



Objectives workshop Morogoro, Tanzania, 5-6 February 2013

Held to inform the project:

Support Tanzania in the development of multiple benefits maps to inform REDD+ safeguards policies

Workshop report

Objectives of the project *Support Tanzania in the development of multiple benefits maps to inform REDD+ safeguards policies*, executed by UNEP-WCMC in collaboration with TFS, FAO and UNDP:

1. Contribute to, and support the development of enhanced national scale spatial datasets, statistics and maps on biodiversity and ecosystem services for Tanzania for the purpose of informing REDD+ policies and measures, notably land use planning and prioritization of REDD+ intervention zones. The themes referred to in the Cancun environmental safeguards, including natural forest and priority areas for multiple benefits (carbon, biodiversity, other ecosystem services) will be mapped, building on and using the NAFORMA plot data alongside other relevant national scale spatial datasets.
2. Build capacity within Tanzania on spatial analysis of datasets of relevance to multiple benefits and environmental safeguards for REDD+ and on approaches to developing information systems for safeguards.

Objectives of the workshop:

1. Discuss REDD+ multiple benefits, planning and environmental safeguards in the Tanzanian context, define relevant questions that can be answered in the context of the project, and associated maps. **Output: A list of priority questions and maps for the project, ranked by importance.**
2. Discuss and review available datasets; which ones are relevant to the questions identified. Discuss quality and data permission issues. **Output: an improved inventory of available datasets and a clarified understanding of what datasets are most relevant to the project.**

Introduction

The workshop was attended by 20 participants, including representatives from Tanzania Forest Service, Tanzania National REDD+ Task Force, NAFORMA, Sokoine University of Agriculture, FAO, UNDP and civil society. The participant list can be found in Annex 1.

The workshop was opened with remarks by chairman Mr. Evarist Nashanda, TFS, followed by an introduction to the project and workshop by Dr. Neil Burgess and Ms. Lisen Runsten, UNEP-WCMC. Mr. Erneus Kajjage from the Clinton Foundation gave a practical overview of REDD+ safeguards and

related international frameworks. Ms. Rahima Njaidi, NTRF- Safeguards Advisor, gave a presentation on the status of development of National REDD+ Safeguards in Tanzania.

As feedback to the project overview presentation by UNEP-WCMC, participants remarked that a monitoring component would be desirable. The project will contribute to identification of multiple benefits and biodiversity indicators that Tanzania may want to monitor, and assist with thinking on approaches to developing information systems for safeguards.

Exercise to consider priority areas, benefits and risks from different REDD+ activities

The type and amount of benefits that REDD+ can deliver will vary depending on a range of biophysical and socioeconomic factors associated with the location where activities are implemented, and the measures that are used. Spatial information about these factors can be very useful as decision support for planning for multiple benefits from REDD+. An initial exercise was conducted to start thinking about the potential for achieving multiple environmental benefits from REDD+ actions at different locations in Tanzania, and thus contribute to addressing environmental aspects of the Cancun safeguards.

Participants divided into five groups, one for each potential REDD+ activity¹, and discussed where in Tanzania there could be potential for implementing appropriate measures. They discussed which benefits should be represented in priority areas for such activities, what the current pressures/drivers of deforestation or forest degradation are, and what kinds of maps could be produced to inform these questions.

This exercise concluded that priority areas for REDD+ vary depending on the type of activity considered, but that the pressures on forests very often are the same. Coastal forests and mangroves (with non-permanent land-use change) were mentioned as priority for several types of activities; certain types of protected areas, erosion prone areas, and mountain and catchment forest were identified as important for sustainable management of forests; and areas suffering from degradation and desertification as priority for enhancement of forest carbon stocks, for example. Places with unique biodiversity were cited as a general priority. Population growth and weak governance were identified as indirect drivers of deforestation and forest degradation, while agricultural encroachment, settlement establishment, fuelwood/charcoal/timber extraction, fires, mining and overgrazing are direct drivers in many areas.

The groups further discussed relevant maps to inform decision making. For identifying priority areas, map layers identified included vegetation maps, biodiversity layers (NAFORMA and others), agro-ecological zones, protected areas and management units, for example. There were also discussions on how threats to forests could be mapped, including data on fire trends, infrastructure, and population growth trends. Groups also considered how the detailed content of the NAFORMA dataset can be useful, e.g. human impact on trees and forest products usage by villages.

Please see Annex II for a more detailed summary of the results of this exercise.

