

Summaries of the presentations made by Tomas Thuresson 11, 12 & 14 July 2011.

Subject: “Background, Issues and why a course program” and “MRV and Monitoring for REDD+”

The rapidly increasing CO₂ levels in the atmosphere with increasing global temperatures have alerted the international society since many years back. We all know the problem around the changing climate and there is no need of going into that in this group.

The climate change is however an increasing problem where the usage of fossil energy (oil, coal and natural gas) represents the largest problem components. However, also land use and land use change affect the global climate – negatively due to emissions – but also positively due to carbon sinks in many areas.

One of the largest sources of emissions is the ongoing deforestation rates, which have been estimated by IPCC to represent close to 20 % of the total human induced emissions and most of this deforestation are going on in so called “developing countries”. As the coming 20-30 years are crucial for slowing the climate change the importance of decreasing the deforestation rates have been included in the international (UNFCCC) climate change negotiations. The uses of the forest resources for forest products and agricultural land have a large economic influence for the developing countries as well as it was important for the today’s industrial countries in earlier centuries. It would therefore be “unfair” to give the developing countries the mission of stopping the deforestation to stop the climate change without compensation. Instead the main idea is that developing countries should be able to get economic support for “ ... **reducing emissions from deforestation and forest degradation** and ... sustainable management of forests and **enhancement of forest carbon** stocks in developing countries.” from the industrialized countries. The concept here has been named REDD+, and as the text above implies the reduction of degradation and enhancement of carbon stocks through sustainable forestry are equally important.

The idea here is that the transfer of money from the “rich” to the less rich countries should be performance based in correlation to the reduction in “REDD+” emissions or enhancement of carbon stock. To be able to do this in a correct and reliable way it has been decided that one cornerstone of a future REDD+ mechanism is the MRV and Monitoring systems to be established.

This means that it will be crucial to monitor progress – that is what the investors (the industrialized countries) are paying for. It must be able to assess or estimate carbon emission reductions (and enhancement of carbon stock) at country level as well as ensuring good governance, avoiding corrupt practices and ensuring the biological diversity and other

environmental services! The MRV and Monitoring for REDD+ will have to include monitoring of implementation of REDD+ mitigation activities and safeguards, as well as other development goals. This is a huge task to do for any country, (also industrialized countries) and the competence and the organizational set-up in most developing countries are not adequate and in some subjects like area sampling, statistics, forest inventories, analyses work, remote sensing, etc. the competence and capacity are very limited.

With this as background and following the implementation of “REDD+ and MRV and Monitoring” in countries, there will be an accelerating need for educating decision makers and managers.

The purpose of this course in “MRV and Monitoring” for Executives and Managers is to give educational support to developing countries in their REDD+ readiness work. The course will not give all necessary skills and it will actually not focus much on the coming reporting etc. However, the course will give some understanding of the skills needed in the REDD+ countries, it will give many of the conceptual skills needed and many contacts for the future work needed to be done.

Thanks and also welcome to the workshop on “REDD+ MRV and Monitoring”

Subject: “REDD+ Decisions – strategic v.s. Operational decision needs”

In the REDD+ processes (reporting, governance implementation and so on), there are different decisions to be made and different reporting needs to be fulfilled.

It is important to divide the different information needs according to this and to divide the information needed into: 1. Strategic decisions and strategic information needs v.s. 2. Operational decisions and operational decision needs.

Whereas in the strategic monitoring the information will mainly support decisions on national level and reporting to e.g. UNFCCC. Here typically high accuracy unbiased data with known error estimates is needed. This means normally using relatively expensive but also because of that sample based measurements.

For effective sub-national governance and for incentive allocation from national to regional levels a more operational monitoring is needed. Typically the data and information needs here are more activity oriented (including causes of activities) and there are lesser needs for very accurate data and error estimates.

That is - both levels of information are needed.

- For strategic decision making, reliable data without bias and with a known precision is needed. Often different variables are needed that aren't normally inventoried in more operationally headed inventories (e.g. volume of dead woody debris, soil type and depth, etc.) and ground based inventories often combined with remote sensing data are crucial for being able to create the needed information.

- On the other hand more operational inventories are also needed for operational decisions and can come about as a result of discussions set off from the objective inventory results. Here typically remote sensing together with administrative data will support the decision needs.

Subject: “Organizing a national monitoring center – from data to information”

A combination of monitoring entities is always needed to fulfill the information needs around the nature resources in any country. Also, there are many more information needs than the information required for, e.g. the UNFCCC reporting on the REDD+ mechanism. The National Forest Inventory (NFI) is just one, but an important part of the monitoring system that is needed to manage the nature resources, but also other organizations are needed.

To supply decision makers (public and private, national and international) with the information needed for efficient decision making, data about the nature resources will have to be collected, properly organized, analyzed and presented as information. This process of creating information from data can be described in many ways, but normally some properties are important to make an information system.

For success it is important that a system has a purpose, that it operates routinely and that it is based on a group of components. Normally (and especially when discussing NFI and MRV needs) these components include 1. Data collection; 2. Database management; 3. Data analyses and 4. Communication of the information produced (to the customer, decision makers, public and so on).

To be able to monitor and analyze the development of the nature resources and to govern these resources it is important that the monitoring system is established with a secured continuity. Short term projects will of course give some important information but for long term monitoring and governance continuity is crucial! Therefore the financial continuity is important to secure when establishing the monitoring system. It is also important with stakeholder participation in all steps of the process. The stakeholders (government agencies, NGOs, sector representatives, etc.) will eventually be the ones accepting and implementing the decisions made based on the monitoring. Therefore, the importance of including their participation in reference groups, etc, cannot be overestimated.

