



**Ministry of Forests and Soil Conservation
REDD-Forestry and Climate Change Cell**

**Development of a Measurement, Reporting
and Verification (MRV) System for Emissions
and Removals**

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Working Paper N. 3

**Institutional Assessment of Relevant Actors within and outside the
Ministry of Forest and Soil Conservation (MFSC)**

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REDD and Climate Change Cell

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Acronyms and Abbreviations

AFO:	Assistant Forest Officer
ANSAB:	Asia Network for Sustainable Agriculture and Bio resources
BAU:	Business as Usual Baseline
BZCFUGs:	Buffer Zone Community Forest User Groups
CBFM:	Community Based Forest Management
CBFMUGs:	Community Based Forest Management Users Groups
CCB:	Country Capacity Building
CF:	Community Forest
CFI:	Continuous Forest Inventory
CFOP:	Community Forest Operational Plan
CFUGs:	Community Forest User Groups
CoFM:	Collaborative Forest Management
COPs:	Conference of Parties
CSO:	Civil Society Organization
DBH:	Diameter at Breast Height
DBMS:	Database Management System
DDC:	District Development Committee
DFO:	District Forest Office/Officer
DFRS:	Department of Forests Research and Survey
DOF:	Department of Forests
ESMF:	Environmental and Social Management Framework
ESS:	Environmental and Social and Safeguards System (ESS)
FAO:	Food and Agricultural Organization of the United Nations
FAO FP:	FAO Forestry Paper
FCPF:	Forest Carbon Partnership Facility
DSCO:	District Soil Conservation Officer
FECOFUN:	Federation of Community Forest Users Nepal
FGD:	Focus Group Discussion
FMU:	Forest Management Unit
FRA:	Forest Resources Assessment of Nepal Project
GHG:	Greenhouse Gas Emissions
GIS:	Geographic Information System
GLCN:	FAO/UNEP Global Land Cover Network
GPG:	International Panel on Climate Change: Good Practice Guidance
GPS:	Geographic Positioning System
ICIMOD:	International Center for Integrated Mountain Development
IPs:	Indigenous Peoples
IPCC:	Intergovernmental Panel on Climate Change
LCCS:	Land Cover Classification System
LhFUGs:	Leasehold Forest User Groups

M and MRV:	Measurement and Monitoring, Reporting and Verification
MIS:	Management Information System
MRV:	Measuring, Reporting and Verifying
NAFIMS:	National Forestry Information Management System
NFCAG:	National Forest Carbon Action Group
NEFIN:	Nepal Federation of Indigenous Nationalities
NGO:	Non-Government Organization
NORAD:	Norwegian Agency for Development Cooperation
PSP:	Permanent Sample Plots
REDD:	Reducing emissions from deforestation and forest degradation
REDD+:	The REDD"+" is more than just avoided deforestation. It is tied to measurable and verifiable reduction of emissions from deforestation and forest degradation as well as sustainable management of forests, conservation of forest carbon stocks and enhancement of carbon stock
RL/REL:	Reference Emission Level
R-PP:	Readiness Preparation Proposal
SLMS:	Satellite Land Monitoring System
UNFCCC:	United Nations Framework Convention on Climate Change
WISDOM:	Wood fuel Integrated Supply and Demand Overview Mapping
WWF:	World Wildlife Fund

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Institutional Assessment of REDD Relevant Actors within and outside the Ministry of Forest and Soil Conservation (MFSC)

1. Background

Introduction

The REDD+ architecture has been defined as a system of actors and institutions.

Actors could be individuals and/or organizations, within or outside the government active from national to local levels. They could be government organizations (GOs), Civil Society organizations (CSOs), non-government organization (NGOs) and/or private firms.

Institutions are interpreted as conventions, norms and/or legal rules that form the actors and regulate the relationships between them (Scott 1995; Vatn 2005). In REDD+, institutions are intended to manage i) flow of information on changes in forest carbon stocks between levels and ii) flow of incentives to carbon rights holders;

Institutions could be built on existing institutions and would need to include:

- 1) A REDD+ policy steering authority at central level and institutions to manage technical, financial, administrative and supervisory aspects at sub-national and local levels
- 2) An MRV system institution - that will gather and verify information on actual reductions in forest emissions and report to national and international counterparts;
- 3) A REDD+ payment institution responsible to channel funds from international to sub-national and local level according to the volume, location and type of emission reductions

Institutional Assessment is concerned with ways in which institutions are formed and function. It basically looks into i) distribution of rights and responsibilities among actors, ii) cost of coordination among them (transaction cost), and iii) ways in which the actors' interest, motivation and perspectives will be influenced by the institutional structure. An associated purpose of institutional assessment is to provide clarity as to whether the institutions put in place are legally appropriate and are widely supported within the democratic governance framework.

