REDUCING EMISSIONS FROM ALL LAND USES – REALU

WHAT WILL VIETNAM'S PATH BE?

Initial findings of the scoping study

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THE INTERNATIONAL REDD DIALOGUE

• Land use, land use change, and forestry (LULUCF) especially tropical deforestation, contributes approximately 17-20% of the total greenhouse gas emissions. A practical solution is to compensate land users who change their land use from high carbon stock to lower ones, e.g., not to clear forests for agriculture. This, in principle, is the reason behind the so-called Reducing Emissions from Deforestation and forest Degradation (REDD) mechanisms. Another solution is to obain sustainable land use through cross-sectoral planning and managed land use changes. This explains the importance of land administration in reducing greenhouse gas emission.

• The current 'policy domains' for forestry and agriculture do not match with the reality of other parts of the developing world, including Vietnam. It refers to a partial accounting of land use change, without clarity on cross-sectoral linkages and rights other than those of forestry authorities.

• As debate on the reduction of emissions from forest change has progressed from RED up to REDD++ it has highlighted the complexity involved in managing multifunctional mosaic landscapes. Below is a summary of what each of REDD options implies:

o RED = Reducing emissions from (gross) deforestation: only changes from 'forest' to 'non-forest' land cover types are included, and details very much depend on the operational definition of 'forest'

o REDD = RED and (forest) degradation, or the shifts to lower Carbon-stock densities within the forest; details very much depend on the operational definition of 'forest'

o REDD+ = REDD and restocking within and towards 'forest' (as specified in the Bali Action Plan); in some versions REDD+ will also include peat land, regardless of their forest status; details still depend on the operational definition of 'forest'.

o REDD++ = REALU = REDD+ and all transitions in land cover that affect carbon storage, whether peat land or mineral soil, trees-outside-forest, agro-forests, plantations or natural forest. It does not depend on the operational definition of 'forest'

• National Appropriate Mitigation Actions, or 'NAMA' (Bali 2006), include provisions for approaches to reducing emission levels that are adapted to diverse local conditions and national development pathways.

• The question is what approach will be 'NAMA' for Vietnam, REDD, REDD+, or REDD++?

REDD PERSPECTIVE AND DEFINING FORESTS IN VIETNAM

• Despite the fact that Vietnam seems to include REDD in an overall framework for the forest sector, the World Bank highlighted that Vietnam is only one of a few with Readiness-Project Idea Notes (R-PINs) in their application for Forest Carbon Partnership Facility (FCPF) that also paid attention to industrial agriculture, plantations, cattle ranching and urban development as drivers of forest loss. The government views that REDD would support Sustainable Forest Management (SFM) including biodiversity conservation and enhancement of forest C stock; and address current environment and socio-economic development strategies.

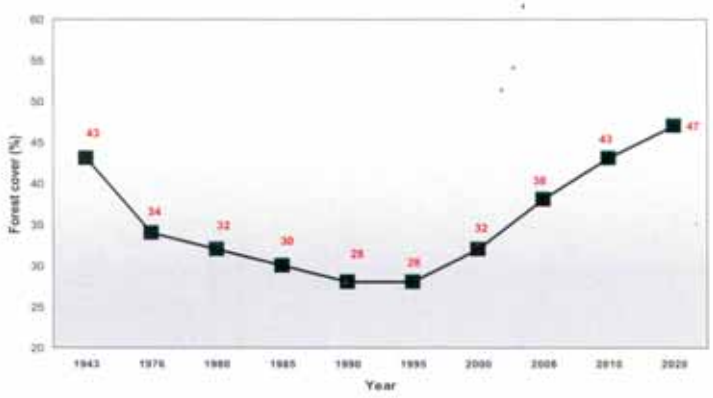
• According to Forest Protection and Development Law (2004), 'forest' is 'an ecosystem with trees, animals and biota, soil and other environmental factors, in that timber species, bamboo or other species provide with a coverage from and more than 10%. Plantation forest and natural forest are grouped into production forest, protection forest and special forest'.

• In 2009, the Ministry of Agriculture and Rural Development (MARD) introduced a new definition, where forest is 'an ecosystem, in that the main components are perennial timber species, coconut and other species, with trees higher than 5m and a canopy cover of more than 10% (except newly established forest plantations and some mangrove forest), that can provide timber, NTFPs and other direct and in direct environmental services such as biodiversity conservation, environmental protection and landscape beauty'. Thus, the term 'Forest', as defined for Vietnam now is very close to Food and Agriculture Organization of the United Nations (FAO) and United Nations Framework Convention on Climate Change (UNFCCC)[(i)] . This definition can cover many types of land cover and use, varying in the presence of trees (including zero tree cover lands), C-storage and C-emission potential.

