

**Submission from Government of INDIA on**

**Methodological guidance for activities relating to reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries**

1. The draft conclusions proposed by the Chair of SBSTA in its thirty fourth session (SBSTA 34) invited Parties and accredited observers to submit to the secretariat, by 19 September 2011, their views on the issues identified in paragraphs 1, 2 and 3 of the draft conclusions (FCCC/SBSTA/2011/L.14).

**2. Systemic approach leading to operationalization of REDD-plus:**

During the negotiations leading to COP decision on REDD-plus, the need for a systemic approach which in due course of time could lead to actual operationalization of REDD-plus mitigation actions and activities in forest sector were flagged. Elements of systemic approach include technical, social and governance issues, which are described in paragraphs 70, and 71 of COP decision 1/CP.16. All these issues are interconnected, and are covered in SBSTA conclusions of 16 June 2011 (FCCC/SBSTA/2011/L.14).

**3. SBSTA in brief has asked for submissions on**

- i) Issues identified in appendix II to COP decision 1/CP.16. In nutshell, these issues are
  - a. Identification of land use, land-use change and forestry activities in developing countries including the associated methodological issues to estimate emissions and removals resulting from these activities, and assess the potential contribution of these activities to the mitigation of climate change,
  - b. Development of modalities relating to a national forest reference level {paragraph 71(b)} and a robust transparent national forest monitoring system {paragraph 71 (c)},
  - c. Development of modalities for measuring, reporting and verifying anthropogenic forest-related emissions by sources and removals by sinks, forest carbon stocks, and forest carbon stock and forest-area changes resulting from the implementation of the mitigation activities in the forest sector {paragraph 70}
- ii) Issues identified in appendix I to COP decision 1/CP.16, which require Development of guidance related to a system for providing information on how the safeguards referred to in appendix I to decision 1/CP.16 are being addressed and respected {paragraph 71 (d)}.

**4. Government of India submissions on**

**i) Issues identified in appendix II to COP decision 1/CP.16.**

- a. Identification of land use, land-use change and forestry activities in developing countries including the associated methodological issues to estimate emissions and

removals resulting from these activities, and assess the potential contribution of these activities to the mitigation of climate change

**i) REDD-plus activities:**

India intends to select 'plus' activities of REDD-plus, viz, conservation, sustainable management of forests, and enhancement of forest carbon stocks as part of its national strategy. Strategy proposed to realize enhanced potential of forestry sector in mitigation of climate change is two pronged- first to focus on actions that promote removals and reduce emissions, and second the actions that improve and enhance ecosystem goods and services. In real practical sense, both actions are closely interrelated. Mitigation strategy aims to i) expand and improve the present forest and tree cover, and ii) to promote more efficient use of fuelwood and replacement of energy intensive metal and plastic products with wood substitutes from sustainable sources in building sector. Constant monitoring and estimation with respect to quantity and quality of forest and tree cover are basic prerequisites of a sound carbon accounting system at the national level.

**ii) Methodological issues:**

To facilitate compilation of accounting of forest carbon stocks at national level, India intends to devolve more and more responsibility on the State Forest Departments (SFDs) to carry out the assessment and estimation of forest carbon stocks (FCS) in conjunction with the biennial exercise of assessment of forest and tree cover (FTC). This is considered essential to improve the precision level for estimation of FCS as the State Governments can cover more number of sample points, than that being covered by the FSI at present due to constraints of time, finances and in adequate number of technical experts. In future, the SFDs can take the responsibility of carrying out the inventories for FTC and FCS by more effectively utilizing the services of their Remote Sensing Centres/Space Application Centres. FSI at that time can act as the source for providing classified forest cover maps required by the States for the purpose.

**iii) Methodological issue of precision in estimates**

On the question of limits of error that will be acceptable for FCS estimation, especially in view of the continuous refinement of technology, it is intended that at the national level, the biennial assessment may conform to  $\pm 5\%$  precision (confidence limits), and at the State level it may be  $\pm 20\%$ , which may be reduced to  $\pm 10\%$  by the year 2017 (third biennial assessment beyond 2011). Same precision as at State level may also be maintained at the district level. The aforesaid is summed up as under:

For estimation of forest carbon stocks (FCS)

Precision level at national level  $\pm 5\%$

Precision level at state/district level  $\pm 10\%$

As regards frequency of compiling and submitting national FCS accounts, India believes that it should coincide with the FSI's biennial State of Forest Report (SFR) and, therefore, should be in multiple of 2 or 4 years.

**iv) Mitigation potential of REDD-plus activities and financial requirement:**

In tune with the nation's forest policy, the national strategy aims at enhancing and improving the forest and tree cover along with the biodiversity, of the country thereby enhancing the quantum of forest ecosystem services that flow to the local communities. The services, inter alia, include fuelwood, timber, fodder, NTFP, biodiversity, hydrological services and also carbon sequestration. It is underlined that in the Indian context, carbon service from forest and plantations is one of the co-benefits and not the main or the sole benefit. Present initiatives like National Afforestation Programme (NAP) of the MoEF, together with programmes in sectors like agriculture and rural development are on an average adding or improving 1 million ha (mha) of forest and tree cover annually in our country. This annually adds about 1 million tonne of carbon incrementally, and combined with the accretion of biomass in our managed forests, protected areas, and in tree cover outside the government forests, the total carbon service at present is estimated at 138 mt CO<sub>2</sub>eq every year (Kishwan et al. 2009). The cost of the BAU reforestation and afforestation activities contributing in mitigation and adaptation is estimated at USD 1 billion annually. Based on integration of the proposed National Mission for A Green India or Green India Mission (GIM) which is being finalized with the BAU, the carbon service will get enhanced by 50 to 60 mt CO<sub>2</sub>eq every year by 2020 and onwards. The GIM is estimated to cost USD 10 billion in 10 years @ USD 1 billion a year. GIM is intended to run over a period of 10 years beginning 2012-13. GIM aims at increasing the quantity and quality of 10 million hectares of forest and tree cover.

