

Minutes of First Meeting of REDD+ Readiness Roadmap Preparation

Working Group 1; National Forest Monitoring System (NFMS) and Forest Reference Emission Levels/Reference Levels (RELs/RLs)

Meeting held on May 03, 2013 in Islamabad

The first meeting of working groups for REDD+ Readiness Roadmap held on May 03, 2013 in Islamabad. There are four working groups (WGs). The WG1 is for National Forest Monitoring System (NFMS) and Forest Reference Emission Levels/Reference Levels (RELs/RLs).

The following members of the WG1 attended the meeting, discussed each item of the agenda and made decisions.

Sr. No.	WG Member	Responsibility	Organization	Email Address/ Cell#
1.	Dr. Syed Moazzam Nizami/ Dr. Serwat N Mirza	Chairperson	Arid Agriculture University	moazzam.nizami@uair.edu.pk 51 9290019 03215029381
2	Dr. Shahzad Jehangir	Member	MOCC	jehangir2000@hotmail.com 0519245586 0306-4288079
3.	Mr. Abdul Sattar Khatri			
4.	Mr. Raees Khan	Member	FAO	Raees.khan@fao.org 03468544194
5.	Dr. Mohsin Iqbal	Member	GCISC	mohsin.iqbal@gcisc.org.pk +92-51-2077300 Ext: 457
6.	Dr. Bashir Ahmad Wani	Member	SLMP	wani48@hotmail.com 0321-5179203
7.	Major Muhammad Tanvir	Member	Survey of Pakistan	dmp@surveyofpakistan.gov.pk 0519290222,223
8.	Mr. Irfan Akhtar	Member	SUPARCO	irfanswat@hotmail.com 03159290306
9.	Ms. Urooj Saeed	Secretary	WWF Lahore	u.saeed@wwf.org.pk , 042 111 993 725 03014511828
10.	Mr. Afrasiyab	Facilitator	MoCC	mafrasiyab@gmail.com 03245029077

The item-wise decisions were made as;

1) Election of Chair and Secretary for the WG

First of all Chairperson and Secretary of the WG1 were selected. Earlier Dr. Syed Moazzam Nizami, Associate Professor Arid Agriculture University was nominated as Chairperson by the Ministry of Climate Change (MoCC) but Dr. Nizami is moving to Chinese Academy of Sciences for Post Doctoral Studies for next two years so Prof. [Dr. Sarwat N. Mirza](#), Dean Faculty of Forestry, Range Management & Wildlife, Arid Agriculture University will Chair this group in future. Ms. Urooj Saeed, World Wide Fund for Nature (WWF) – Pakistan has been selected as Secretary of this group.

2) Review of TORs of the WG and the suggested draft outline of the REDD+ roadmap

The TORs for the working and format of the REDD+ roadmap were reviewed and approved unanimously by the WG1.

3) Identify Issues to be Addressed in the roadmap and data / information that needs to be collected / submitted to support the process

- **Provide material that describes the Forest and Land Use sectors in Pakistan**

All the members of the group agreed that following documents represent the forests and land uses sectors in Pakistan.

- i) Forest Atlas of Pakistan (2012) published by Pakistan Forestry Institute (PFI)
- ii) Forestry Sector Master Plan (1992)
- iii) Forestry and Agriculture statistics
- iv) Non forest Trees Cover (Farmland)
- v) National Forest Assessment (NFA)-WWF (2013)
- vi) Economic Survey of Pakistan
- vii) National Environment Information Management System (NEIMS) (Soft copy)
- viii) LCCS land cover classification system (May be available in 2014-16) by SUPARCO.
- ix) Asia Pacific forestry sector outlook (2008) - Pakistan paper
- x) Survey of Pakistan (SoP) land use plan
- xi) Provincial level data of each Division. (MoCC)
- xii) AL GAS (1989) Asia Pacific least Cost GHG assessment.
- xiii) Study on Timber Ban harvesting in NWFP----- SDC
- xiv) LandCover change analysis of selected HKH region in Pakistan (assessment of 54 districts conducted by WWF – Pakistan and ICIMOD)