¹ (1) reduce emissions from deforestation; (2) reduce emissions from forest degradation; (3) conserve forest carbon stocks; (4) implement sustainable management of forests; and (5) enhance forest carbon stocks

Prioritization of outputs for the project

Building on the initial exercise, the workshop was presented with a draft list of relevant parameters and maps for the project to work on, which had been prepared by a smaller planning group in an inception meeting at FAO in Rome, December, 2012. The list reflected three objectives that the project will deliver outputs to address: (1) produce biodiversity and ecosystem services maps from the NAFORMA dataset to illustrate its potential; (2) produce maps on multiple benefits that can support REDD+ planning; and (3) produce maps that can help Tanzania's process on addressing the Cancun environmental safeguards. On request from the group, participants were divided into four groups, three to discuss environmental multiple benefits and safeguards, and one to discuss social benefits and safeguards. Going through the list, participants prioritised the items according to importance and added/subtracted items as they found appropriate. Results from the workshop discussion on environmental multiple benefits and safeguards are shown in Table 1.

The ranking of outputs serves to inform the prioritization of project activities, since it may not be feasible to produce all items in the table due to time or data availability issues. Some items in the list require substantially more work than others. Furthermore, the items in the list feed into each other, and in some cases overlap. A final list will be prepared after the workshop, to reflect the work process implications for each item.

Table 1. Prioritized possible outputs for the project as an output from the workshop. The items in grey were considered of least importance by the workshop.

| NAFORMA focus topics | REDD+ planning | Informing safeguards |
|--|--|---|
| 1. Species range data/species richness according to NAFORMA data | 1. Assess key areas for different REDD+ activities based on drivers; | 1. Water catchment areas and their status |
| 2. Species richness including vertebrates according to other datasets | 2. Overlay ecosystem services and key drivers to identify areas at risk; | 2. Identify natural forests and plantation areas |
| 3. Combine tree diversity and vertebrate diversity to compare patterns; | 3. SAGCOT, Mtwara, Katavi agricultural initiative + biodiversity + corridors + protected areas + how much forest | 3. Assess areas suitable for different REDD+ activities; |
| 4. Identify areas of importance for tree conservation and compare with priority areas for other species; | 4. Villages with + villages without management plans | 4. National scale maps showing pressures/threats to forests and biodiversity (fire, biomass energy and agriculture expansion) |
| 5. Forest biomass/carbon + Red Listed species occurrences + protection/ conservation status | 5. Level of carbon stocks and biodiversity by tenure/forest management type (dependent on data quality); | 5. Overlay areas of possible suitability for REDD+ activities/project with information on forest dependent communities and indigenous groups and forest governance/JFM/CBFM |
| 6. Map species usage patterns of most commonly used from the NAFORMA socioeconomic dataset | 6. Map areas without clear land tenure (village bound.+ pop dens. + forest cover) and compare to areas of importance for biodiversity and carbon | 6. Wildlife corridors as priority areas for REDD+ (based on existing Tz study) + threat (e.g. population, habitat destruction) |
| 7. Map distributions of these tree species | 7. Nature reserves with potential for ecotourism | |
| 8. Assess usage pattern of NWFPs; | 8. Hydropower infrastructure (+risks) + valuable areas, e.g. mangroves | |
| | 9. Identify areas for restoration opportunities; | |

The group that discussed social benefits and safeguards agreed that the following parameters would be useful to map: (1) population density change, (2) villages with good benefit sharing, (3) poverty level using different indices, and (4) land tenure arrangements.

In the mapping discussions, participants further noted that land use plans are good tools for controlling the use of forests, and that planning at village level can be a good solution to manage the issue of degradation on village land. There was also a discussion on climate change adaptation, and whether maps could be created to illustrate this topic. Adaptation is critical in places of deforestation and forest degradation, since the vegetation protection has been removed and erosion and sedimentation are associated problems.

The degree of fragmentation on a landscape level was discussed, and its impact on biodiversity and species composition. Some species benefit from landscape fragmentation, but many species lose. The plenary discussions identified water catchment as high priority information, including water related ecosystem services and infrastructure. How wildlife corridors can be linked by REDD+ areas was also indicated as an interesting question. Identifying areas with unique values that can be developed for ecotourism is a general ongoing process in Tanzania. The inclusion of data on agricultural and land-use planning initiatives was encouraged, as feasible.

