**Output statement**

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| **Title** | **How could National Forest Inventories contribute to a REDD+ Safeguards Information System?**  |
| **Aim of the output** | Produce a brief report on how the information collected in National Forest Inventories could feed into a Safeguards Information System for REDD+; and whether there is any scope to modify NFI surveys in small ways to better provide indicators for an SIS. The Tz NFI (NAFORMA) is used as an example. |
| **Audience** | Informed professional audience |
| **Style of writing**  | Policy oriented |
| **Format** | Briefing note? Other UN-REDD series? |
| **Outline content**  | 1. **Introduction**
	1. Introduction to Cancun Safeguards. Broad requirements and purpose of an SIS under UNFCCC – emphasis on drawing on existing information sources & emphasis on country-driven nature of SIS
	2. What is an NFI and how can it vary between countries (i.e. objectives)? Introductory comparison between Tz, Zambia and Ecuador?
	3. What are the benefits of allowing the NFI to contribute to the SIS? (emphasize that an NFI can’t/won’t/doesn’t have to provide all info for a SIS)
		1. Closely linked (proximity-wise) to the forest resources themselves and therefore the likely users & suppliers of those resources
		2. Efficiency of human, financial and technical resources, and time (+ process-efficient)
		3. Coordinating efforts across national institutions, including benefits in terms of broadening ownership and buy-in
		4. Funding management
		5. …
2. **Examples of relevant information for an SIS** . [using SEPC and BeRT as framework for what kinds of information a country may want to collect on safeguards, generally – and from there what kind of info the NFI could provide/contribute]
	1. Context: Indicators from different stages of REDD+ implementation:
		1. Structure – reflect policies, strategies, mechanisms or regulations that have been put in place. Have PLRs been put in place that address the safeguards?
		2. Process – reflect the implementation of measures, activities and projects. Is it transparent, participatory, etc.?
		3. Impact – relate to the consequences of REDD+ implementation for the social and environmental conditions in the areas influenced by REDD+, i. e. to benefits achieved and risks avoided. Discussion on cause and effect. What types of impact data can be relevant? A general, country wide assessment to capture leakage/displacement and trends in populations of key species, complemented by targeted impact data at the sites of REDD+ interventions?
		4. Scale – reflect the administrative level and representativeness of the data sought after
	2. If the country wishes to be more ambitious than the UNFCCC requires and analyse and validate its information internally: what makes a good indicator? Analysis of relationship between indicator and reality – validation for confident interpretation (statistical?) Control data (matching analysis a requirement)?
3. **How can the biophysical and socioeconomic data collected under Tanzania’s NFI (NAFORMA) contribute to its SIS? What factors influence whether an NFI can contribute to national scale indicators of REDD+ safeguards?**
	1. Overview of Tanzania NFI data, listing parameters that relate to the Cancun safeguards - how do data collected and derived products relate to the safeguards**?** What parameters in the NAFORMA inventory are relevant to the 7 safeguards?
	2. Categories of information that an NFI could contribute with [building on and summarizing outcomes of (a)]:
		1. Information on forest structure and habitat suitability
		2. Information on use and management of forest products and functions by local communities
		3. Information on intensity of pressure
		4. Information on status of intervention (where?)
		5. Information on impact of intervention (biophysical as well as socio-economic and governance)
		6. Information on awareness and compliance of forest policies
	3. What factors influence whether an NFI can contribute to national scale indicators of REDD+ safeguards?
		1. **Scope/objective of NFI**

Funding determines the limits (sampling design intensity for example), and the scope will determine design. If the overwhelming objective is to produce biomass estimates for various forest types, then sampling design will reflect that and its relevance to more human-oriented or biodiversity surveying severely limited. *Example:* Can a NFI inventory design be efficiently used to monitor biodiversity apart from trees? What would be required to do this? Some NFMA countries have collected data on indicator species and shrubs. In some countries also on animals (tracks & scat).* + 1. **Methods**Household surveys, focus group discussions interviews, etc. Potential use of national census data
		2. **Scale & design**

*Design/stratification/extrapolation*Plot design – implications for SIS information – example: tree diversity. Are plots/clusters representative of e.g. forest types, forest isolation/fragmentation, pressure, uses? Depends on specific objective of NFI. If human pressure on forest resources the scope of the NFI, then sampling design will focus on where change is occurring. If this is not an objective, then areas under pressure will not determine design. To what extent does change in the plots reflects change in the landscape overall? Depends on what the original objective of the NFI was. If specific to capturing forest biomass, then sampling design most likely geared to where forests are located. Sampling design has a HUGE impact on the potential contribution of NFI data to SIS. In Tanzania, sampling design determined according to forest volume, which is typically where human populations are low to nil. What are the criteria for the stratification – will the plots be distributed so that they provide meaningful information on impact of REDD+ activities? Usefulness of data inside and outside areas where REDD+ actions are known to have had effect – use information from the plots to attribute changes to specific impacts of REDD+ (e.g. comparing with a business-as-usual scenario). * + 1. **Timing**

Is the periodicity of the NFI sufficient to be useful for the SIS? Will the NFI be periodically repeated? If so, how many of the plots will be surveyed and how often? Explore different possibilities (e.g. 1/5 resurveyed every year, full resurvey every 5 years, every 10 years…)* 1. Will the plots be treated differently by the local population or not (difficult to predict – will depend on local perceptions of the exercise)?
	2. Who is collecting the data? (Government authorities who may influence responses. Also men or women?)
	3. What are the strength and limitations of these types of information?
1. **In what ways could an NFI be designed to better serve an SIS?**
	1. Institutional capacity established for field monitoring – teams could be complemented with relevant biodiversity expertise if the country attempts an SIS with tier 3 biodiversity data (sensu Gardner et al. 2011).
	2. Statistics on habitat information in the NFI could be combined with biodiversity related information to be defined and would potentially best be monitored by communities
	3. Is the NFI expected to contribute field monitoring (IPCC tier 3) data on carbon? If so, it might be possible that the location of monitored plots could be adjusted to accommodate sites of REDD+ implementation? This would make the inventory more useful for REDD+.
	4. Methods of data collection – use of enumerators who are not seen as police and greater employment of female enumerators
	5. More focused sampling design to consider population centers or administrative level stratification to have greater representativeness of the population at large (as it stands your average NFI and its associated socioeconomic data gathering miss out on urban centers because the focus naturally is on where the trees are. Urban centers in many countries place a much higher burden on forests than rural populations)
2. **Examples of other potential sources of data to meet SIS information needs in terms of impact indicators (complementary to an NFI or as an alternative to it)**
	1. Biodiversity indicators: Draw on Val’s 2002 paper. Degree of degradation within a species range…
	2. Socioeconomic indicators: Forest-related modules which could be utilized alongside of population census. In other words, to rather focus on inserting a few socioeconomic (SIS) indicators in a guaranteed, long-term national platform.
3. **Conclusions**
	1. NFI won’t cover all safeguards/safeguards information, but could contribute significantly. For SIS, also wish to evaluate other existing information systems and sources. Look at what the country already has in place and how to maximize efficiency/resources.
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| Internal review process (By whom? When?) | Outline developed by:Lera Miles, Lisen Runsten, Rebecca Mant, Kristin Devalue, Rebecca Tavani, Caroline DeVit, Philippe Crête.  |
| **Translations** |  |
| **Related outputs (and how they relate)** |  |