Cross-scale institutions

In a country like Indonesia rules for engaging in REDD and similar projects are under development. They will involve various agencies such as forestry, environmental, agricultural and home affairs, linking government agencies from village to district to province and national scales. Multilayer institutions tend to be complex and often operate at high transaction costs. An assessment of formal and informal approaches to make the system workable is important, especially in this formative stage for REDD/REALU implementation. We can learn from previous efforts in A/R CDM where the rules were made too complex, and try to avoid this pitfall.

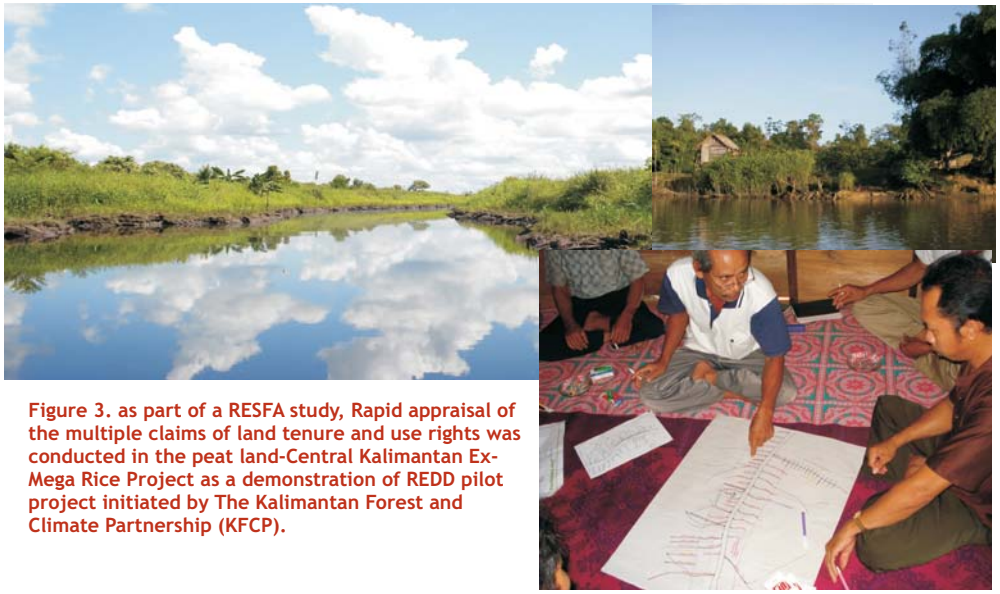

Figure 3. as part of a RESFA study, Rapid appraisal of the multiple claims of land tenure and use rights was conducted in the peat land-Central Kalimantan Ex-Mega Rice Project as a demonstration of REDD pilot project initiated by The Kalimantan Forest and Climate Partnership (KFCP).

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Contacts:
TUL-SEA Project
WORLD AGROFORESTRY CENTRE
ICRAF Southeast Asia Regional Office
Jl CIFOR, Situ Gede, Sindang Barang, Bogor 16115
PO Box 161 Bogor 16001, Indonesia
Tel: +62 251 8625415
Fax: +62 251 8625416
E-mail: icraf-indonesia@cgiar.org
http://www.worldagroforestrycentre.org/sea

Credits:
Authors: Meine van Noordwijk and Laxman Joshi
Design and Layout: Diah Wulandari

REDD/REALU Site-level Feasibility Appraisal (RESFA)

Would a targeted effort to reduce emissions bring local livelihood benefits?

Land use and land cover change are an important part (about 20%) of the total human-induced emission of greenhouse gasses that lead to global climate change. While most of the attention has so far gone to reductions in the other 80% that relate to fossil fuel use (and some other industrial processes), no opportunity to reduce emissions can be left ignored, if targets are to be met such as keeping global warming below 2°C. Reducing land-based emissions usually requires two things: A) dealing with the direct drivers of land use change that reduce C storage, e.g. through forest conversion; and B) supporting sustainable livelihood options that are compatible with high C stock landscapes, with trees that provide goods and services. To get such efforts recognized, a further set of steps is needed, that we group here under monitoring, evaluation and transaction costs. Since the discussion on 'C markets' has started, there are high expectations that engaging in emission reduction and/or enhancing C storage can help provide funding for rural development. Much of that hope may be hype, but there are opportunities for real benefits if intentions are genuine and projects are designed well. The international rules are still under discussion.

Any design for reducing net emissions of CO_2 and other greenhouse gasses needs to balance between

A. Dealing with the local representations of drivers of land cover change, by protecting high C stock density areas (effectiveness and, when expressed per unit investment, efficiency),

B. Promoting sustainable development pathways that provide livelihoods (welfare and wellbeing) at reduced net emission levels (fairness).

