Report on FY2013 International Seminar "REDD+ Implementation and Sustainable Forest Management"

The REDD Research and Development Center, the Forestry and Forest Products Research Institute

Outline of the Seminar

The international seminar, REDD+ Implementation and Sustainable Forest Management, was held at the U Thant International Conference Hall of United Nations University (UNU) on February 6 and 7, 2014, organized by the Forestry and Forest Products Research Institute (FFPRI) and Food and Agriculture Organization of the United Nations (FAO), and co-organized by UNU, Japan International Cooperation Agency (JICA), The International Tropical Timber Organization (ITTO), and The Institute for Global Environmental Strategies (IGES).

Under the theme "REDD+ Implementation and Sustainable Forest Management," the seminar aimed turning sustainable forest management (SFM) into means and opportunity for REDD+ by facilitating exchanges of experiences and tools for SFM implementation that can contribute to REDD+ activities, exploring the challenges associated with scaling up the REDD+ activities, and facilitating reflections about the role of SFM in the context of the REDD+ implementation. In the seminar, information on the latest SFM approaches and activities at various scales and by forest types was presented. Based on the presented information, various thought-provoking opinions were exchanged in the panel discussion.

Seminar: Day 1 (February 6)

Opening Session

On behalf of the organizers of this seminar, Dr. Kazuo Suzuki, President of FFPRI, made opening remarks, in which he expressed his appreciation to all the speakers and participants for their attendance. After a brief explanation of the seminar purpose, he encouraged participants to actively take part in the panel discussions.

Following the remarks from Dr. Suzuki, a message from Dr. Kazuhiko Takeuchi, Senior Vice-President of UNU, was read out. He stated in his message that UNU is working on REDD+ as one of its missions to solve global problems including those in developing countries. He also expressed his hope in the message that the seminar would serve an opportunity for facilitating cooperation among researchers all over the world and SFM would be realized by maximizing REDD+.

Mr. Akihito Miyahara, Deputy Director General of the Forestry Agency, Japan, made a speech on behalf of the guests. In his speech, he noted that the Japanese Forest and Forestry Basic Act aims to facilitate SFM. To this end, various efforts related to REDD+ are underway. He also expressed his hope that the seminar would serve an opportunity to share gained knowledge and experiences and strengthen cooperation among interested parties.

Mr. Eduardo Mansur, Director of the Forest Assessment, Management and Conservation Division, the Forestry Department at FAO stressed that deforestation and forest degradation accounts for a large percentage of global greenhouse gas (GHG) emissions caused by human activities, therefore, the challenge is how to avoid forest use that affects the function of forest carbon stock. Realizing SFM through the context of REDD+ implementation is particularly important.

Session 1

Sharing information on international negotiations

Update on the international negotiations on REDD-plus under the UNFCCC - key outcomes from Warsaw

- **Ms. Jenny Wong**

  (UNFCCC Secretariat)

Ms. Wong outlined the key points of the Warsaw Agreement at COP 19 and showed the negotiation schedule for 2015.

She started her presentation from explaining about the Bali Action Plan and the Cancun Agreements that are important outcomes since 2007. The clarification of five REDD+ activities and the decision on technical issues were particularly important outcomes in the Cancun Agreement. She also referred to the "Warsaw Framework for REDD-plus." REDD+ provides funds based on results, therefore, REDD+ implementing countries are required to provide information on MRV and safeguards. Next, she talked about the Green Climate Fund (GCF) and the requests from COP to the Standing Committee on Finance (SCF) of COP concerning financing. She mentioned that the UNFCCC Secretariat will establish an information hub on the UNFCCC web platform to increase information transparency. Information submission is a prerequisite for receiving result-based payments.

Following this, Ms. Wong outlined the key points regarding technical issues, such as modalities for national forest monitoring systems (NFMS), the timing and frequency of the submission of information on safeguards, technical assessments of proposed reference levels, modalities for MRV, and decisions on addressing the drivers of deforestation and forest degradation.

Ms. Wong concluded her talk by announcing schedules and agendas of SBSTA, SBI, and the experts' meeting for 2014. She called for views regarding methodological guidance for non-market-based approaches, non-carbon benefits resulting from REDD+ implementation, experiences in developing safeguard information system, and the types of information.

