Comments on CAR´s Mexico Forest Protocol.

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A very strong point about the draft is the emphasis on how this approach can be integrated into other on-going REDD+ efforts in Mexico, particularly as regards the ENAREDD+. This is important because Mexico is relatively well advanced compared to other countries in terms of developing a national strategy, and the question of how independent projects can be integrated is crucial. If a good solution to this can be developed for the case of Mexico, it may serve as a useful example for many other countries. The recognition that such projects have to fit into jurisdictional accounting is central in this matter (and has been ignored or skimmed over by a number of other organizations promoting REDD projects).

I also very much appreciate and support the idea that the forest owner/managers should responsible for monitoring carbon stocks within their parcels, although (as the Protocol suggests) this should clearly be done using an approved and standardised protocol and with some form of (sampled) verification. The principle of self-assessment in carbon stocks seems to me to be basic for a successful REDD+ programmes and formal acknowledgement of this principle needs to be promoted.

I have a number of general observations first and then some minor points.

1. I believe there is some confusion regarding how different REDD components (deforestation, degradation, forest enhancement etc) will be measured and accounted (see for example table 6.1). The CAR Protocol implicitly assumes there will be one baseline for all processes together but I suspect that this will not be the case. The point is that *deforestation* will certainly require a baseline based on an area much larger than the individual project (for example, it could in principle be established at the level of the UMAFOR, as suggested in the document, see also comment below). This is because the risk of deforestation is a probability function, with binary characteristics (an area is either deforested or not). *Forest enhancement* resulting from improved management in situ on the contrary can be measured on the basis of simple biomass increment in the site itself, and needs no further baseline (except that for proof of additionality it may be necessary to provide some (perhaps qualitative) evidence that before the REDD intervention, the forest was not enhancing by itself). It is not quite so clear how a baseline for *degradation* should be established, but since this (like forest enhancement) is a continuous function rather than binary, it might be logical to consider degradation the inverse of forest enhancement and to set a baseline for it at the project site level, based on historical rates of degradation in situ. The difficult is that such data is usually not available. Note that sustainable management of forest, and conservation, although mentioned as elements in REDD+, are in fact management approaches to reducing D&D and to promoting forest enhancement, they are not themselves indicators of carbon stock change.

Note: data availability at the level of UMAFORs to construct baseline. I am not sure if data is already available/published on land cover change for these areas (in the Protocol you give example of 'UMAFOR X' with e.g,. a loss rate of 0.4% annually or 8% over 20 years), but it would be relatively easy to obtain areal data on land cover change for the UMAFORs from remote sensing and the INEGI map series II, III and IV, so deforestation rates could be established. Data on biomass density, and particularly changes in biomass density (to build a baseline for degradation, or even simply to obtain an emission factor for any areas that have been deforested), is much more problematic. You might think it could be done by aggregating data from INFyS for these areas. However our initial attempts to use INFyS data for building a degradation baseline for one of the Mexican pilot projects has floundered. Only about 10% of the plots first measured between 2004 and 2007 have been re-measured so far. We compared those that had been re-measured, pairwise, in order to develop the biomass change estimates in the area where we are working and found that there were very large discrepancies. Most plots appeared to have enormous swings (both up and down) which are so large they cannot be real: it seems that there is a very large measurement error in the data. It is likely that the re-measured plots are not in the same location as the original ones, as many of them had totally different plant populations the second time round. On average, this should not matter, e.g. for estimating average biomass density for given vegetation types, but the data cannot be applied to smaller areas to construct baselines (the gird is 5km by 5km in any case, so the number of plots within any one forest parcel is far too small). We are still investigating the implications of the data for MRV of our project, but our preliminary view is that it certainly cannot be used to assess changing stock levels within the individual parcel of forest (ejido level), and probably not at the level of aggregation above this (e.g. UMAFOR, or cuenca or municipality level), although they could be suitable for state level estimates. In any case it only goes back to 2004 at the very earliest and is therefore not sufficient to construct a baseline.

2. The idea of admitting only projects which already have an approved management plans supported by PROFEPA has advantages in terms of legitimacy etc. However I am not sure that this covers sufficient types of forest management. The term forest management in Mexico is usually associated with (sustainable) timber extraction. In a more general sense, all the Payment for Environmental Services projects (PSAH and PSA Biodiversity) are also a form of management, and there are community level wildlife management programmes etc all of which could have a profound impact in terms of carbon stocks, which may not fall under this institution.

