JICA-PNGFA PROJECT
Capacity Development on Forest Monitoring for Addressing Climate Change

Japan International Cooperation Agency

Kanawi Pouru, Managing Director, PNG Forest Authority.

PAPUA New Guinea has the largest area of tropical rainforest in the Pacific region. The tropical rainforest plays important roles in many aspects, such as contribution to: The economy through timbers exports, rich biodiversity and mitigation of climate change. However, due to several underlaying cuases the forest area coverage decreased from 82% in 1972 to 71%in 2002. (According to a document by Phil Sharman and others published in 2008). Ongoing deforestation and forest degradation are serious problems. On the other hand, there still remain a lot of challenges ahead.

For example, the establishment of a robust and reliable national forest resource monitoring system is fundamental, but not yet completed.

The Project

National forest monitoring system that contributes to developing carbon accounting was well as to sustainable forest management is essential for Papua New Guinea. The project aims to assist in establishing the nationwide forest resource monitoring by utilizing satellite images and GIS, as well as capacity development of the staff. The project commenced in March 2011 and will terminate in March 2014. Japan International Cooperation Agency (JICA) has been assisting PNG Forest Authority (PNGFA) to implement the project.

Contents of the Project

Output 1: Forest Base Map Development by using Satellite Imagery

Before the project

National level Forest Base Map was created as at 1975 and has not been updated since minor updates in 1996.

Challenges

Rugged terrain and vast forest area. Very poor road connection and landowner issues (97% of the land in PNG is customary owned by clans).

Achievments

• Draft Forest Base Map 2012 was developed using optical satellite imagery (RapidEye), Rader satellite data (ALOS-PALSAR) and existing data.

• Significant improvements such as up-to-date information, segmentation size, forest/no-forest including water area, etc, are seen in newly developed Forest Base Map 2012.

Output 2: Forest Management Database System Development

Before the Project

GIS/Database system for forest management had not been updated since 1996.

Challenges

Existing spatial data were not integrated into the system.

Achievements

• Forest Management Database system was completely update to ArcGIS based new system. Database server with a huge database including satellite imagery etc, was newly introduced and developed.

Output 3: Forest Monitoring System Development including Carbon Aspect

Before the project

Existing forest resourced related data and system was not sufficient for carbon estimation and forest monitoring.

Challenges

Limited field data due to accessibility constraints to the forest. Limited experience to conduct biomass survey relevant to five carbon pools.

Achievements

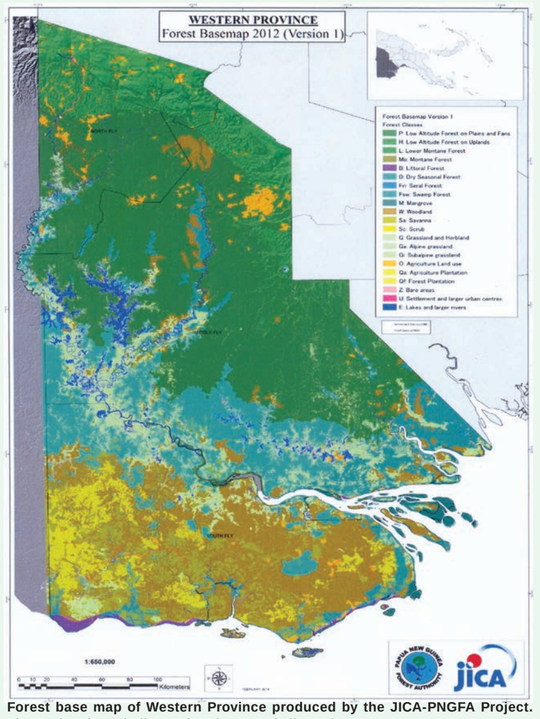
• Capacity development of biomass field survey was conducted. Especially biomass survey for below ground and dead wood is now for PNG officers.

• To enhance monitoring capacity of local area/field officers, training on GPS and GIS was conducted.

• Analysis of airborne dataset and filed data was conducted for forest carbon estimation.

Yoshiki Takahama, First Secretary, Embassy of Japan, Port Moresby

Dr Ruth Turia, JICA-PNGFA Project Director



Forest base map of Western Province produced by the JICA-PNGFA Project. The Project has similar updated maps of all provinces.

Yoshiki Takahama, First Secretary, Embassy of Japan

I AM happy to joint you all today for the final workshop for JICA-PNG Project regarding the Grant Aid Project for Forest Preservation Programme and JICA Project "Capacity Development on Forest Resource Monitoring for Addressing Climate Chang in Papua New Guinea.

In March 2010, the Government of Japan and the Government of Papua New Guinea agreed with a grant work seven hundred million Japaenes Yen, which is approximately twenty million kina to assist with the activity for "Project for Forest Preservation Programme."

In November 2010, JICA, Department of National Planning and Monitoring and PNG Forest Authority signed a Record of Discussion for implementing "Capacity Development on Forest Resource Monitoring for Addressing Climate change in Papua New Guinea."

The two projects started almost at the same time in 2012 aiming at contribution of forest base map and forest state monitoring system for addressing sustainable forest management and climnate change.

Today, I am delighted to meet the outputs of the two projects and wish to thank relevant government authorities and all the people who have one way one another worked hard to complete these two projects.

I acknowledge the Government of Papua New Guinea's effort to become a global partner in the discussions under the UN's Framework Convention on Climate Change (UNFCCC) and PNG is taking measures against the Climate Change issue through focusing on REDD+ activities which stands for "Reduce Emissions from Deforestation and Degradation of Forests."

Japan is implementing actions for Cool East composed of further technical innovation, global applications of Japan's low carbon technology and pledged assistance to addressing climate change. Japan aims to assist developing countries to reduce emission.