Session 2

SFM in the context of REDD+ implementation

SFM and REDD+: Two discourses - one ultimate goal

- **Dr. Patrick Durst**

  (FAO Regional Office for Asia and the Pacific)

Dr. Durst made a presentation about the importance of strengthening cooperation between REDD+ and SFM, both of which are working on toward the common goal. The summary of his presentation is as follows:

Principles for SFM have been proposed at various international conferences and the Seventh Session of the United Nations Forum on Forests, where various definitions of SFM have been proposed based on it. The basic idea of SFM is to "enhance economic, social, and environmental values of all forests for the benefit of present and future generations." The issues of climate change cannot be solved without realizing SFM. Furthermore, REDD+ and SFM need to be implemented based on democratic forest governance and to lead to sustainable livelihoods for local people. To this end, the cooperation with local people is indispensable. In addition, SFM will help facilitate the implementation of REDD+ as enhancing forest carbon stock and preventing forest degradation. REDD+ is considered to contribute to SFM, because it could increase funding flows, facilitate further participation of broader actors, and make more information about forests and forestry available. Dr. Durst concluded his presentation by emphasizing the need of integrating and further facilitating REDD+

and SFM since most of the challenges that is drawing international attention such as climate change issues, biodiversity conservation, establishment of sustainable local communities, and enhancement of multiple functions of forests, are connected to REDD+ and SFM.

Sustainable forest management in the context of REDD+

- **Dr. Ian Thompson**

  (Natural Resources Canada , Canadian Forest Service / the Global Forest Expert Panels, the International Union of Forest Research Organizations (IUFRO-GFEP)

Dr. Thompson gave a talk about the environmental conservation effects for SFM in REDD+ from a scientist's standpoint. The following is the summary of his talk:

Difference between sustainably managed forests and fastwood plantation forests is that logging and harvesting in sustainably managed forests can be done while maintaining high carbon storage levels, on the contrary, the carbon storage levels in the fastwood plantation forests could be increased in the short term, but almost all stored carbon is released when they are harvested. In order to realize SFM, some measures are under way: proposals for standards and guidelines for quantifying SFM, implementation of various forest certification processes, and technical and scientific supports by multiple international organizations. However, SFM is not realized in most of tropical forests due to poor governance of SFM, lack of economic attractiveness, and absence of appropriate knowledge and capacity. In such situation, forest conservation through REDD+ is thought to be highly promising, but some challenges such as unsustainable forest use, lack of governance, issues related to carbon-based management are still remain unsolved.

Dr. Thompson expounded that the provision of ecosystem services and the biodiversity are closely related and that a certain level of biodiversity is essential to maintain the resilience of forests. Resilience is extremely important factor for ecosystems. SFM aims to develop and utilize forests to the extent that does not cause irreversible changes by securing the resilience of forests. Therefore, he stressed that dividing landscapes into zones in accordance with development and utilization purposes, securing biodiversity, and reducing physical disturbances are of paramount importance. He also indicated that SFM is essential for REDD+ to bring various benefits including the carbon storage. For this purpose, scientific efforts are needed to understand how to maximize ecosystem service, where the limit of it, and how ecosystems services are affected, and what is the causes of the impacts.

Dramas of the CPRs: logical development to take lessons for REDD+ implementation

- **Dr. Makoto Inoue**

  (Graduate School of Agricultural and Life Sciences, the University of Tokyo)

Dr. Inoue talked about the lessons learned from discussions on common-pool resources (CPRs), which are useful for REDD+ implementation. In his talk, Dr. Inoue pointed out that the citizens all over the world are concerned about forests looking at the standpoint of science such as biodiversity conservation and CO2 emissions, and try to conserve forests. On the other hand, local peoples deeply depend on forests for their livelihoods. It is a stark contrast between them. Dr. Inoue showed strategies for local peoples to sustainably utilize resources: (1) to refuse intervention from outside and maintain their autonomy, (2) to accept NGOs and consultants to adopt their measures, and (3) to adopt parts of both strategies and work in cooperation with various stakeholders. He supported the idea

of (3) to avoid unnecessary safeguard issues, where local people can make decisions on their own with help from NGOs when implementing REDD+. He emphasized that the smooth implementation of REDD+ will be ensured when people stop seeing local people as a culprit of damaging forests and recognize them as main players in the sustainable resource management and forest conservation. Dr. Inoue also emphasized that local people choose land use based on diversified needs in their livelihood. Therefore, when developing REDD+, it is desirable to provide economic benefits to prevent social anxiety and to develop safety net that will guarantee land use for local people.

Session 2: Q/A session

Questions and answers to three speakers in Session 2 were carried out. Dr. Mitsuo Matsumoto, Director of the REDD Research and Development Center, FFPRI, served as a moderator. The content of Q/A session was as follows:

Question: Implementing sustainable forest management seems to be difficult because developing countries seek short-term profit. What do you thing about this?