While linking opportunities to reduce emissions locally with those at other through the concepts:

- C1. Additionality (how do 'with-project' emissions differ from 'without-project' ones) and changes from Reference Emmission Levels (REL)
- C2. Leakage (how do 'within-project' actions relate to 'out-of-project' emissions),
- C3. Permanence (what is the expected emission trajectory after the project ends),
- C4. Accounting rules (how will emission reductions be quantified and verified),
- C5. Rights to co-invest and share in future net benefits, within national sovereignty to set rules
- C6. Certification (clarifying the local emission reduction as part of national scale achievements).

A 'REDD/REALU Site-level Feasibility Appraisal' (RESFA) will need to assess all these steps, as any of them can become a bottleneck when full project design (PDD), approval and implementation are attempted - a process that costs considerable time and investment and needs to have a reasonable probability of success to justify such investments. **A number of TUL-SEA tools can be combined to make an initial assessment.**

Key questions in the assessment

- **What is the current carbon stock of the system? What other environmental services does the system provide?**
- **What are the driving factors and threats that lead to reduction in carbon stock (increase in C-emission)?**
- **What is the dependency of the local people on the system?**
- **Is there a problem on tenure security and land claims?**
- **What are the possible scenarios and what is the potential carbon stock increase or decrease under these scenarios?**
- **What are the implications of these scenarios for livelihoods, institutions and equity? What are the opportunity costs, both financial and social? What about additionality, leakage and permanence issues?**
- **How can the benefits of REDD/REALU be shared or distributed equitably? Who will benefit and who will suffer?**

REDD projects developed based on clear answers to these questions are likely to have a good chance of success.

REFSA Background

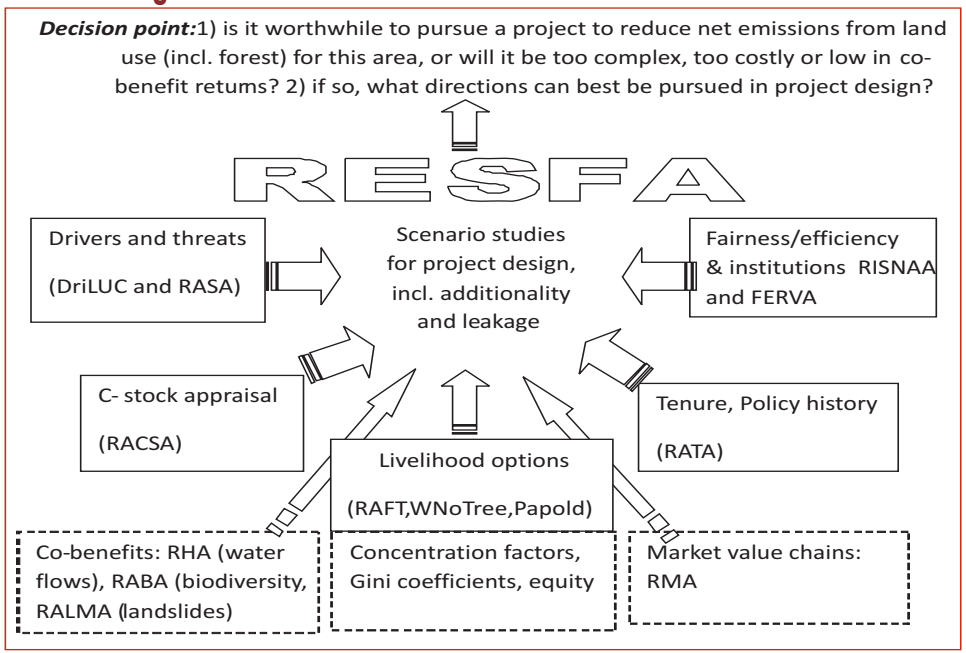

Figure 1. Scheme of RESFA with TUL-SEA tools elements

A number of the available TUL-SEA tools can be used to provide background:

1. RACSA – provides protocols for C stock assessment in the landscape
2. DriLUC – analyzes the local drivers of land use change, linked to analysis of actual time-series of land cover (RASA)
3. WNoTree, RAFT and PAPOLD can be combined to explore current land use options within a livelihood perspective (which includes in- and out-migration and off-farm employment)
4. RATA will analyze the tenure claims and history of policies that gave rise to claims and conflicts about them
5. FERVA can analyze the perceptions on fairness and efficiency, within the institutional setting and emerging rules for investment in emission reduction ('C markets')
6. Scenario models (either FALLOW or simplified spreadsheet accounting of the livelihood * C-stock tradeoff) can explore 'business as usual' trends and scenarios that are within (or just beyond) the 'plausible' domain for with/without project developments

Additional tools can provide insights in the expected level of 'co-benefits' through water, biodiversity and/or specific ways to reduce inequity and red poverty.