The national REDD+ architecture is interpreted as:

- i. An institutional structure defining the capacities and responsibilities of different actors including GOs, NGOs, CSOs and private sector involved in REDD+; and
- ii. Rules that define the interaction among actors. Such rules clarify how the coordination between actors including communication, negotiation and control and management will take place.

The operational format of these institutions will be reflected in the cost of coordination and the motivation cost of human resources within institutions.

Purpose

MRV system as an institution forms one main pillar of National REDD+ architecture. This working paper is intended to present an institutional assessment of entities that exist at multiple governance levels, and have or are likely to have a stake in REDD+ MRV system in Nepal. Hence, this assessment intends to focus on actors that will or are likely to engage in gathering and verifying information on actual reductions in forest carbon emissions, processing the information and reporting to national/international counterparts.

In order to justify this assessment in existing contextual setting, a brief review of major actors of Nepal's REDD forestry is presented here including their structures, objectives and functions. A national REDD+ architecture within which the MRV system is likely to get institutionalized is conceptualized on the basis of the provisions made in the R-PP being implemented. Finally an institutional structure for effective operationalization of MRV system is presented building on likely vertical and horizontal interactions among relevant actors.

Nepal's Forests as per Management Regime:

All forests of Nepal other than those grown on private properties are formally understood as "national forests".

Within the boundaries of national forests:

- Forests inside the protected area system are termed "**protected areas**" and governed under the national parks and wildlife conservation act (NPWC Act);
 - Forests handed over to communities for management and use as per the community forestry related provisions of Forest Act 1993 are termed "**community forests**"; **Block forests** in *Terai* and *Siwaliks* (Chure, southernmost fragile hills) are managed by forestry administration in partnership with relevant district level stakeholders (formally organized in to District Forest Coordination Committee DFCC) and the beneficiary groups ,"**CoFM user groups**";
 - All remaining forests managed or yet to be managed by the forestry administration are termed "government-managed forests";
- Wildlife outside protected areas come under the protection jurisdiction of the Department of Forests;
- Management, harvesting and collection of medicinal plants and non-timber forest products in government managed forests, collaborative forests and community managed forests is regulated through management/operational plans of these forests.

2. Stakeholder Assessment

Multi-sector and Multi-level Actors of REDD+ in Nepal

Within Nepal's broader governance structure, there exist REDD+ actors from different sectors of the government, bi-and multilateral development agencies, non-government and civil society organizations at different levels as shown in the table below:

Table 1: Multi-sector and Multi-level Actors in Nepal's REDD+ Architecture

Levels/Sectors	Government Actors	Bi/Multi-level development Agencies/Projects	NGOs/CSOs
Central level	Ministries of: <ul style="list-style-type: none"> • Forest and Soil Conservation, • Agriculture and Cooperatives • Science, Technology and Environment • Energy, • Land Reform • Water Resources • Physical Infrastructure & Transportation • Local Development 	<ul style="list-style-type: none"> • DFID • UNDP, • World Bank, • FINNIDA 	<ul style="list-style-type: none"> • International Center for Integrated Mountain Development (ICIMOD) • WWF Nepal • FECOFUN, ANSAB, • Forest Action ACOFUN, • NEFIN, DANAR Nepal, NAFAN and IPs organizations in Nepal • Associations of TFPs and NTFPs traders, tourism and hydro-power promoters etc.
Regional level	NRM related regional directorates Regional Forestry Directorate, Training Center	Relevant projects in the region	NGOs/CSOs engaged in REDD relevant projects in the region
District level	DDC, NRM related district offices	Forestry/NRM/CC adaptation projects,	District chapters of national NGOs/CSOs
Local Level	Forest and NRM related offices		CBFM practicing Communities e.g. (CFUGs, CoFUGs LhFUGs, religious forest user groups, IPs managed forests and relevant CBOs)