Data availability

On the final day of the workshop, Mr. Soren Dalsgaard, FAOTZ, presented the National Forest Monitoring and Assessment of Tanzania (NAFORMA) project and components of the collected data. Together with Mr. Lauri Tamminen, FAO, he demonstrated the new data calculation interface for NAFORMA. Dr. Neil Burgess, UNEP-WCMC, gave an overview of other available datasets of relevance for the project, including biodiversity information, weather data, protected areas, land cover, and socio-economic data.

Next, participants formed three breakout groups to (1) discuss what data is needed to answer the questions and produce the maps listed the day before, (2) identify relevant datasets (3) identify contact persons for obtaining them. A table was completed with this information in each group, and subsequently discussed in plenary. The data table will be used by UNEP-WCMC and TFS to identify additional datasets that can be useful in mapping multiple benefits in Tanzania. Since the contacts for each dataset were suggestive and will require verification, the table is not included in this report. An updated table will form part of the final project outputs.

Conclusions

The workshop achieved its objectives to (1) produce a list of priority questions and maps ranked by importance which will inform the final outputs of the project, and (2) an improved inventory of available datasets and a clarified understanding of what datasets are most relevant to the project, to inform planning and outputs. The workshop also served to introduce people to one another, inform Tanzania-based actors about the project, give an overview of Cancun environmental safeguards and the ongoing process in Tanzania to develop REDD+ safeguards.

Annex I – Participant list

| | Name | Affiliation | Email |
|----|-------------------------|--|--|
| 1 | Amir, Said | TFS-GIS | saidamirmb@gmail.com |
| 2 | Burgess, Neil | UNEP-WCMC | nburgess@wwf.org.uk |
| 3 | Chamuya, Nurdin | TFS/NAFORMA Did not attended | nuruchamuya@yahoo.com |
| 4 | Dalsgaard, Soren | FAOTZ | soren.dalsgaard@fao.org |
| 5 | Ernst, Ralf | UNDP | ralf.ernst@undp.org |
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| 8 | Kaijage, Erneus | Clinton Foundation | ekaijage@clintonfoundation.org |
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| 11 | Luwuge, Betty | TFCG/MJUMITA (Pilot project) | bluwuge@gmail.com |
| 12 | Kijazi, Adam | WWF-Tanzania | akijazi@wwdftz.org |
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| 16 | Mwikila, Dismas | UN-REDD National Programme Coordinator | dis20tz@yahoo.co.uk |
| 17 | Nashanda, Evarist | NRTF/TFS | evarist.nashanda@gmail.com |
| 18 | Ngaga, Yonica | Professor, SUA/NCMC Did not attend | ngaga@suanet.ac.tz ; yngaga@yahoo.co.uk |
| 19 | Njaidi, Rahima | (TFCG/MJUMITA)/NTRF- Safeguards Advisor | rnjaidi@gmail.com |
| 20 | Ravilious, Corinna | UNEP-WCMC | corinna.ravilious@unep-wcmc.org |
| 21 | Runsten, Lisen | UNEP-WCMC | lisen.runsten@unep-wcmc.org |
| 22 | Tamminen, Lauri | FAO | lauri.tamminen@fao.org |
| 23 | Thani, Ally | CARE/HIMA(pilot Project) Did not attend | ali.thani@mwambao.or.tz |

Annex II – Workshop agenda

5 February

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|--------------|--|--|
| 9h00 - 9h15 | Opening remarks | TFS CEO Delegate |
| 9h15 – 9h45 | Background and introduction to the project | UN-REDD |
| 9h45 – 10h30 | Practical overview of REDD+ safeguards | Mr. Erneus Kaijage, Clinton Foundation |
| | Past and upcoming activities on REDD+ safeguards in Tanzania | Ms. Rahima Njaidi, NTRF-Safeguards Advisor |

10h30-11h00

Tea Break

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|-------------|--|-----|
| 11h00-13h00 | Breakout group work on relevant spatial information for REDD+ planning of multiple benefits and environmental safeguards | ALL |
|-------------|--|-----|

13h00-14h00

LUNCH

| | | |
|--------------|---|-----|
| 14h00 -16h00 | Group work to: prioritize among possible maps and questions to be answered in the project | ALL |
| 15h00-16h30 | Discussion in plenary | |
| 16h30-17h00 | Conclusions and wrap up | |

