector. Ojha et al. (2016) highlighted that the minimal involvement from relevant stakeholders in creating an NDC undermines the sense of agreement for the document, leading to missed opportunities to make it inclusive, consensual, and actionable. To ensure meaningful engagement and amplify the voices of stakeholders, we recommend implementing a comprehensive series of capacity-building initiatives and awareness campaigns tailored to each stakeholder group's current knowledge level.

Aryal et al. (2020); Laudari et al. (2020) propose that a well-structured institutional framework can significantly strengthen the implementation of NDC targets. In light of this assertion and considering the anticipated political landscape of a democratic federal union, we recommend conducting stakeholder mapping. This process should

occur in conjunction with delineating clear roles and responsibilities. Moreover, we recommend the necessity of developing a specific institutional arrangement for the revision and implementation of the FOLU sector, leveraging the existing coordination to ensure effective governance and execution of targeted contributions.

6. CONCLUSIONS

This study focused a limited understanding of the fundamental concepts that contributed to enhancing and supporting the FOLU targets across different political contexts. Furthermore, as the transition to a democratic pathway unfolds, it is crucial to grasp the roles of the influential actors who have endorsed the FOLU sector enhancement. Additionally, there was a gap in understanding the effectiveness of an inclusive approach during the shift to decentralised political authority.

The purpose of this qualitative key informant interview study was to explore whether this formulation process – encompassing key participants, ideas, and discursive practices – can effectively translate enhanced FOLU targets into actionable ones by analysing the perceptions and experiences of the participants who were actively involved or frequently participated in the FOLU sector preparation.

Three themes arose from this study. Theme 1: national context highlighted the socio-economic factors, enabling policy reform conditions and abrupt changes in political landscape are the key influential narratives that shape enhancing the FOLU sector. Theme 2: capacity and authority explored that the focal agency of leading NDC - was the key actor in prioritising the FOLU sector given the limited capacity and authority and that the key implementing agency of forest sector, the Forest Department, which has a significant capacity for data but limited knowledge of international reporting, was the influential entity in setting conditional and unconditional FOLU targets. It also highlighted the substantial role of an ad-hoc technical team in completing the technical perspective of the FOLU sector within the timeframe. Theme 3: Inclusive communication revealed securing significant financial and technical support from donor agencies but a constrained approach to horizontal coordination, characterised by ambiguous roles and responsibilities and a limited, decentralised approach regarding vertical integration, leading to a lack of sense of ownership by relevant stakeholders.

This qualitative key informant interview recommends a comprehensive needs assessment of available resources before preparing the next round of the FOLU sector needs to be conducted. Combined with the assessment results, the focal agency should employ the most appropriate framing strategy to secure support from relevant entities in a future democratic federal union. It also recommends empowering states, including local communities, is crucial in achieving the FOLU targets. A series of capacity-building and awareness campaigns tailored to the knowledge of each relevant entity/stakeholder needs to be organised. It also concludes with recommendations for conducting stakeholder mapping and structuring the specific institutional arrangement encompassing horizontal and vertical approaches, delineating clear roles and responsibilities.

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