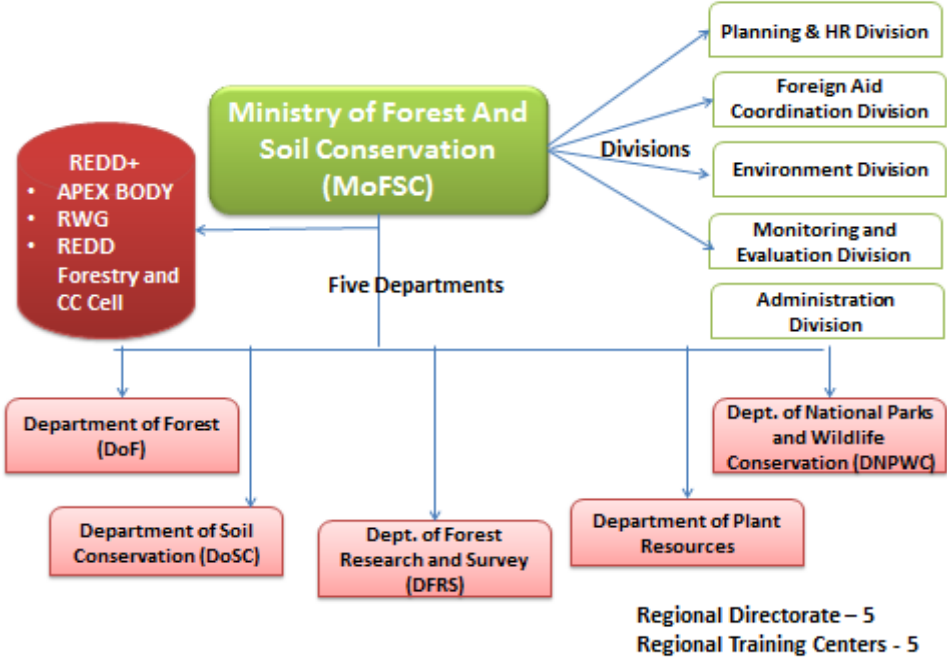
REDD+ Stakeholders in Nepal's Forestry Sector

1. MFSC and its Departments

MFSC is Nepal's highest forestry sector authority mandated for sustainable development of country's forests and watersheds including biodiversity and NTFPs conservation. It strives to promote participatory approaches and contribute in poverty reduction through promotion of forest based enterprises and employment generation.

MFSC is the main actor in Nepal's REDD+ architecture with its four technical divisions (Planning and HR, Foreign Aid Coordination, Environment and M&E) and five departments [1) Department of Forests (DoF), 2) Forest Research and Survey (DFRS), 3) National Parks and Wildlife Conservation (DNPWC), 4) Soil Conservation (DoSC), and 5) Plant Resources DoPR] charged with policy, strategic and operational level steering for the overall development of forestry sector.

Figure 1: Institutional Structure of Ministry of Forest and Soil Conservation of Nepal

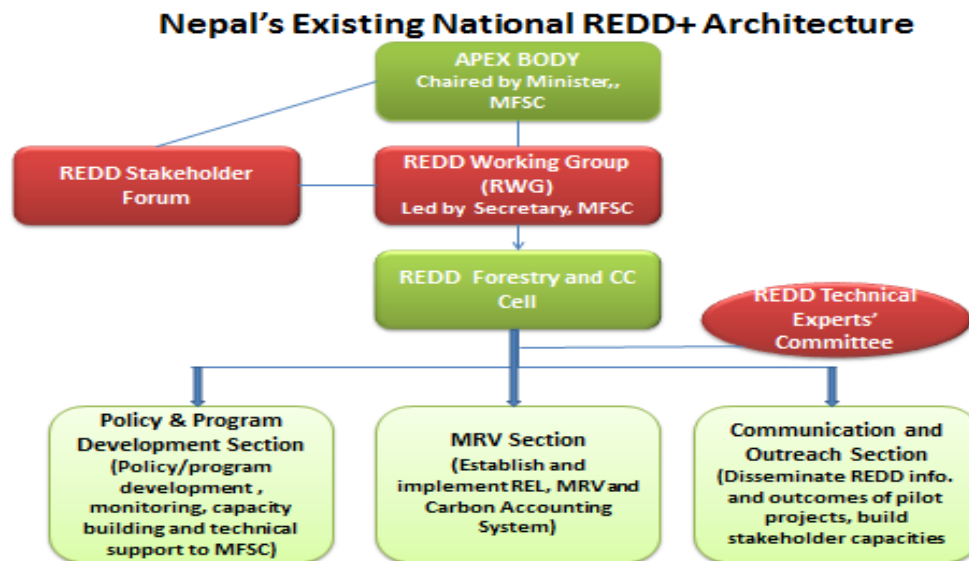


In its pursuit to participating in global REDD+ mechanism and readiness preparation, in January 2009, Nepal's MFSC created a three-tiered institutional structure¹. It comprises:

- 1) A 49-member multi-stakeholder and multi-sector high level policy steering, coordination institution named "Apex Body" chaired by the Forest Minister;

¹ This institutional structure is yet to get legally formalized. The REDD forestry and CC Cell does not exist in the GoN approved organogram of MFSC, and the staff therein are brought on deputation from its various departments .