3. This is of particular importance because almost all the PROFEPA forest management projects are currently in pine and pine-oak forests, where indeed the valuable timber is found. HOWEVER the deforestation rate in these bosques has been very low in the last 10 years, almost zero. Deforestation is mainly occurring in the selvas (particularly in the selva baja) where there is virtually no timber extraction and no almost no sustainable forest management programmes, although there are some ejido-based PSAs and wildlife schemes. How much *degradation* is going on in the bosques compared to the selvas is still unclear. The causes of degradation are different in bosques and in selvas, in

the former it is mostly from unsustainable timber extractions, and near urban centres, charcoal; in the latter, it is mainly cattle grazing within the forest, which has suppressed regrowth.

Hence, if the focus is on forest management plans relating to timber, the problem of degradation in bosques may be tackled, but the deforestation and degradation in selvas will not be included.

4.   Meshing project level carbon credits with those at the jurisdictional level is a major problem. The difficulty (as noted in the Protocol) is that projects located within a jurisdictional area cannot claim more than the net achievements of the jurisdictional area. It is quite possible for a situation to arise in which say 10 projects between them achieve carbon savings of 100,000 tons while their jurisdictional area, which includes many non-project areas, might achieve only a net of 50,000 or indeed it might even have a negative result compared to its baseline. This makes the position of projects very insecure indeed, as for accounting purposes they are essentially the unwilling and powerless 'responsibles' for losses elsewhere in the system. One way that we have been suggesting to overcome this problem is to assign any credits due to reduced deforestation to the jurisdictional level only, and the forest enhancement credits (which can be concretely measured in situ at the level of individual parcels under management) to the owners/managers of such parcels only. This creates two clearly separate fields of crediting, avoiding the problem of how to settle accounts. This leaves the question of to where any credits for reduced degradation should be attributed. If a credible baseline for degradation can be constructed at the level of the individual management parcel, it would make sense to attribute these credits also to the owners/managers. The question of rights to carbon credits is however currently (January 2012) being discussed under the ENAREDD+ process, there is as yet no agreement on the solution proposed above.

Minor points and comments

I notice that of the 5 REDD+ elements, the protocol does not include conservation as an option, perhaps the reason for this should be explained.

Section 3.7 The UNREDD SES standards are probably the most robust standards available, and more suited to community types of forestry.

Section 3.10 Monitoring for 100 years, unlikely that anyone will accept this … also, at this point the Protocol calls for renewal every 30 years (to fit with Mexican law which does not allow ejido to enter into contracts long than this), later in the Protocol 20 years is mentioned as the crediting period.   It is in any case questionable whether permanence should be tackled in this way at all. There is confusion throughout the REDD community on this.

Section 7 Why determine carbon in long term harvested products if this is excluded (as shown in Table 6.1). At present you have to exclude it. See also 8.4 where you say this yourselves.

Secrtion 8.1 " The ProjecT Area must be stratified into stands that share common attributes for each of the fields…." No, not for stand identifier and area. It is only the remaining variables that will have common attributes.

Table 8.1 is not very clear. Only one stand is marked and what does the arrow mean?

This section mentions for the first time the definition of forest (10% canopy cover). Although this is the normal definition in Mexico, for the Kyoto Protocol (CDMs) Mexico selected 30% as the threshold. There is currently a debate going on about whether to bring this down to 10%, but it may be in Mexico's interest to leave it at 30%.

I am not sure about the statistical theory behind the selection of number of plots required (Box 8.1). Usual forestry practice is to take a preliminary or pilot set of plots, calculate the standard error of the mean, and from there estimate the number of plot required to achieve a given confidence interval at 5%.

Table 8.8 We do not have many allometric equations for the selvas. They exist for most species in the bosques but the selvas are much more bio-diverse, yet with species that are not financially valuable, hence they have never been studied properly and the equations have never been developed. To say 'formulas provided in the resource file' is not realistic. You can't put them there if they have not yet been developed.

9.1 see note above (2nd para, point 1). It is not true that many plots have been re-measured, and there are heavy doubts about the reliability of those that have been.

Table 9.1 Rate of change of forest carbon….. what is this based on? I suspect it is area, not stock. The data on stock is simply not available. It is very important to separate out the deforestation factor (area) and the degradation/enhancement factor (density of biomas within forest).

Figure 9.2 This is a bit confusing. This refers to forest enhancement only, I think? Could be made clearer.

Section 10 Leakage assessment is much easier if you distinguish losses due to deforestation to those due to degradation. Deforestation losses can cause leakage at a long distance, most leakage from degradation will be local. If deforestation credits are all left to the jurisdictional level, this makes estimates of leakage for the project much easier.