Answer: Forest certification can become one of the incentives for local people. There is a good example that PES (payment for ecosystem services) was used for an oil palm plantation. SFM can be done in plantations. What REDD+ should learn from past experiences are not to make negotiations complicated, make a system so that local people who use forests can change the actions easily, and to build partnership with local people taking the background of social forestry into consideration.

Question: While the importance of local people's participation is frequently talked, it is not reflected in the system.

Answer: It is important for those who work on projects at the national and global level to think about specific measures at the field level and to build relationships with local people.

Session 3

Multipurpose of SFM and REDD+ activities: Importance of data/information collection to support them

National forest monitoring systems in the context of REDD+, importance of data collection

- **Dr. Maria Jose Sanz-Sanchez**

  (UN-REDD Programme, the Forest Assessment, Management and Conservation Division, the FAO Forestry Department)

Dr. Sanz-Sanchez talked about the importance of national forest monitoring systems (NFMS) in the context of REDD+ and FAO's support for the establishment of NFMS.

First, she explained that while the purpose of forest monitoring is changing from timber supply to biodiversity, to SFM, and to current purpose, REDD+, and is expected to change further, forest monitoring is always important in order to make decisions based on high quality information. She explained that forest monitoring is particularly important to provide data to fulfill international reporting system and to formulate management plans for making the best use of forest resources.

She then explained that FAO conducts monitoring at different scales: at the forest stands level, at the subnational level, at the national level, and at the global level. She pointed out that it is important for forest information at national level in particular, to take various aspects of forests including forest area, biological diversity, forest health and vitality, social and economic functions into consideration.

Dr. Sanz-Sanchez also mentioned that FAO supports the establishment and operation of

NFMS towards the realization of REDD+. The main pillars of its support include the collection of land coverage data through a remote sensing system and the calculation of emission factors based on the results of the national forest inventory (NFI). The challenge is to continue monitoring conducted especially in developing countries. In these circumstances, she said that FAO facilitates the implementation of NFMS by dividing the process into three phases: (1) enhancing capacities, (2) developing the Satellite Land Monitoring System (SLMS) and monitoring demonstration activities, and (3) collecting activity data (data on forest coverage) using the satellite system, calculating emission factors based on the results of NFI, and implementing MRV integrated with the monitoring of REDD+ implementation. These three phases are implemented keeping consistency of the three phases of REDD+ (readiness, demonstrations and actions). However, the progress varies with each country; therefore, guidelines should be developed and utilized taking account of each country's circumstances and phases.

She also mentioned that FAO's role in REDD+ readiness phase is to help countries develop, implement, and operationalize their NFMS, and assist conceptualizing and implementing REDD+ activities and developing policies and measures. For this, FAO focuses on a step-wise approach for continuous improvement, the development of the system to build on existing capacities, data, and systems, the use of open-source and data available to anyone, and capacity building through training on site.

For the sake of the establishment of reliable forest carbon monitoring system

- **Dr. Yasumasa Hirata**

  (The Chief of the Global Warming Response Promotion Office, FFPRI)

Dr. Hirata's talk included problems concerning the development of monitoring systems and technical solutions. His talk was as follows:

REDD+ activities are a mechanism to provide economic incentive based on the amount of GHG emissions reduction or the amount of GHG absorbed. Thus, developing a MRV system that provides reliability of activities for funding is needed. For this purpose, the UNFCCC framework put importance on developing robust and transparent national forest monitoring systems using a combination of remote sensing and ground-based inventory. However, various problems became clear: the gap between implementations at project-level and at national-level, and difference in quality of accumulated data and in measuring methods in developing countries. Therefore, it is important for all developing countries to establish national-level monitoring systems in Phase 1.

He also introduced technologies and methods for collecting accurate data through remote sensing and field surveys by giving examples in Malaysia, Cambodia and Paraguay, where the REDD Research and Development Center worked together. He also introduced technical methods how to remove seasonal variability and the influence of clouds from the data gained through remote sensing. He emphasized the importance of verifying the results of the forest-type classification obtained using remote sensing and understanding of the amount of carbon stock. He also pointed out that there still remain many problems in collecting reliable field data such as land tenure and illegal logging. Dr. Hirata concluded his talk by introducing "REDD-plus Cookbook" which is a compilation of experience and knowledge accumulated by the REDD Research and Development Center.

sCreen - Fast track estimation of carbon benefits from forestry activities

- **Dr. Carmenza Robledo**

  (Ecoexistence - Robledo Abad

Althaus)