- 2) At operational level, a REDD Working Group (RWG) from within the national REDD+ stakeholder forum chaired by the Forest Secretary; and
- 3) A REDD Forestry and Climate Change Cell as a coordinating entity;



Department of Forests established in 1952 is the oldest and largest department of MFSC mandated to operationalize the forest management and development policies of Nepal. It has three technical divisions e.g. i) national forests, ii) planning and monitoring and iii) community forestry in the center, and district forest offices (DFOs) in all districts. Each DFO has one or more sub-district or Ilaka offices and each ilaka office has two or more range posts with a team of field level staff led by a forest ranger.

DoF is mandated for protection, development and utilization of forest resources in Nepal. In doing so it needs to ensure that i) all forest based basic needs of local people are met in a sustained manner, ii) forests, wildlife, soil and biodiversity within forest areas is conserved and iii) forestry sector contributes in poverty reduction through employment and income generation activities. DoF with its outreach and staff all over country provides technical, administrative and management support in all forest management regimes and their user groups and stakeholders, and this responsibility makes it the biggest operational level stakeholder of REDD forestry.

Department of National Parks and Wildlife Conservation (DNPWC) oversees the management of over 32,000 sq. km (>22%) of forests in 10 national parks, 3 wildlife reserves, six conservation areas and 1 hunting reserve. It is mandated for protection of forests within protected areas (PAs) and wildlife there in. There exist delineated buffer zone forest areas in case of specifically the national parks where communities live within and surrounding the forest areas. These communities are directly involved in managing community forests within the buffer zones. Forests in PA system and more

specifically the community managed forests make DNPWC a potential actor and stakeholder in REDD forestry.

Department of Soil Conservation and Watershed Management (DoSCWM) strives to support Nepal's forestry sector through conserving soil and utilizing watershed resources. It has district offices in 56 out of 75 districts of the country. It works closely with communities in critical watersheds at district level and provides technical assistance to communities in farm land protection, soil and water conservation and a range of conservation activities. DoSCWM has potential stake in REDD+, though not directly.

Department of Plant Resources (DPR) Established in 1960 and previously known as the department of medicinal plants, the DPR is mainly engaged in undertaking research and development of plant resources. It does not seem to have any significant stake in REDD forestry.

Department of Forest Research and Survey (DFRS) originated as a division of DoF named "forest resources survey" in early 1960's and got additional mandate including research component in late 1970's. It emerged as a department recently in 1998.

DFRS has been identified as the **national implementing agency for MRV system** in Nepal's R-PP being implemented. Accordingly, the R-PP envisages its prime responsibilities in activities e.g., i) periodic execution of forest assessments for deforestation and degradation monitoring, ii) design, maintenance and operationalization of National Forest Information Management System (NAFIMS), iii) coordination for the collection and flow of sub-national level information, and iv) dissemination of NAFIMS and MRV system deliverables through web portal. DFRS will house the MRV institution of National REDD+ architecture and therefore, will need to build its institutional and the technical capacities to run in the long run the NAFIMS and MRV system in an effective, efficient and transparent manner accordingly

Forestry sector has semi-government agencies e.g. the Timber Corporation of Nepal (TCN), Forest Production Development Board, Herbal Plants production and Processing Center (HPPCL). These agencies could also be considered having some direct and/or indirect stake in REDD+.

2. REDD+ Stakeholders in Other Development Sectors of the GoN

Drivers of deforestation and degradation of forests are claimed being as much located outside the forestry sector as within forestry sector. Land and water and associated natural resources related policies and programs of different sectors geared at country's economic growth and development often have remarkable bearing on forests and carbon emissions. It has been globally recognized that sectors other than forestry must

also design and implement REDD supportive policies and measures that promotes green economy to eliminate the drivers of deforestation and degradation of forests. In this vein, **sector ministries e.g. Land Reform, Agriculture and Cooperative, Water Resources, Physical Infrastructure and Transportation, Local Development, Energy and Science, Technology and Environment** have been identified as actors of REDD+ at national level. **National Planning Commission (NPC)** and the **Ministry of Finance (MoF)** also play significant roles in Nepal's development planning and financing which justifies their inclusion in the list of actors of Nepal's REDD+. Relevant line ministries having presence in regional, district and local levels by default become the actors of REDD+. Accordingly, the district and local government bodies e.g. district and village development committees (DDCs and VDCs) also emerge as the REDD+ actors.

At the national level, many semi-government agencies e.g., Nepal Tourism Board (NTB) and associations e.g. Hotel Association of Nepal (HAN) are also likely to impact and get impacted due to REDD, and therefore they could also be considered as stakeholders of REDD+ at national level.

