



## FINAL NEWSLETTER!

### Activities:

- Training Workshop on Database/GIS with AIT, Thailand
- Regional Workshop on Remote Sensing with JAXA/RESTEC, Japan
- Development of Permanent Sample Plots in Solomon Islands
- Terminal Project Evaluation
- Other Activities in Countries

### Editor:

Masahiro Otsuka

### Contact:

Masahiro Otsuka  
Forestry Officer  
FAO Regional Office for Asia and the Pacific  
Maliwan Mansion, 39 Phra Athit Road, Bangkok  
10200, Thailand  
Tel. +66-2-697-4000 (ext.4130)  
Fax. +66-2-697-4445  
e-mail: [Masahiro.Otsuka@fao.org](mailto:Masahiro.Otsuka@fao.org)

### Copyright:

Strengthening Monitoring Assessment, and Reporting on Sustainable Forest Management in Asia (MAR-SFM Project), FAO, 2010

Website: <http://www.fao.org/forestry/34847/en>

## Activities:

### Training Workshop on Database/GIS with AIT, Thailand

- The Regional Workshop on Development of Effective Tools for Management of Forest Information for Sustainable Forest Management was held in collaboration with the Asian Institute of Technology (AIT) in Pathum Thani, Thailand, 14 – 17 September 2010. Eighteen participants attended the workshop from 16 countries, facilitated by FAO officers from RAP and HQs. The workshop aimed to provide participants with updated knowledge and skills on overall forest information systems. The workshop consisted of lectures and exercises in several sessions, covering topics of: overall forest information systems and results of recent project work on database management systems in Asian countries; open-source software for geospatial data management; GIS and remote sensing data with MODIS for near-real time forest fire monitoring; web map services, geo-portals and spatial data infrastructure; data storage, and processing and analysis for sample-based forest field surveys under the National Forest Monitoring and Assessment (NFMA). The staff of AIT presented and demonstrated training activities of Geoinformatics Center, including database development on disaster management and the MODIS Fire Information System.
- Participants learned and practiced database management systems using recommended tools during the workshop. They also made presentations on forest database management in countries, building on forest inventories and remote sensing. Countries still require harmonization of database formats for common use and sharing of forest-related data.
- The participants evaluated the workshop and suggested follow-up activities. Although the workshop provided overall knowledge on spatial and non-spatial forest information systems as introductory sessions, the participants requested follow-up training and pilot activities to build up national capacities for forest

information systems in thematic areas at various levels, based on countries' specific needs. They requested continuous and intensive training for technical sessions with detailed lectures and exercises. Many of the participants pointed out that countries still lacked financial and technical capacities. Neither have decision makers shown strong interest in strengthening forest information systems. They requested technical assistance from FAO and AIT in their programs to further support countries in developing national and regional forest information systems. Participants suggested various types of technical assistance such as mini-projects, case studies, regional training, distance learning, and free software distribution.

- Countries are expected to collaborate with each other to share experience and expertise on forest information management by developing a regional network of experts with countries' initiatives. At the same time, these countries will have to develop effective national mechanisms to better influence decision makers on development of national forest information systems. It would be useful to establish a list of e-mail addresses of national experts to facilitate distribution of software.



*Geoinformatics Center, AIT, Thailand (Credit: website:GIC)*

## Regional Workshop on Remote Sensing with JAXA/RESTEC, Japan

- The Regional Workshop on Updated Forest and Carbon Monitoring Technologies in Asia and the Pacific was jointly held by FAO and JAXA in collaboration with RESTEC in Tokyo/Tsukuba, 27-29 October 2010. The workshop was also sponsored by the Government of the Republic of Korea through the FAO Programme, "Strengthening Forest Resources Management and Enhancing its Contribution to Sustainable Development, Land Use and Livelihood (GCP/GLO/194/MUL)". Eighteen participants attended the workshop from 17 countries. The workshop aimed to provide participants with updated knowledge and skills on overall forest and carbon monitoring technologies, drawing on recent activities of FAO, JAXA, RESTEC, other organizations in Japan, and countries. The workshop consisted of lectures, discussions, and hands-on exercises on overall forest and carbon monitoring.



**Training at the RESTEC, Tokyo (Credit: RESTEC)**

- Participants received information on the recent status of activities in JAXA/RESTEC such as ALOS/AVNIR-2, PALSAR, PRISM, GOSAT, and GEO/FCT as well as other organizations in Japan. Next, the participants shared their presentations on forest monitoring activities with remote sensing/GIS and forest inventories in countries. These presentations were valuable for the participants. Additional clarifications especially on methodologies of biomass estimation using SAR from densities, types and forms of trees in combination with optical sensors would be needed. Techniques have to be further developed to improve data accuracy through fixed validation procedures.
- Participants discussed needs of high-resolution imagery for accurate forest and land cover assessment with smaller Minimum Mapping Units (MMUs) particularly in hardly accessible areas. Countries require small-scale forest assessments to estimate fragmentation of natural forests as well as development of small patches of woodlots. Airborne LiDAR would be useful for countries despite its high costs. Ground surveys or national forest inventories have

to be strengthened to ensure comprehensive forest and GHG inventories towards development of multi-resource inventories. They are essential for estimation of emission factors in the Measurement, Reporting, and Verification (MRV).