To sum it up, implementation of the existing activities and GIM would require a financial investment of USD 2 billion every year. India expects sizable part of additional cost of GIM being met from the REDD-plus financial support.

**b. Development of modalities relating to a national forest reference level {paragraph 71(b)} and a robust transparent national forest monitoring system {paragraph 71 (c)}**

**i) National forest reference level**

India gives highest priority to fixing of the reference level for carbon stocks in its forest and tree cover with a view to making assessment, monitoring, verification and reporting of

- i) baseline forest carbon stocks, and
- ii) incremental forest carbon stocks

India considers that the reference level (RL) in essence will be a business as usual (BAU) forest carbon stocks position based on the historical trend of conservation, and removals with the projected trends of i) population growth, ii) GDP growth, iii) energy requirement, and iv) any other relevant parameter, duly factored in preparation of the BAU. The RL will need to be fixed with consensus amongst intra-country stakeholders which would include the Central Government, State Governments, forest experts and scientists, local community and civil society.

**ii) Institutional mechanism for REDD+ at national level**

National accounting of Forest Carbon Stocks will be based on assessment of i) Biomass Carbon, and ii) Soil Organic Carbon (SOC). The assessment of carbon stocks can be made at an agreed interval with respect to the RL. The Government of India has established a REDD+ Cell in the Ministry of Environment and Forests having the task of coordinating and guiding REDD plus related actions at the national level, and to discharge the role of guiding, and collaborating with the State Forest Departments (SFDs) to collect, process and manage all relevant information and data relating to forest carbon accounting. National REDD+ Cell would also guide formulation, development, funding, implementation, monitoring and evaluation of REDD+ activities in the States. The Cell will assist the Ministry of Environment & Forests and its appropriate agencies in developing and implementing appropriate policies relating to REDD+ implementation in the country.

- c. Development of modalities for measuring, reporting and verifying anthropogenic forest-related emissions by sources and removals by sinks, forest carbon stocks, and forest carbon stock and forest-area changes resulting from the implementation of the mitigation activities in the forest sector {paragraph 70}

**i) Institutionalization of national level forest carbon stocks accounting**

In so far as national forest carbon stocks accounting is concerned, the Forest Survey of India (FSI) has adequate capability in this field. Backed by its expertise in estimation of forest and tree cover, and biomass thereof in the country, the FSI is capable of handling this national responsibility. The FSI will act as the Lead Institution for the country and will have a networking approach involving Indian Council of Forestry Research and Education (ICFRE), National Remote Sensing Agency (NRSA), Indian Institute of Remote Sensing (IIRS), Indian Institute of Science (IISc), Wildlife Institute of India (WII), and any other organization that FSI deems fit to co-opt.

India intends to further work on i) technological and methodological issues, and ii) policy and definitional issues to be able to contribute proactively in the future deliberations of the UNFCCC on REDD-plus. Review and fine-tuning of technological, methodological and connected infrastructural capabilities are considered to be essential for operationalizing the national level forest carbon stocks accounting.

- ii) Issues identified in appendix I to COP decision 1/CP.16, which require Development of guidance related to a system for providing information on how the safeguards referred to in appendix I to decision 1/CP.16 are being addressed and respected {paragraph 71 (d)}

The information furnished should contain the following

- (i) Forest carbon stock accounts at the national level
- (ii) Period of report

- (iii) During report period
  - a. Area brought under
    - i. Reforestation (ha)
    - ii. Improvement in forest cover/natural regeneration (ha)
    - iii. Agroforestry/tree cover on non-forest lands/afforestation (ha)
  - b. Initiatives to reduce use of fuelwood
    - i. Number of improved wood-burning cookstoves distributed
    - ii. CNG units distributed
  - c. Forest and wooded area conserved
    - i. Soil and water conservation measures (ha)
    - ii. Fire protection measures (ha)
    - iii. Cases of illegal felling (no)
  - d. Area of forest diverted for developmental works
    - i. Extent and brief description of forest land diverted (ha)
    - ii. Compensatory mitigation measures planned/taken with description (ha)
    - iii. Policies, laws, guidelines, rules, etc. regulating/restraining diversion of forest land
- (iv) Certificate that activities, actions and initiatives described in (iii) above are in consonance with national forest policy/programmes, national REDD-plus framework and strategies, and are not detrimental to the quality and extent of the natural forests
- (v) Number of panchayats, gram sabhas, local communities, Joint Forest management Committees, Eco-development Committees, Forest Protection Committees with due representation of women participating in the REDD-plus activities
- (vi) Number and description of capacity building initiatives for stakeholders undertaken
- (vii) Relevant new laws, policies, guidelines, protocols, government orders, executive instructions implemented during the report period

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