3. REDD+ Stakeholders amongst International Development Agencies

Multi and Bilateral development agencies e.g., UNDP, World Bank, FINNIDA, DFID, ICIMOD, and WWF Nepal have been working in Nepal in the field of climate change, natural resource management and poverty issues. UNDP has UNREDD and Poverty and Environment Initiative programs, the World Bank has been assisting through FCPF, FINNIDA is assisting in the Forest Resource Assessment Project, ICIMOD has been implementing the REDD+ pilot project in partnership with ANSAB and FECOFUN, DFID jointly with SDC has been assisting in the implementation of the multi-stakeholder forestry program which has a strong REDD+ component. Similarly, the WWF Nepal jointly with CARE Nepal, NTNC and FECOFUN has been implementing a USAID funded HARIYO BAN program which also has a large REDD+ component.

4. REDD+ Stakeholders amongst CSOs and NGOs

Communities² practicing community-based forest management (e.g., CFUGs, BZUGs, LhFUGs, CoFUGs etc.) are the prime stakeholders of REDD+ in Nepal as they are formally recognized community based institutions and are managing almost one third of Nepal's forests. In order to support them in terms of awareness, knowledge and

² Community in this document is interpreted in its broadest sense to include all cast, ethnicity and groups of indigenous people living in helmets of a village, with their traditional and/or indigenous rights to all and/or different parts of their forest and forest lands. They become a community for the cause of forest protection and use once they form a user group together and get involved in community-based forest management under their own institutional arrangement.

capacity and also help them safeguard their interests and concerns, many CSOs and NGOs have also done commendable work and they also merit mention as stakeholders of REDD in Nepal. This document does not deal with all such stakeholders however, attempts to present some major ones presently actively engaged in REDD+ readiness preparation.

1. FECOFUN: Established in 1995 as a nation-wide network of CFUGs to strengthen their role forestry sector policy making process, the Federation of CFUGs in Nepal (FECOFUN) claims to have transformed into a social movement organization with a membership of about 8.5 million CFUG members. It aims at developing means of livelihoods and generating opportunities to reduce poverty through sustainable management of forests. It emphasizes on approaches e.g, consensus building, wider people's participation, good governance, empowerment, self-respect and self-reliance in community-based forest and natural resources management.

2. NEFIN: Nepal Federation of Indigenous Nationalities – a member of the United Nations Working Group on Indigenous Populations, was formed in 1991 as an autonomous national level umbrella organization of indigenous peoples/nationalities. There are presently 48 indigenous peoples' member organizations from all over Nepal in its umbrella. They are represented in REDD+ multi-stakeholder forum and RWG. They have developed a 19-point position paper in the context of safeguarding their rights over land and forest resources and carbon in priority as per the ILO 169.

3. DANAR Nepal: Dalit Alliance for Natural Resources Nepal is an NGO founded by dalit's women's and forest rights activists in 2007 to advocate for and secure rights over natural resources e.g., land, water and forests. DANAR is represented in national stakeholder forum of Nepal's REDD+. It advocates for i) social inclusion and participation dalits and women in REDD processes, ii) free prior informed consent and rights to decision making, iii) alternative livelihoods options wherever REDD+ threatens the dalit's livelihoods. It also calls for effective and equitable implementation of safeguards as per social and environmental standards and improved rights of dalits in Forest Act.

4. NAFAN: National Forum for Advocacy Nepal, established in 2004 is a common forum of right-based NGOs working for socio-economic development, gender equality and access of underprivileged and marginalized communities to natural/environmental resources. It has been focusing its efforts on i) community forestry, ii) REDD forestry and CC, iii) policy analysis, dialogue, and expertise provision etc.

5. HIMAWANTI: The Himalayan Grassroots Women's Natural Resource Management Association (HIMAWANTI) is an NGO that aims to promote solidarity among grassroots women in order to enhance their access to natural resources and benefits accruing from

NRM in an equitable manner. It has district branches in about 33 districts of Nepal. It organizes a range of capacity building and networking activities for awareness and knowledge sharing on policies on NRM. Women traditionally the prime users and managers of forests at local level have important stake in REDD+ in Nepal. HIMAWANTI is a member of the national stakeholder forum of Nepal's REDD+.

6. ANSAB: Asia Network for Sustainable Agriculture and Bio-resources established in 1992, is a CSO committed to conservation of biodiversity and livelihoods improvement. Community empowerment and economic incentives are its prime approaches to promote conservation. It undertakes applied studies for the implementation of innovative and enterprise oriented solution for conservation and sustainable use of bio-resources. ANSAB engaged in a NORAD funded REDD+ pilot project in Nepal jointly with ICIMOD and FECOFUN in three pilot watersheds of Chitwan, Dolakha and Gorkha districts of Nepal. Learning generated from this pilot project is considered extremely useful for participation of community based forest managers in Nepal's REDD+. Recently ANSAB has been selected by the World Bank as the regional intermediary organization for the FCPF capacity building program for 2014/15.