Finally then, what kind of organizations do we need to make a complete information system around, specifically the forest resources? Well, obviously the NFI is important, to create state and change figures about the resources in the short and long run. But also, a general national statistical surveying system (including economic data, employment rates, and other important socio-economic data) are important, to be able to create the background information about activities in the forest sector.

In addition to this organizations with analyzing and policy options analyses capacity is needed, such as universities or national agencies with the mission of creating information for the governing agencies. And also, strong governing agencies are needed to implement the policies created based on the information process.

Subject: Drivers of land use change and policy options analyses

In the *COP Draft decision -/CP.16* - “Outcome of the work of the Ad Hoc Working Group on long-term Cooperative Action under the Convention” in § 70 it is said that (UNFCCC) ... “Encourages developing country Parties to contribute to mitigation actions in the forest sector by undertaking the following activities, ... circumstances”:

- (a) Reducing emissions from deforestation;
- (b) Reducing emissions from forest degradation;
- (c) Conservation of forest carbon stocks;
- (d) Sustainable management of forest;
- (e) Enhancement of forest carbon stocks;

...and how will this be possible without analyzing and addressing the drivers of land use change (LUC), meaning knowing the causes of the changes, which are not always as obvious as they seem.

Therefore the importance of analyzing the drivers of LUC, forest degradation and deforestation is emphasized (“Encourages all Parties to find effective ways to reduce the human pressure on forests that results in greenhouse gas emissions, including actions to address drivers of deforestation.”). And how to you find effective ways ... tools .. means? Well, to me that is analyzing, developing options and choosing the most cost effective option among them. So collecting data about LUC and data/information that can support the analysis of LUC causes is important.

So what are the causes of land use change? Well, that cannot be answered in a 1-dimensional way, as the causes can be direct or indirect in a successional way, where the changes might be slow, but irrevocable. Such changes include e.g. degradation (“...direct human induced ...”), where

- Non-sustainable fire wood collection (and fellings for char-coal production) in combination with grazing
- Non-sustainable slash and burn agriculture
- Commercial forestry in pristine forests and
- Mining and infrastructure expansion, etc., form some of these causes.

Of course direct deforestation is also important. Often then caused by a combinations of the above stated activities but also from active conversion (farming, oil palms, etc.) of forests to agricultural land.

It is important to look into these activities with a special interest as it is very difficult to create deforestation by clear-cuttings only and by definition deforestation is LUC. Wood harvest by itself almost never creates deforestation. The exception is really hard climatic locations close to the desert or the arctic tundra. Otherwise, if grazing animals are kept away, the forest will normally come back by itself, meaning that it is not deforestation but “merely” degradation if the trees are temporarily gone.

According to IPCC (2007) the main causes of deforestation are:

- subsistence farmers practicing shifting cultivation,
- cash crop smallholders and
- large companies that clear land for crops and cattle,

Together, these account for three-quarters of all tropical deforestation, so the agriculture is the main “deforestation factor”, but of course also agriculture is often following road-building and forestry and normally not too far from a frontier of infrastructure. So again, the causes are often a combination of activities, where agriculture finally makes the difference between a degraded forest and non-forest.

Also, all land use changes are created by human activities, where human expansion need the land for different purposes. Therefore, as presented above, it is important to not only monitor the forest variables but also social, economic and other potential explanation variables. The observation of the forest as such is not enough!

In the same way that there are different causes of deforestation and degradation, there are different ways and options of stopping these. It is not always obvious what will be the best activity or incitement to stop the changes. The analyzing of the best and most efficient ways of decreasing the degradation and deforestation and to change the development into a forest stock, growth and therefore carbon enhancement development we here call the “Policy options analysis”. That is ... how do we find out which policy measures will have the best effect – works the best?!

Here it is important to incorporate the decision making into the policy decision making process (see figure below). Here observations form the background for inventories, which together with additional data will give the possibility to analyze the causes of LUC and the best available options. These options will have to be chosen among by the decision makers, because all options will have side-effects which will have to be politically weighted v.s. the positive REDD+ effects. Then the chosen options will have to be implemented and followed up according to the figure below.



There are many options available. To countries – money transfers may be efficient incentives and an obvious option, but within countries this way of creating incentives might not always be the best option. There are many policy means to reach REDD+ goals within a country. Means such as a stronger forest legislation and a strong national forest agency implementing this legislation, normative activities as education (in the schools) and guidance on sustainable forestry, taxation regulations, operational inventories, land tenure and acquisition regulations, just to mention a few of these means.

The Issue of forest land ownership is of course a really big and a political issue. But when there is no clear ownership of the forest, you are poor, you have the time and the muscles and the governance is not perfect, it is not very smart to wait for someone else to grab what is there! And there is no incentive for investments as the land value for the individual person is zero. Also, in the case of slash and burn agriculture, the fertilizer is for free, when the cost of cutting down the forest and burn it is sweating...

The incentives for sustainable forestry do not exist if there is no ownership. Why use the forest sustainable when my kids won't get a piece of the cake anyway? There is of course a risk of getting caught – if there are rules and governing agencies against deforestation – but the benefit might outweigh the risk for the individual.

So, in the policy options analyses we must also analyze if we are addressing the right issues.

- Will REDD+ money (PES – Payments for Environmental Services) transferred to the regions or villages make real difference?
- Are there possibly other solutions and policy means within countries to reduce the deforestation and degradation issues?

To successfully implement REDD+, other policy means are necessary to address and analyze. The policy options analyses aims at finding the most efficient ways in a specific country to “REDD+”.