

REDD+ in Nepal: A Brief Introduction



Government of Nepal
Ministry of Forests & Soil Conservation
REDD-Forestry and Climate Change Cell



Background

Climate change is a “change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere”. Global increase in temperature and irregularity in rainfall patterns have started affecting plants, animals and humans. Thus, it is a matter of interest for everyone to think of ways to adapt to the changes and to mitigate their effects. The Government of Nepal (GoN) has also initiated programs to address climate change.

The main cause of climate change has been attributed to human activity, especially those activities that result in Green House Gas (GHG) emission. The main sectors which contribute GHG emissions are energy (25.9%), industry (19.4%), transportation (13.1%) and forestry (17.4%). The process of reducing emissions from deforestation and forest degradation (REDD) is one of the most cost effective solutions for mitigating the effects of climate change.

Nepal has been involved in the REDD+ process since 2008. The REDD-Forestry and Climate Change Cell under the Ministry of Forests and Soil Conservation (MoFSC) has been established to oversee the REDD+ activities. The GoN aims to participate in forest carbon market by post 2014. This effort will help Nepal to access external finance for forest management activities and fulfill her obligation to mitigate climate change.

Effects of Climate Change in Nepal

Impacts of climate change in Nepal are manifold. An analysis shows that around 20 glacier lakes are highly threatened of outburst, snow is melting rapidly and glacier lakes are expanding. In addition, irregularity in rainfall has caused both extreme

flood and droughts. Changes in the precipitation patterns have had an effect on the agriculture calendar. The reported prominent effects included but not limited to: seed sowing time of crops as paddy, maize and wheat have been shifted and so have their ripening and harvesting times. Changes in flowering patterns of forest vegetation and the shift in their habitats have also been observed. This, in turn, has affected the food chains of wild animals, birds and insects. It has been reported that the incidence of climate change related diseases such as Kalaazar, Japanese Encephalitis, and Malaria has also increased.

Deforestation, Forest Degradation and GHG emissions in Nepal

The GoN has been carrying out periodic forest inventories to determine the total forest cover of the country. According to the Water and Energy Commission, the forest area of Nepal in 1964/1965 was 45.3%. The Land Resource Mapping Project (LRMP, 1986) report shows that about 42.7% landmass is occupied by forests. Different studies indicate that forests were lost at rate of 1.7% per annum between year 1978 and 1994.

Besides deforestation, there are many incidences of forest degradation in Nepal. In response to this, the Government has initiated several programmes to increase the forest area. The forest condition seems to have increased after handing over of forest as community forests, leasehold forests, and collaborative forests. Similar observations have also been made in protected area systems.

The national communication report submitted by Ministry of Environment in 2004 shows that there have been 22895 Gigagram carbon emissions annually contributed by deforestation related activities in Nepal. This report identifies forest fire as one of the prime cause of degradation of forests in Nepal. The drivers of deforestation and degradation identified by R-PP of Nepal are: high dependency on forests and forest products (timber, firewood, and other NTFPs), illegal harvest of forest products, unsustainable harvesting practices, forest fire, encroachment, over grazing and infrastructure development.



The main causes of deforestation and forest degradation can be divided into two types:

- Direct causes include the conversion of forest land into agricultural land, development of infrastructure, over exploitation of forest products, and natural calamities.
- Indirect causes include rise in population, poverty, economic growth, lack of good governance, and ambiguous policy.

The opportunity for reducing emissions from deforestation and forest degradation opens up ways by which Nepal can get benefit from carbon trade. The REDD- Forestry and Climate Change Cell has been actively working on this.

Activities for the REDD Readiness Process in Nepal

In international negotiations related to climate change and REDD+, Nepal has always shown her commitment to meet international obligations. Nepal has been working on the REDD process through the support of various donors and funding organizations. Some of the notable works and achievements during this process are as follows:



- The GoN submitted the Readiness Plan Idea Note (R-PIN) to FCPF in July 2008, thus initiating the REDD+ programme in Nepal. It is noteworthy that the R-PIN has been prepared through a voluntary effort of multi-stakeholders.
- The REDD Cell has been formulating REDD related policy and guidelines. The Readiness Preparation Proposal (R-PP) which is the basis for entering the carbon trade is now being implemented. The R-PP was approved by the Forest Carbon Partnership Facility of the World Bank in June, 2010. To complement the formulation of a national REDD+ strategy, various analytic studies are being carried out. 'Demand and Supply of Forest Products', 'Effects of Invasive Species on Forests', 'Drivers of Deforestation and Forest Degradation', 'Development of Reference Level' and 'MRV' and 'Benefits of Forest Carbon', are few of them.

- Trainings, workshops and interaction programs have been organized at the regional level for the capacity building of forest officer.
- Forest Carbon Measurement Guideline has been prepared to maintain consistency in carbon inventory method at local level.
- REDD cell has formed a technical committee to facilitate establishing reference emission level and MRV and for sharing forest carbon benefits.
- The REDD cell has also initiated the inventory of REDD+ related pilot projects in Nepal.

Institutional framework of REDD

The Ministry of Forests and Soil Conservation (MoFSC) has established a three-tiered institutional mechanism for implementing REDD+, consisting of the REDD+ Multi-sectoral, Multi-stakeholder Coordinating and Monitoring Committee as the apex body; the REDD Working Group at the operational level (RWG); and the REDD-Forestry and Climate Change Cell as the coordinating entity. All three bodies have been working together to implementation R-PP, ultimately to prepare the National REDD+Strategy. In addition, a Stakeholder Forum has been established to engage wide range of stakeholders in the entire REDD+ process. Since the state is under a restructuring process, these institutional arrangements will be adjusted in line with the new constitution.