7. Forest Action: Is a learning oriented professional CSO established in 2000 and actively engaged in influencing public policy process and empowering forest and natural resource dependent communities including poor, marginalized and vulnerable groups to help them take control of and play active role in forest and NRM ensuring them sustained flow of livelihood benefits. It has been playing an active role since the beginning of REDD+ process through professional contribution in the preparation of R-PP. It is represented in multi-stakeholder forum and RWG.

8. ACOFUN: Association of Collaborative Forestry Users, Nepal was established in 2007 with the initiation of collaborative forestry in Nepal. It is active in Terai and Siwalik district where block forest management under collaborative approach has been initiated. Its objective is to advocate for the rights of distant and excluded forest users in forestry related policies and programs.

9. Some other likely potential actors of Nepal's REDD+ are a) associations of private forestry practitioners, b) timber and non-timber forest products entrepreneurs and traders, 3) tourism promoters and hydro-power promoters etc. These actors are likely to come forward over the time as Nepal's REDD+ develops and takes a meaningful shape.

3. A Proposed Framework of National REDD+ Architecture

As presented in the introduction section above, it is required to build a national level institutional structure for REDD+ comprising all three elements of REDD+ architecture e.g. policy, coordination and steering entity, MRV system entity and carbon payment entity from central down to sub-national and district/local levels. The next step will be to

work out their respective functions including flow of required information among these entities both horizontally and vertically. Human resources and their capacity needs at different layers of institution including the institutional strengthening will need to be analyzed. Finally a framework of the policy/legal arrangements will have to be designed and enacted for effective, efficient and transparent functioning of the designed REDD+ architecture.

For Nepal's REDD+ architecture, R-PP emphasizes on:

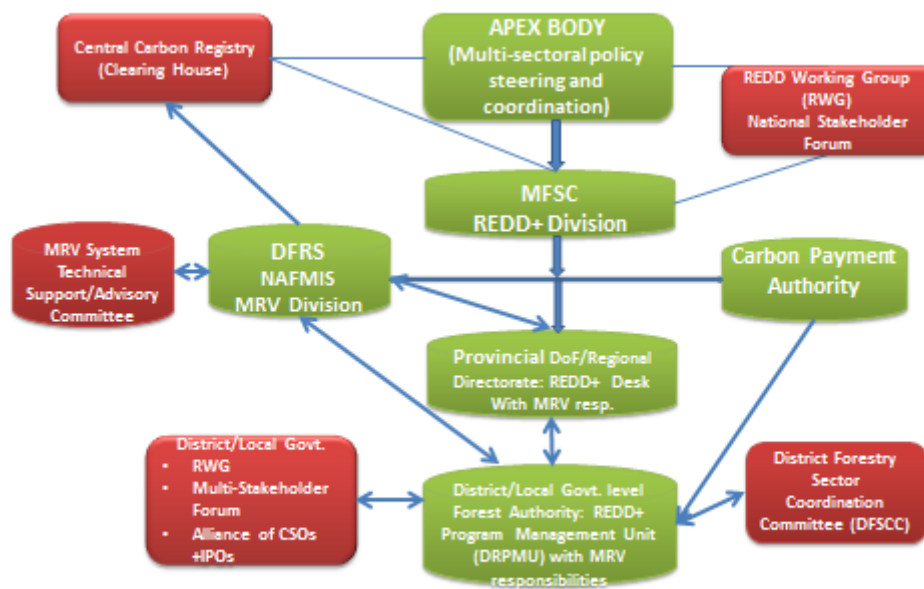
- Using existing institutional structures and arrangements to a possible extent (page 47);
- Using multi-stakeholder bodies at subnational, district and local forest management unit/community levels (page 48 -49);
- Creation of a central clearinghouse/carbon registry to work as a depository of REDD related information, allow for enforcement of standards and engage in carbon transaction (page 50);
- Ensuring that information on measurement and reporting (MR) is readily available at all levels and to all actors (page 66) including GOs, NGOs, CSOs, federations, research institutions and private sectors;
- Ensuring that local stakeholders and forest managers in all forest management regimes (e.g. CF, CoFM, government managed forests and PAs) participate and engage in field based monitoring as required and scheduled,
- Ensuring the REDD relevant data is generated through periodic monitoring of forests, through a tested and institutionalized internal verification system by the MRV implementing agency –the DFRS

National REDD+ architecture has been conceptualized in the flow chart below in line with the R-PP provisions. It comprises the three key elements of REDD+ architecture and has some salient features e.g.,

- The central carbon registry is proposed in parallel with the Apex body keeping in view that it need to be an independent body represented by multi-sector/multi-level stakeholder representatives with a separate secretariat.
- An MRV system technical support/advisory committee is proposed with an objective to fulfill its research, technology and capacity needs including institutional strengthening in future. An associated objective is to maintain transparency in

functioning of M and MRV at national level, and ensure that the perspectives of relevant MRV stakeholders and forest managers are captured in course of management, maintenance and strengthening of the MRV system on a regular and continued basis.