I hope that the result of these two projects could be utilized by relevant agencies in Papua New Guinea to implement sustainable forest management for addressing climate change.

I sincerely hope that today's event will be a significant step forward in further strengthening measures to address climate change and the existing friendly relationships between the two countries.

What the project outputs mean for Papua New Guinea

FOR the PNGFA and PNG FRI in particular, the development of the Forest Base Map will greatly benefit the organisation in that it will have a better knowledge and understanding of PNG's forest cover and where they are. This will greatly assist in better planning for forest management and development.

The forest industry will also reap a similar benefit but more so in that they can now plan accurately where and when to undertake their yearly logging activities.

The new information will benefit the resource owners by quantifying more accurately what is available on their land – from the work to be done by the two agencies above (PNGFA and Forest Industry). So when it comes to the actual development of the forest area, the resource owners can use that information to negotiate a fair and equitable return for the development of their forests.

Forest Management Database System Development is significant for PNGFA in that it will enable the PNGFA to store all (or most) its data in one place which will be updated regularly so to provide accurate information on forest resources to assist with its management.

How accessible is that information to those with an interest in the forestry sector?

The information is readily accessible at cost. Anyone with an interest would need to write to the Managing Director, indicating their specific interest and upon payment of a fee, the information can be released.

Forest Monitoring System Development including Carbon Stock

The PNGFA officers that were counterpart to the JICA-PNGFA Project are able to read any changes in forest cover as captured by satellite. They will then assess (if any) how much carbon has been released or stored depending on what changes has taken place. If the satellite imagery shows that the forest cover has been removed (lost), this means that some volume of carbon has been released. If the satellite imagery shows that the forest cover has increased (improved), this means that certain volume of carbon has been stored.

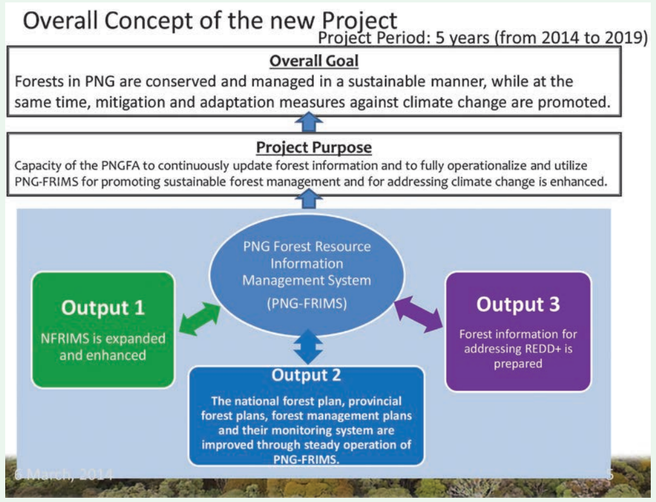
Furthermore, the PNGFA would be in a better position to advise the Government on issues relating to carbon emission or carbon stock from forest areas.

Summary

During the course of the development of the Forest Base Map 2012, it became very clear that PNG has to come up with a clear forest definition to meet both the climate change protocol and the forestry protocol. The Project assisted in defining the forest cover in PNG, whereby the PNGFA is confident to say that the total forest cover for PNG is 37,413, 924 hectares. This shows an increase from other previous reports by the PNGFA. Correspondingly, it may also mean an increase in timber volume and hence carbon stock.

The Project is not qualified to make any recommendation to the Government of PNG on the preservation and development of its forest resources. However, with the information that was made available under the Project, it is hoped that the PNG Government would use it to manage and develop its forest resources following the principles of Sustainable Forest Management.

A summary of the second project is given below:



It is hoped that the second project will improve the capacity of PNGFA officers throughout the provinces to capture reliable data that it would use to plan out the management and development of PNG's forest, especially through Output 1 and 2.

Participants at the final workshop of the Project at the Holiday Inn, Port Moresby.

PNGFA Managing Director Kanawi Pouru, second from left, posing with members of the JICA team before some of the forest base maps produced by the Project at the final workshop on March 5.

Project a benchmark for better things

PAPUA New Guinea Forest Authority (NFA) Managing Director Kanawi Pouru has described the JICA-PNGFA Project as a benchmark to build on and improve the management of forest resources.

He said the three year project was very successful because it had achieved certain outputs and provided the baseline and benchmark to build on.

Pouru said the project's noteworthy achievements were:

1. A successful completion of proper forest resource which is more accurate and reliable;

2. Forest resource database has been updated from the 1980s to date

3. A new dimension in monitoring change in forest cover or land use which is a big step.

The Managing Director was speaking at the opening of the final workshop of the project at the Holiday Inn in Port Moresby on March 5.

He commended the Japanese Government through its grant in aid and the JICA for funding and providing technical experts in a project in a key resource for Papua New Guinea.

Highlighting the importance of the resource, Pouru said as early as WW2, the forest sector has been responsible for building and construction work. In the years leading to and following Independence, the forest sector again contributed to a lot of development in the country.

The 1979 forest policy gave prominence to the resource and developments in the forest sector was responsible for the establishment of infrastructure, social services and income generation.

Forestry then was very important for national development but there was little concern for its sustainable development, Pouru pointed out. "It was used to pay for services."

However, 1991 saw a shift in policy which turned toward sustainable development of the resource. Rules were changed from unsustainable development to sustainability of the resource, Pouru added.

This was also when donors helped by way of technology and manpower capacity.

The JICA-PNGFA project is a the latest in which donor assistance was used for the sustainable management of the country's forest resource.

A new project will follow on and build on the outcomes of the first one.