Methods not yet described: RISNAA = Rapid Institutional Strength, Networks and Actors Assessment, RASA = Rapid Spatial Analysis.

This way, all elements needed for an appraisal of the 8 steps are collected:

A. Direct emission reduction: DriLUC, RACSA and scenarios
B. Sustainable development pathways: livelihood analyses and scenarios
C. Transaction costs:
   - o C1. Additionality: scenarios
   - o C2. Leakage (leakage can be area, agent or product based: shifts in area allocation, movement of people into or out of the area, displacement of market value chains to other areas) : scenarios + livelihood analyses
   - o C3. Permanence (what is the expected emission trajectory after the project ends)
   - o C4. Accounting rules: RACSA + scenarios
   - o C5. Rights to co-invest and share in future net benefits: RATA and FERVA
   - o C6. Certification: all of the above, with analysis of uncertainty and gaps that require further replication or efforts.

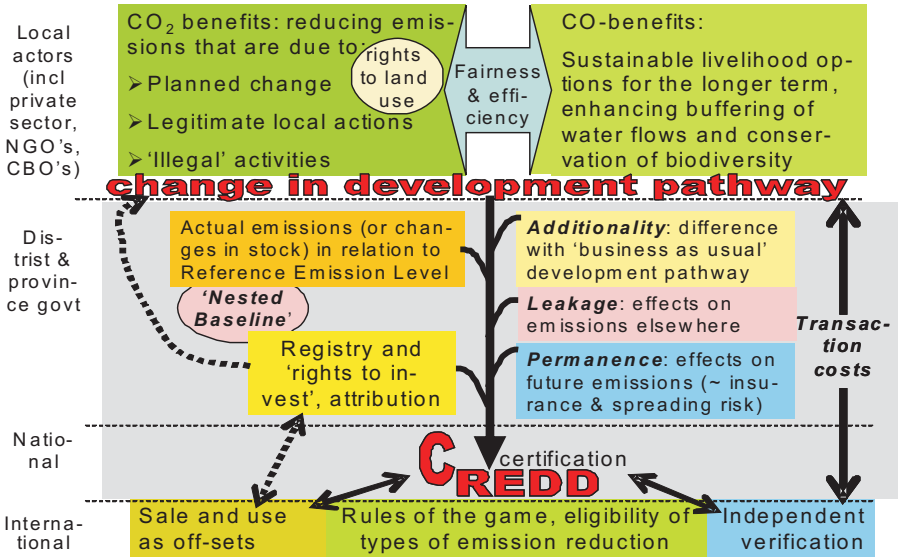

Figure 2. A few points that merit specific attention among the 'transaction costs'

Additionality arguments

There are many 'paper parks' and areas that are protected in theory, but not in practice. Yet, the use of funding for 'emission reduction' cannot be easily applied for protecting what is supposedly already protected. 'Reference emission levels' or baselines refer to the part of 'business as usual' that is accepted as a reflection of reality after the local agencies have taken up their responsibility. There now are estimates of the degrees of forest C stock loss under various types of forest protection status, and these can be used for arguing that more effective protection will reduce emissions. It generally is easier to argue the case if larger areas are considered that include the protected area plus surrounding landscape where people make a living. Emission reduction viewed at that larger scale can be compared with a business as usual scenario.

Leakage indicators

Four forms of leakage merit specific attention:

a) Leakage through shifts in spatial planning: if spatial planning shifts pressures to convert high-C stock lands to other uses, the impact on these other lands needs to be considered, even if this is outside of the 'project' area. This applies at national, provincial and district scale land use planning exercises as well as logging or tree crop concessions. Only at national scale does 'leakage' change in character, as 'national sovereignty' considerations stop and markets take over.

b) People-based leakage. If after implementation of a REDD/REALU program a landscape will provide livelihoods for less people, the project is responsible for where they go and the emission consequences they have. If it attracts more people and still achieves emission reduction, real progress is being made.

c) Commodity-based leakage: if an area currently provides markets with goods that tend to reduce C stocks, e.g. charcoal or agricultural products, any project that reduces emissions as well as local commodity production is likely to shift pressures elsewhere. Only if total production is constant, or external demand reduced, can a project claim emission reduction. Otherwise, partial leakage needs to be accounted for.

d) Cross-sectoral leakage: absorbing more labour in productive parts of the landscape, to avoid forms of leakage mentioned above, may well increase greenhouse gas emissions from an 'agricultural sector' within a landscape that is being assessed. Agricultural intensification can well be part of an emission reduction package, bit its emissions need to be accounted for as part of the project design, or as 'leakage' if outside of the project boundary.

TUL-SEA: A negotiation support toolbox for Integrated Natural Resource Management