Representation from relevant organizations should however, be bilaterally discussed and it should be ensured that the organizations are capable, interested and willing to contribute in the strengthening of MRV system as per the objectives of the proposed MRV advisory committee. So far as the role of different stakeholders in MRV Advisory committee is concerned, the entities e.g., i) Nepal’s national information center, MoSTE, NAST, ICIMOD and WWF etc. are likely to contribute in research, technology transfer and strengthening of national MRV system; ii) Academia e.g TU/Institute of Forestry (IoF) and Kathmandu University (KU) could contribute through research and human resources development, and advise on the technological strengthening of the MRV system; iii) CSOs e.g., FECOFUN, ACOFUN, ANSAB etc. having stake in carbon forestry could bring in the forest managers’ perspectives in M and MRV system management and strengthening. This should be considered as a broad ToR for the MRV advisory committee which is likely to get further refined once a functional MRV system accumulates learning and experiences over years to come.



National REDD+ Architecture of Nepal
Proposed in line with R-PP

4. Stakeholders Analysis: M and MRV System

It emerges as an important aspect at this stage to identify who exactly are the key stakeholders of Nepal's M and MRV system, and analyze what are their stakes in it. It helps to understand how they could potentially influence and/or get influenced by the inputs and outputs of the M and MRV system and what kind of interest they have in the M and MRV outcomes.

It is difficult at this stage to gauge deep into the interests and influences of multi-level and multi-sector stakeholders of REDD+ in M and MRV system. In the matrix below however, an attempt is made here to present an analysis of stakeholders in M and MRV system:

Table: Stakeholders' Stake, Influence and Interest in M and MRV System

Stakeholder Category	Stakeholder	Stake	Influence	Interest
Government	MFSC: DFRS, DoF Other MFSC departments	Forest/Carbon enhancement, Updating/management of forest information system	Influences projects/carbon buyers, payment mechanism and reports to UNFCCC	Retain control over MRV system, share carbon benefits
	Relevant Line Ministries (section 2 above)	Carbon emission/removal accounts of their respective sectors	Policy measures having implications on carbon emissions and removals	In contributing towards green economic development
Beneficiary Groups	Community based forest managers e.g. CFUGs, CFM groups, LhFGs etc.	Ensure carbon measurement is participatory, transparent and locally governed	Local forest protection and enhancement	Get maximum possible benefits from Forest carbon payment
NGOs/CSOs	FECOFUN, NEFUG, ACOFUN, NEFIN, NAFAN, HIMAWANTI and others.....	Ensure good governance in the system in favor of IPs local forest managers and marginalized forest dependent groups	Capable of advocating and mobilizing the people and CBOs on M and MRV system related issues	Retain peoples' CBO's trust and confidence with respect to REDD+ related issues of public interest.
International Development Agencies	ICIMOD, WWF, DFID, SDC, USAID funded	Ensure SFM, livelihoods security and poverty	Influences policy processes and outcomes,	Maintain the public policy influencing

	forestry projects	alleviation; Promote science and technology, and democratic governance mechanisms	including development financing	capacity
Academia/ Research	MSTE, Kathmandu University, NAST, National Information Center of GoN	Technology transfer, Maintenance and updating of technology and synchronization of systems	Influences the technology transfer and system harmonization	Remain at the center of science and technological development

5. Proposed Institutional Framework for M and MRV System

In order to ensure effective, efficient and transparent governance of measurement, monitoring and management of data under MRV system, the R-PP has envisioned that DFRS – the national MRV implementing agency, under the overall guidance of the Apex Body will be responsible for:

1. Periodic execution of forest assessments for deforestation and degradation monitoring;
2. Designing, maintaining and operating the National Forest Information Management System (NAFIMS);
3. Coordinating the collection of sub-national level information;
4. Disseminating NAFIMS deliverables through web portal;
5. Providing technical guidance and institutional/capacity support to the parallel institutional setups at sub-national/district/local community levels.

The sub-national, district and/or local government level MRV institutional setups will act as the implementing entities to implement the decisions taken by sub-national/District Forest Coordination Committees (DFCCs). These sub-national/district and/or local level entities will have a REDD Cell (as a new section) within the DFO structure.