6 February

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|-------------|---|--|
| 09h00-09h15 | Overview of the day | UN-REDD |
| 09h15-09h45 | Presentation of NAFORMA | Mr. Soren Dalsgaard |
| 09h45-10h15 | Presentation of other relevant datasets | Mr. Charles Meshack and Mr. Neil Burgess |

10h15-10h45

Tea Break

ALL

| | | |
|-------------|--|-----|
| 10h45-11h45 | Breakout groups to (1) discuss what data is needed to answer the questions and produce the maps listed the day before, (2) identify relevant datasets (3) identify contact persons for obtaining them. | ALL |
| 11h45-13h00 | Summary in plenary of what data is available, and identify gaps in data availability. Redefine questions if needed. | ALL |

13h00-14h00

LUNCH

ALL

| | | |
|---------------|--|------------------|
| 14h00 – 15h30 | Practical discussion resulting in work plan, especially for next working session | |
| 15h30-16h00 | Conclusions | UN-REDD |
| 16h00 -16h30 | Wrap up | TFS CEO Delegate |

Annex III – results of group exercise to consider priority areas, benefits and risks from different REDD+ activities

Participants divided into five groups, one for each potential REDD+ activity², and discussed where in Tanzania measures might be implemented. They discussed which benefits should be represented in priority areas for such activities, what the current pressures on forests are, and what kinds of maps could be produced to inform these questions.

Potential areas for reducing emissions from deforestation were defined as areas close to population centres (e.g. DSM, Pugu, Kazimzumbi), the southern regions of the country, open access areas and border regions. Drivers of deforestation include charcoal, agriculture expansion, mining, logging, infrastructure development and settlement establishment.

Potential areas for reducing emissions from forest degradation could be situated in many places where forest degradation occurs, but should be prioritized to the most vulnerable areas, forests near population centres and village land. Population growth and weak governance are drivers of forest degradation in the country in general. In *Miombo woodlands*, fire and extraction of fuelwood/charcoal/timber are major drivers. In *coastal forest*, important drivers include logging, agricultural expansion, firewood/ charcoal extraction, oil and gas exploration and grazing. In *mangroves*, logging and agricultural activities were highlighted, and on *savannah woodlands*, overgrazing was mentioned as problematic for causing degradation. Land use planning at village level can be a good solution to manage the whole issue of degradation on village land.

Potential areas for sustainable management of forests could be found everywhere there is forest, outside of no-take areas. Multiple benefits that would define priority areas for this activity include areas of high biodiversity, high value forest, water catchment forest, erosion prone areas, and areas that many people rely upon. Pressures on forests in such areas include fire, encroachment, charcoal production, overgrazing, corruption, population growth, lack of alternative energy, population growth and lack of staff/resources to control these drivers. Parameters that could be useful for creating maps to support this activity may include harvest vs. re-growth, biomass at different points in time, and FMU's with FSC or other certification.

Potential areas for conservation of forest carbon stocks could include nature reserves and national parks, catchment forests, mangroves and Village Forest Reserves (VFR). Threats to these forest areas currently include agriculture, mining, urbanisation, overgrazing and logging.

Potential areas for enhancement of forest carbon stocks, and the benefits that should be prioritized include *coastal forest and mangroves* for protection of shores (e.g. the Rufiji delta, Zanzibar, DSM, Tanga); *Itigi thickets* for their unique biodiversity; areas around *Shinyanga* that are semi-arid and degraded, but valuable for grazing and to some degree fodder; and areas around *Tabora*, which are miombo woodland, with tobacco farming. Participants' thinking mainly focused on restoration activities. *Coastal forest and mangroves with non-permanent land-use change*, like Mtwara, Tanga, Lindi, could be particularly suitable. In *Shinyanga*, activities could include agrosilvopastoral practices, controlled grazing and rotations. In *Tabora*, using waste from tobacco plantations as fuel, planting trees, law enforcement, natural regeneration, conservation agriculture, village land-use plans and

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CBFM, ecotourism and beekeeping are some of the measures that could be considered. Beekeeping was suggested to give the same income as tobacco plantations, while maintaining an intact forest cover. Drivers of deforestation and forest degradation in these areas include: *Coastal forest and mangroves*: rice cultivation, charcoal, timber, salt extraction, hotels – tourism, shrimp farming; *Itigi tickets*: grazing, mining, settlements, farming; *Shinyanga*: clearing of trees to get rid of the tsetse fly and overgrazing; *Tabora*: converting forest to tobacco plantations and displacement of pressure.