It was decided that all these documents should be available/ submitted to Facilitator of the WG1 before 27th May 2013 to be presented in the 2nd Meeting which will be held on 5-6 June 2013. For this purpose

responsibility of provision of all these documents were assigned to entire group. The details are given in the following table:

Sr. no.	Task/s	Responsibility	Submission date of data and information (Deadline: 26 th May 2013)	Submission to WWF Office (Deadline: 1 st June 2013)
1.	Atlas of Pak. (2012),	Mr. Raees Khan	10 th May; The atlas has been acquired from PFI and will be handed over in the coming working group meeting	
2.	Agric Statistics/Forestry statistic	Dr. Mohsin Iqbal	10 th of May	
3.	NFA , NFS Soft copy, Transfer of forest land for non forestry uses, Landcover changes in Swat and Shangla Districts 2001-2009, 60 years Forest Change in District Murree, Mangroves 2010 updated maps	Ms. Urooj Saeed	Next meeting	
4.	Economic Survey of Pakistan, NonForest Tree Cover, Fuelwood Consumption, Asia Pacific Forestry Sector Outlook, ALGAS, FSMP, NEIMS report	Dr. Shahzad	Submitted	
5.	LCCS statistics	Mr. Irfan Akhtar	26 th May	
6.	Digital data, Topo-sheets (Not free of cost)	Major. Tanvir	--	
7.		Dr. Bashir Ahmad Wani		
8.	Publications on C Stocks and BEFs of forest/ forest species.	Dr. Moazzam Nizami	26 th May	

- **Describe and assess current techniques and approaches deployed in Pakistan for:**

- Forest inventory work (on paper and in the field);**
- MRV and monitoring functions**
- Remote sensing and Geographic Information Systems**

a) **Forest Inventory:** It was identified that Working Plan Circle of each Province is carrying out the regular inventories at a periodical interval of 10 – 20 years but they are only considering *The State owned forest* not the private forests.

Techniques: Fixed area plot method is used for conducting data from field. Moreover in KPK, during 1987 a Forest Management Centre (FMC)

was established to monitor the forest cover in KPK. In general there are regular systems for periodical assessment of Forest cover at National level. The techniques used are generally field based and are non destructive sampling and through these, total biomass is generally not calculated.

- b) Internal system of MRV exists at provincial level. Earlier were managed in each forest but now it is not routinely practice for Felling, extraction, regeneration, fire, irrigation etc. **Control forms “ control from D” is part and parcel of compartment history file and were maintained by certain forest division but the practice seems redundant since ban on commercial forest cutting since 1992, nor this form is maintained at circle or provincial level.**
- c) Different Provincial/National/NGOs are deployed for presentation of forest sector data:
 - ✓ Generally, project based approach is include basic or detailed assessments on the basis of the needs of the projects.
 - ✓ RS/GIS technique is restricted to marking of boundary identifying forest cover only.
 - ✓ IPCC revised edition 2006 was used for emission estimation for agriculture by different NGOs.
 - ✓ Fixed Point Photography at micro level by different organization has also been carried out in addition to the use of Satellite Remote Sensing (SRS) data during last 2 decades.
 - ✓ Mainly Landsat was used in FSMP 2004. Now different organization are using multi resolution data for the forest mapping and assessments (30m-46cm)
 - ✓ FAO still producing FRA at 1 km
 - ✓ In consistent visual interpretation, unsupervised classification, supervised (pixel based, sub pixel and object based) image analysis are being used for different organizations for the forest mapping and analysis. Aerial photographs, satellite images of both historic and current years are being used. However, the expertise of usage of LIDAR and SAR data are not available, and there is need for capacity building in this area which would help in under canopy biomass estimation. Delineation of forest Boundaries is being carried out by Survey of Pakistan (SoP), Provincial Forest Departments and by various organisations using single frequency Global Positioning System (GPS), Differential GPS (DGPS) and total stations.