• Reflecting UNFCCC definition on forest and deforestation on forests, the MARD classification appears to be suitable for REDD and REDD+. However, the inconsistency between the two land use classification systems existing in the country shows the high risk for unclear land tenure and the increase of converting forest land into non-forest land.

WHAT ARE THE DRIVERS OF DEFORESTATION AND DEGRADATION IN VIETNAM?

The forest cover change since 1943-2008 and the predictions up until 2020 show a positive increase (Figure 1), mainly due to the increase in forest plantation[(ii)] . However, at the end of 2009, forest coverage is only around 30% and forest quality degradation and conversion of natural forest into other land uses is an alarming issue. Despite the fact that emissions per person in Vietnam is only one third of the global average emission per person (1.2 ton/year/person in Vietnam while global average level is 4.5 tons/year/person), CO_2 emission of Vietnam increases sharply compared with the world (from 6.7% between 1995- 2000 to 10.6% between 2000- 2005, World Bank, 2009). Nevertheless, there remains a complex challenge in improving forest conservation and management



The main 'human made' drivers of deforestation and degradation in Vietnam before 2005 were shifting cultivation. Since 2005 this has included:

- Land use conversion for rubber planting;
- Forest planting; and
- Establishing hydropower plants.

Carbon stock of the rubber plantation as well as the planted forests is only about half of that in degraded forests and about one forth of natural forest. Thus, carbon degradation due to land use change and forest degradation is an obvious factor in Vietnam

RIGHTS, RESOURCE ACCESS AND TENURE

Vietnam has introduced tenure reforms that have allocated large areas of forest to individuals and which lays the foundation for community managed forestry. However there remain various challenges for the successful operation of community based forest management including:

(i) Much of the forest land is still under the control of the State Forest Enterprises (SFEs) despite mandates to allocate them to local control;

(ii) Community forest management is often weak in part due to the erosion of traditional institutions and lack of appropriate approach;

(iii) Upland farmers cannot earn an adequate living from forests even though they are the principle custodians of forests; and

(iv) Forest Protection Contracts (FPCs) and related NTFP use rights have largely failed to achieve program goals because they do not address fundamental deficiencies in the reward system.

DISCUSSION AND RECOMMENDATIONS

- REDD+ and REDD seem to be the most relevant schemes for Vietnam
- Potential negative impacts of REDD should analysed and taken into account when designing appropriate policies and safeguard mechanisms
- Given the possibly high transaction costs for REDD+ and REDD++, criteria needs to be established for deciding what land-use categories will be included in REDD++.
- Development of landscape and cross-sectoral approaches are recommended which would contribute to and extend current UN- REDD and FCPF activities in Vietnam.
- It is recommended that these approaches emphasize the development of methods and tools for landscape approaches for emissions reductions, including:

(1) Setting up a national land use classification that could clearly define REDD+ and map its geographical boundaries using high resolution remote sensing;

(2) Analysing land use changes for 'drivers' of deforestation and degradation that provide a basis for formulation of scenarios for REDD+ options; and

(3) Conducting opportunity cost analyses for various existing land use changes and scenarios. Results could be used to identify key 'thresholds' where carbon off-sets can or cannot be feasible. Thresholds could then be used as a negotiation tool in strategic national land use planning, where emission reduction, rights and livelihoods of indigenous people would be integrated.

REDD ANALYSIS FRAMEWORK/MATRIX

An assessment of key aspects of applying REDD, REDD+ and REDD++ approaches in Vietnam was conducted. The findings (Table 1)[iii] shows increasing values from REDD, to REDD+ and REDD++ in most of the assessed parameters, including areas and range carbon stocks, permanence, roles of smallholders and types and levels of co-benefits. Furthermore, estimated levels for transaction costs, including costs of involving a wider range of stakeholders and the risk of method inconsistency, are also less for REDD and increase with each level of movement toward REDD++. Clear differences have not yet been found in the levels of difficulty associated with policy/governance, while expected levels of leakage seem to depend primarily on the scale at which each scheme is conducted.