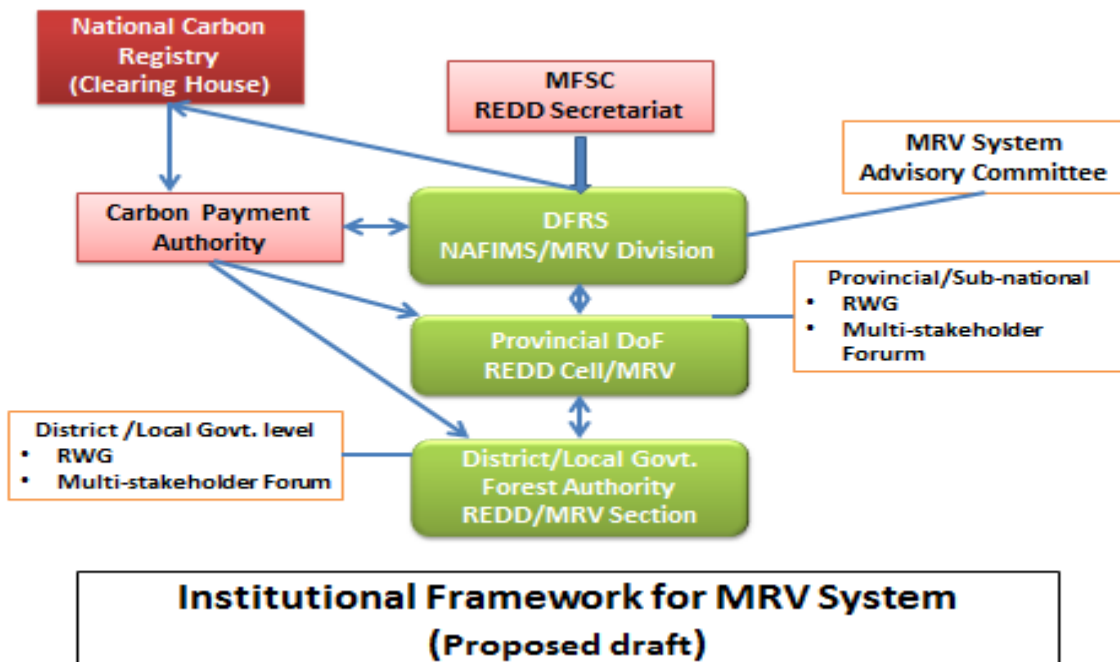
The REDD+ architecture proposed above, provides an institutional structure for MRV system. MRV will be one cabinet of a larger box of the national forest information management system (NAFIMS) presently being developed under Forest Resource Assessment (FRA) project of the DFRS. The FRA project (2010/ 2014) is expected to deliver a national forest survey and inventory mechanism with components e.g.,

- Forest cover mapping producing geographically referred information on the forest cover, its extent and quality;
- FRA composed of field sampling activity, digital sampling activity and data processing;

- Development of a Forest Information System including development of a geographically bound Forest Information System (FIS) which is able to deliver thematic maps through the internet. The NAFIMS will need to be maintained, managed and updated based on GIS/remote sensing based periodic forest cover mapping and updating the FIS based on periodic field verification of data in permanent sample plots.

The proposed institutional framework builds on the establishment of a NAFIMS/MRV Division in the DFRS. This division will be accountable to REDD Secretariat through the DFRS and get technical advice and assistance from an MRV System Advisory Committee (comprising relevant stakeholders from within and outside the government as suggested in the previous section). MRV Division will be linked with the National Carbon Registry and the Carbon Payment Authority at the national level. Within the MRV division will be internal verification and reporting units to verify and report the periodic carbon change and report to the Carbon Registry. Any independent verification will be linked with the Registry and the MRV division. At the sub-national (and/or project) and district/local government levels, sub-national/provincial and district/local government level REDD and MRV sections will work to support the MRV system and functions under the continuous guidance and supervision of their respective RWGs and multi-stakeholder forums.

Accordingly, the institutional framework for MRV system under the NAFIMS is proposed in the flow chart below:



The REDD+ architecture and the institutional framework proposed in this working paper will require discussion among relevant actors/stakeholders of REDD+ in Nepal. After having developed multi-stakeholder consensus on the REDD+ architecture and the institutional framework the next step will be:

- Elaborate all activities to be undertaken periodically and annually at a regular basis to maintain, manage and update the MRV system;
- Review existing structure of DFRS and the expertise within it, and analyse its adequacy with respect to maintaining, managing and updating the NAFIMS and MRV systems and propose required structural adjustments, if any;
- Draft functions, roles and responsibilities and capacity needs of institutions and individuals within the MRV institutional structure in its three tiers of governance;
- Work out all possible horizontal and vertical interactions among institutions to be included in required institutional arrangements
- Develop a capacity strengthening in all three tiers of governance.

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