3. Describe and assess current capabilities and capacities for:

a) Forest inventory work;

b) MRV and monitoring function

c) Remote sensing and Geographic Information System

- a) At provincial level Working Plan Circle of each Province is carrying out the regular inventories at a periodical interval of 10 – 20 years. But they are only considering *The State owned forest* not the private forests. All the forest officers are capable of conducting Forest Inventories but in service training/ refresher courses are required. (already explained above)
- b) There should be federal level MRV system which could further strengthen the existing facilities at provincial set up.

- c) Only NGOs/ research organizations/ Universities are conducting research/ studies using GIS and RS.

4. Identify possible gaps in capabilities and capacities that need to be remedied

- ✓ In service training/ refresher courses are required in addition to exposure to latest techniques used around the world.
- ✓ Inventories should not only be for timber yield assessments but ecosystem function should also be considered e.g for inventory of carbon stocks the five pools mentioned by IPCC should be considered.

5. Describe and assess current institutional arrangement for the implementation of NFMS/MRV and monitoring activities.

- ✓ Provincial capacity building be enhanced by GIS/RS techniques
- ✓ Working plan Inventories should be incorporated with latest RS/GIS techniques. (covering states forest and private forest and non forest trees)
- ✓ Expand the scope/jurisdiction for MRV i.e include Guzara + understory vegetation for carbon assessments.
- ✓ NFI sharing should be carried out through networking/internet
- ✓ MRV not a regular function of field forests (unlike financial and administration report) should be made compulsory for employment formation
- ✓ Creation of the position of GIS wing and staffed through required experts in each Provincial Forest department.

REL/RL

1. a) Provide data and information that is available to describe and quality:

The WG1 identified the at present the following documents describe the REL/RL of the country.

- Forestry Sector Master Plan 1992.
- 2004 Monitoring of FSMP
- 2010 mangroves assessment by WWF.
- 60 years Murree report
- Swat and Shangla Change Analysis report by WWF

b) Carbon pools, greenhouse gases, force Mujeure

It was noticed that only NGOs/ Research Organizations and Universities had conducted research on assessments of the C pools in different forest types Viz a Viz :

- Nizami, S.M., S.N. Mirza, S. Livesly, S. Arndt, J.C. Fox, I.A. Khan and T. Mahmood. 2009. Estimating carbon stocks in sub tropical pine (*Pinus roxburghii*) forests of Pakistan. Pak.J.Agric. Sci., 46(4): 266-270
- Mehwish Ali, Javed Iqbal and Syed Moazzam Nizami. Assessment of Carbon Stocks of Moist Temperate Forests of Pakistan using

Remote Sensing Methods and Forest Inventory. Submitted in J. For. Research.

- Flint, E.P. 1994. Changes in land use in South and Southeast Asia from 1880 to 1980: A data base prepared as part of a coordinated research program on carbon fluxes in the tropics. *Chemosphere.*, 29(5): 1015–1062.
- Erika Romijn, Martin Herold, Lammert Kooistra, Daniel Murdiyarso, Louis Verchot. 2012. Assessing capacities of non-Annex I countries for national forest monitoring in the context of REDD+. *Environmental Science & Policy.*, 19(20): 33–48
- Jabir Hussain Syed , Riffat Naseem Malik , Di Liu , Yue Xu , Yan Wang , Jun Li, Gan Zhang, Kevin C. Jone .2013. Organochlorine pesticides in air and soil and estimated air – soil exchange in Punjab, Pakistan. *Science of Total Environment.*, 444: 491-497.

The following items were not discussed due to lack of time. So if each can submit his/ her views on them will be obliged.

- c) Historic trend and in emission and deforestation
 - d) Identify possible REDD+ activities that can be undertaken (Social Survey to identify the potential of REDD projects)
 - d) Data and information relevant to projection
 - Approaches, methods and models that are or can be used
 - Harvesting rates and wood products
 - Age class structure of plantation
2. Identify gaps in data, information and capacity or if that is not possible. Develop a work plan to assess the available data and information.
 3. Identify potential strategies for the development of the forest RELs/RIs that address the above issues or if that is not possible, develop a work pan to identify the strategies.
 4. Identify potential strategies to remedy the gaps or address the above issues or if that not possible, develop a work plan to do so.