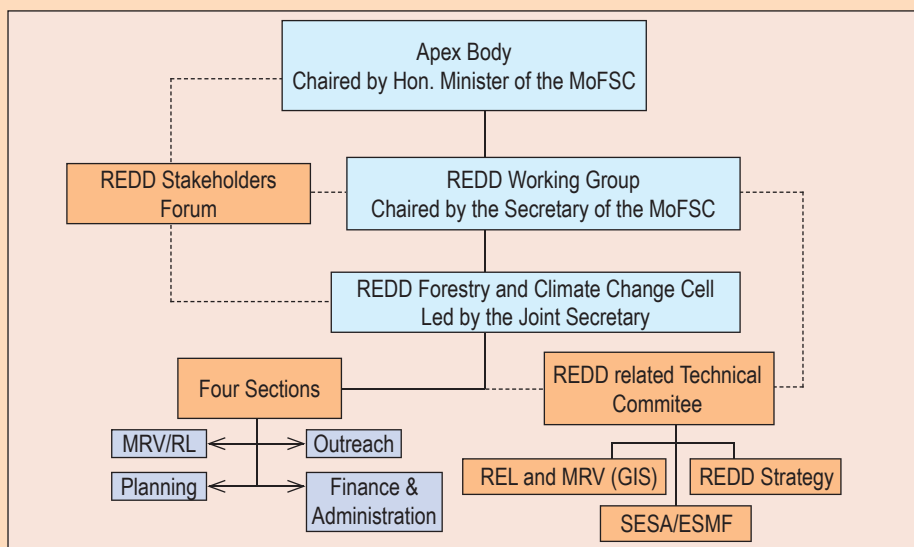


Figure 1: Institutional Set up of REDD

REDD Pilot Studies in Nepal

Besides the GoN, other projects, NGOs and INGOs are also involved in the REDD+ project piloting process and they have made efforts in reducing deforestation and forest degradation. Table 1 shows some undergoing activities.

Table 1: REDD+ Piloting Projects In Nepal

Type of Piloting	Institutions	Objectives	Scope
REDD+ payment system	ICIMOD, FECOFUN, ANSAB	Establishment of a Forest Carbon Fund, Designing MRV System	Watershed based
Poverty alleviation through REDD+ pilot	WWF, Nepal	Developing standard method of forest carbon measurement	Landscape
		Generate Forest carbon data	
Capacity building to local community	Grass roots level capacity building on REDD+ in Asia and the Pacific	Raising awareness in grass root level	Local community (District level)
Climate Change adaptation	Swiss Development Cooperation, DFID	Explore adaptation & mitigation activities to address the impacts of CC	Community forest users
Capacity building to local indigenous community	NEFIN	Create awareness about REDD+ focusing Indigenous peoples	Local indigenous community
Awareness to collaborative forest users	SNV, Nepal	Create awareness in the Tarai about CC & REDD	Mahottari district

Forest carbon stock across different physiographic zones and management regimes

Stock of forest carbon was found varying across different physiographic zones and forest management regimes. Table 2 demonstrates that the protected area system has relatively more carbon stocks than the other forest management regimes.

Table 2: Forest carbon stocks across different physiographic and forest management regimes

Project	Physiographic region	Forest management regime	Carbon stocks (MT/Ha)
Terai Arc Landscape*	Terai	State Forests	206.15
		Community Forests	240.00
		Protected Area Systems	274.58
NORAD Funded REDD+ Piloting by ICIMOD, FECOFUN and ANSAB**	Inner Terai (Chitwan) Mid-hills (Gorkha) High Mountain(Dolakha)	Community Forests	257.39-298
		Community Forests	166.97-221.77
		Community Forests	168.27-231.35
REDD Piloting in Collaborative Forest***	Terai (Bankhe-Mahara Collaborative Forest, Mahottari)	Collaborative Forest	197.13

Source: *Gurung, M.B.2010, **ICIMOD et.al,2011,*** Mandal et.al. 2012

Challenges and Opportunities of REDD Implementation in Nepal

REDD+ has been designed to become a mechanism for mitigating deforestation and forest degradation worldwide. Nepal has many opportunities of benefitting from it. Community based forest management which is considered very successful, is supportive for the REDD process. To date, about 18,000 CFUGs are managing more than 1/3rd of the total forests of the country. Similarly, around 23% of the total area of the country is under the protected area system.

However, the REDD+ implementation is more complex than envisioned and there are various challenges. One of them is weak governance in forestry. Illegal logging, weak governance, trans-boundary leakage and forest encroachment are few of the public allegations that forest administration is currently facing. There is uncertainty to invest in REDD+ activities due to inadequate capacity to enforce regulatory actions.

The other challenge is the capacity gaps. The safeguard standards suggested in REDD+ accounting element are highly technical, and the existing public and community institution do not have that required level of expertise to deal with these element

Conflicting cross sector policy is another challenge. Forest act and bylaws are contradicting with other sectoral acts and regulations, the major ones being the mining act and the local governance act. This conflict has aggravated activities leading forest degradation and deforestation.

Prevailing data associated with emission and activity are not consistent and comparable due to differing methodologies adopted by different national forest inventories. This inconsistency has made it difficult to establish Reference Emission Level and to develop Monitoring, Reporting and Verification system.

High transaction cost in monitoring and verification for the fragmented forests such as community and leasehold may reduce incentive to participate in the REDD+ activities. This issue is particularly pertinent in community managed forests.



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