- Countries requested more technical support for assessment of forest degradation using UNFCCC/IPCC guidelines under the UN-REDD programme. Participants proposed for more flexibility in application of forest classification systems and monitoring technologies in countries in view of their diverse ecological conditions. Minimum-level harmonization of forest definitions and classifications would still be required at the international level, beyond which each country would be able to develop its own systems. Standard metadata procedures need to be fixed at the global level. In this regard, FAO is expected to elaborate and verify MRV and strengthen their initiatives to develop harmonized metadata systems in collaboration with other organizations, including JAXA and RESTEC to improve national capacities for forest assessment. It is also significant to ensure the continuous availability of satellite imagery with time-series data to be used by countries (e.g. Landsat data for the past decades).
- Participants acknowledged hands-on exercises for ALOS/AVNIR-2 and PALSAR. They expect follow-up collaboration with JAXA/RESTEC to further examine and apply Japan's monitoring technologies. Countries requested follow-up capacity building processes by international organizations (e.g. FAO, UN-REDD, Group on Earth Observation/GEO), and national organizations, including JAXA, RESTEC, national research institutes, universities, and other organizations in Japan and other countries.



**Lecture at the JAXA, Tsukuba (Credit: RESTEC)**

## Development of Permanent Sample Plots in Solomon Islands

- The Forestry Division (Planning Section) of the Ministry of Forests, Environment and Conservation initiated collaboration with the MAR project to set up permanent sample plots (PSPs) for forest inventories in pilot provinces. Technical designs of the PSPs were adopted from the guideline introduced during the regional training workshop in Fiji in January 2010, organized by the Secretariat of the Pacific Community (SPC), with a main plot dimension of 50m x 50m. It comprises of two sub-plots of 15 x 15 m and two circular plots of 3m radius. There are biomass plots of 30cm radius at four corners at the right angle of 5m.



*Laying out of PSP (Credit: J.W. Irokete)*

- A training workshop was held 30 August—3 September for 23 participants with fair regional representation throughout the country and with basic technical expertise from the provincial staff who have made significant contributions to long-term management of PSPs. The training workshop was geared mainly towards plot establishment and mensuration and other topics related to MAR and PSPs that would provide better understanding on the significance of improving PSPs from various technical aspects in the field.
- The development phase of the PSP establishment program has covered Malaita and Guadalcanal Provinces. The total number of PSPs for Malaita was 10 plots, out of which 2 PSPs were initially established during a training workshop and 8 PSPs were to be set up soon after. There should be about 10 EAPs (Easy-Access Plots) for Guadalcanal, while it was initially planned for 14.
- The MAR-PSP establishment program 27 September 2010 in Malaita Province. As indicated in the sampling design, all plots were established except for three in the southern region where confirmation of arrangements were delayed due to the absence of some leaders of land committees in respective land areas. Discussions were held with these stakeholders to confirm such plot

areas and enable earlier arrangements for secured plot establishment. Final decisions are expected to reach the establishment team soon.

- Introducing the pilot program for PSP establishment has faced some challenges to the preparation and development of pilot plots during the workshop. It must be understood that this trial and study on pilot PSP establishment is still a new approach which cannot yet be made perfect, it requires more time for improvement and better adoption.



*Forest measurement in the sub-plot in high land rain forest area (Credit: J.W. Irokete)*

- Confirmations reached the plot establishment team that those areas were finally permitted for a technical study on PSPs and will be completed before the last week of December. Considering substantial work load, about three PSP units were established on Guadalcanal in mid-November, and about 5 MAR-PSP units will be established later before the end of the year.



*Biomass Plot sample collection (Credit: J.W. Irokete)*

## Terminal Project Evaluation

The independent evaluation team conducted a terminal evaluation of the MAR project, 7–27 November 2010, with country visits to Cambodia, Indonesia, Philippines and Vietnam as well as to the FAO Headquarters and Regional Office for Asia and the Pacific. The team held meetings or interviews with related stakeholders and conducted questionnaire surveys with project focal points. The evaluation team was impressed with active collaboration by project countries, and they suggested a need for comprehensive technical analysis of outcomes and lessons gained through the MAR project for future implementation of similar activities by countries and international organizations. The overall findings of the terminal project evaluation will be available when the team submits the final report.



*The evaluation team organized a half day workshop/meeting in Kampong Thom Cantonment of Cambodia with forestry professionals of Cambodian Forest Administration (FA) involved in National and subnational levels MAR activities. (Credit: Prem Kandel)*

## Other Recent Activities in Countries

- The ASEAN Secretariat conducted follow-up training on online and offline formats for ASEAN Criteria and Indicators (C&I).
- The SPC facilitated development of technical guidelines for field inventories in large and small islands.
- The Forestry Administration implemented pilot testing of the national C&I format and database management with a training workshop in Cambodia.
- The Papua New Guinea Forest Authority supported updating of database systems for national forest inventory and is organizing a training workshop.
- The Forest Management Bureau initiated follow-up training on national C&I at pilot regional offices in the Philippines.

- The Forest Inventory and Planning Institute elaborated a technical guideline on data collection for effective reporting to forest-related reporting processes in Vietnam.
- The Department of Forest promoted updating of vegetation systems through remote sensing analysis and field check.
- MAR activities were continued in Bangladesh and Bhutan through development of national networks and technical review of forest inventory/assessment systems.

***The MAR-SFM Project will come to an end....Thank you very much for your active collaboration!***

- Since its inauguration in April 2006, the MAR-SFM project (GCP/INT/988/JPN) enhanced collaboration between FAO and various stakeholders at international, regional, and national levels especially in the Asia-Pacific region. We would sincerely like to thank the focal points and other officers for their active collaboration with the project until its end.
- We sincerely hope that countries will be able to enhance forest monitoring, assessment and reporting (MAR) activities with existing stakeholders even after the project ends on 31 December 2010. The project has a limited period, but MAR activities should continue to enhance forest sustainable forest management (SFM).
- We wish all of you good luck in future activities with MAR and SFM!