Assessment	REDD	REDD+	REDD++
Areas and carbon	Natural forest plus forest land without forest (MARD's system)	Natural forest, planted forest (protection, special use), Any other land use that provide forest products	All land use categories. Balancing of land use conversion mechanism
	16 million ha	**19 million ha**	**33 million ha**
	87 – 198 tC/ha	**87 – 198 tC/ha**	**0-198 tC/ha**
Transaction costs	Mapping and monitoring: 1. Forest, 2. Non-forest, 3. Degradation	Mapping and monitoring forest and non-forest	Mapping and monitoring carbon and areas of all land use (this is inline with regular land administration work)
	Certification and verification	High transaction costs in order to fulfil all criteria for SFM	Regular inventory and statistics (indicators as of REDD+)
	C-stock measurement		
Policy/Governance	Lack of common definition of forest	Lack of common definition of forest	We do not depend on definition of forest, but need to have a common land use classification for this purpose
	Difficult for management and monitoring	It is very important to develop a mechanism for benefit and responsibility sharing	It is very important to develop a mechanism for benefit and responsibility sharing
	Lack of connections with the society/communities	The social and cultural aspects are included	
Methods	C-stock	C-stock	C-stock
	Difficult to quantify degradation		
	Quicker compared to REDD+ and REDD++	How to quantify biodiversity, evaluate social aspects (difficult) and how to activate biodiversity market	
	A combination of Remote sensing with high resolution and on the ground survey is required		
Permanence	Difficult to predict	High permanence if management regime of SFM (technical and social aspects) is applied	Very high permanence if we can balance benefits from land use types and relevant stake-holders
	Social sustainability should be achieved	Aim at social sustainability	
Role of small holders	Guardians	Not high as SFM require large areas	Very important
		Complicated procedure if community will be the applicant e.g.A/R,AF	People and communities are more involved: management of community forest, community-based forest management
			Guardians, AF, A/R
			All land use
ES	Biodiversity, water, carbon, prevention of soil erosion	Biodiversity, water, prevention of soil stock, higher c-stock	Biodiversity, carbon, erosion control, soil fertility improvement, water, harvesting, the most benefit among REDD options
Financial	Carbon, water (380 decision), NTFP, timber (production forests)	Carbon, water (380 decision), timber with better prices, higher productivity of timer production	Carbon, water (380 decision), food, jobs
Non-monetary	Spiritual value to ethnic group, Medicinal species, Cattle grazing, fuel wood	Spiritual value to ethnic group, Medicinal species, Cattle grazing, fuel wood, biodiversity	Livelihood, subsistence especially important for climate change adaptation
Uncertainties or Agreement on Methods	Forest land classification is different between Land Law and Forest Protection and Development Law	Forest land classification is different between Land Law and Forest Protection and Development Law	Opportunity costs analysis method is ready to serve cross-sectoral land use planning

Reducing Emissions from All Land Uses (REALU) is funded by the Norwegian Development Agency (NORAD) for 7/2009-7/2010, covering eight countries: Indonesia, Philippines, China, Nepal, Vietnam, Cameroon, Peru, Tanzania.

ASB is the only global partnership devoted entirely to research on the tropical forest margins. ASB's goal is to raise productivity and income of rural households in the humid tropics without increasing deforestation or undermining essential environmental services.

The World Agroforestry Centre (ICRAF) is one of the 15 international research organizations (CGIAR), with its mandate to contribute to economic growth, poverty reduction and environment protection.

The Ministry of Natural Resources and Environment (MoNRE) is the national focal agency for climate change activities in Vietnam. Department of Forestry (DoF) at the Ministry of Agriculture and Rural Development (MARD) is the National REDD focal point in Vietnam. Management of REDD occurs under a steering committee for Climate Change Mitigation and Adaptation under MARD.

The Research Institute for Sustainable Forest Management and Forest Certification (SFMI) is a non-governmentalorganization (NGO) containing leading forestry experts in Vietnam. It belongs to Vietnam Forestry Association.

The International Support Group for Natural Resources and Environment (ISGE) is a catalyst and focal point for aid management and policy dialogue. It initiates discussions and supports the co-ordination of Government and donor activities in the field of environment and natural resources management in Vietnam. Department of International Cooperation (ICD) of MoNRE is the focal point for ISGE.

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(i)The forest definition agreed on by UNFCCC in the context of the Kyoto protocol has three significant parts, only the first of which has received a lot of attention:

. Forest refers to a country-specific choice of a threshold canopy cover (10–30 percent) and tree height (two to five m);

.These thresholds are applied through "expert judgment" based on the potential to be reached in situ, not necessarily to the current vegetation; and

. Temporarily unstocked areas (without "temporarily" being defined) remain forest as long as a state forest entity thinks they will, can or should return to tree cover conditions.

(ii)During period 2000-2007, the area of unused (according to MONRE's land inventory and statistics) decreased by 4 million ha, contributing to 42% of total land use change in the same period. This explained the increase of areas of most of forest land use categories, particular forest plantation.

(iii) The matrix was conducted by 26 national and international participants at the national workshop 'Reduction of Emission from All Land Use –REALU', dated 4 November in Hanoi, 2009. Additional data on area and carbon stock originated from land use analysis by the World Agroforestry Centre in Vietnam.