Dr. Robledo talked about a simple estimation method for carbon benefits using sCreen. sCreen is a simulation program that can predict behavior of carbon caused by various forest management activities (such as restoration, conservation, SFM, afforestation, and agroforestry) at the landscape level from five objectives: carbon sequestration, carbon enhancement, GHG emissions from deforestation, GHG emissions from degradation, and the production of timber and wood products. The behavior of carbon changes depends on the combination of activities. Therefore, the simulation can predict to certain extent how and what activities should be allocated to supply timber products while receiving carbon benefits before initiating activities. The feature of this method is that it can assess potential carbon benefits obtained from the production of timber and wood products as well as from afforestation and forest conservation activities. On the other hand, the data created by sCreen is not highly accurate, because the estimations are based on existing data, default values, and historical trends to prioritize low cost and handiness. However, it enables local communities to select desirable forest practices including land use conversion or the continuous utilization of timber and wood products based on the simulation. The important role of the program is to facilitate dialogue among stakeholders related to forests and to encourage decision makers to make substantive decisions. It is difficult to determine user-friendliness of sCreen at this stage and need to improve by viewing feedbacks from the user.

Session 3: Q/A session

Questions and answers to three speakers in Session 3 were carried out. Mr. Hiroki Miyazono of JICA served as a moderator. Comments from the speakers are as follows:

It is important to put importance on cost effectiveness and being consist over time in obtaining data (whether the same criteria and indicators were applied on the data without bias), but not merely aim to minimize unreliability. Carbon monitoring by local people might increase unreliability and could increase training costs, therefore, it would be ideal to develop a system in which their traditional (local) knowledge would supplement the carbon monitoring data. Some of the countries are considering how to use monitoring results for SFM and what kinds of additional information should be collected for that purpose. Mr. Miyazono concluded the session by introducing NFMS for REDD+ implementation developed in Papua New Guinea with the support of JICA that could contribute to SFM as an important information source for conducting selective logging activities. How to link SFM to REDD+ is on the process of trial and error and further practice and experience is needed.

Session 4:

Experiences from SFM while promoting REDD+

REDD+ and SFM; Status, Opportunities and Challenges in India

- **Prof. N. H. Ravindranath**

  (Centre for Sustainable Technologies, the Indian Institute of Science)

Prof. Ravindranath gave a talk on forest policies and programs in India. In India, deforestation has progressed due to the high population density in rural areas and the high demand for fuelwood and timber. In order to address this, the Indian government enacted the Forest Conservation Act in 1980 to prevent the inappropriate conversion of forest land to non-forest purposes. The Indian government introduced the Joint Forest Management (JFM) in 1990 as a decentralized forest management program. As the result of the promotion of forest conservation and the natural regeneration of degraded forests through the active

participation of local governments and local residents, the deforestation rate was reduced at the national level. This experience is a valuable lesson for achieving REDD+ including safeguards, and SFM. He said that India would like to work for the implementation of REDD+ and to establish a decentralized, community-based MRV system and to develop human resources, while maintaining consistency with existing forest policies. In particular, he said, India need to reorient forest governance and policies to work on the "plus" of REDD+ such as the enhancement of carbon stocks.

Linking REDD+ with SFM: The REDD+ Readiness Process in Zambia

- **Mr. Deuteronomy Kasaro**

  (REDD+ Coordination Unit, the Ministry of Lands, Natural Resources and Environmental Protection, the Republic of Zambia)

Mr. Kasaro's talk included the process towards implementing REDD+, SFM, and roles of forests. In Zambia, fuelwood is an important energy source as only 22% of total population can access to electric power (hydroelectric power). As the result, agriculture expansion and charcoal production are main drivers of deforestation. Towards the implementation of REDD+, the UN-REDD program is underway in conjunction with ILUA II (Integrated Land Use Assessment Project) that is a technical support by FAO. These programs identify the drivers of deforestation, create land cover maps, and develop a decentralized and provincial-level monitoring system by using GIS. These activities will be open to public via website to facilitate understanding of deforestation trends at the regional level. These activities are conducted as part of national policy, but involvement of broader stakeholders is indispensable. Capacity development of stakeholders to avoid excessive expectations toward REDD+ and to devolve authority to the implementing entities is important. In conclusion, he stressed that what learned from the past experiences in REDD+ is not a panacea nor new initiative, but an integrated approach, and it is important to prioritize REDD+ in the national process, and to develop ownership to raise awareness of stakeholders.

Session 4: Q/A session

Questions and answers to two speakers in Session 4 were carried out. Dr. Henry Scheyvens from IGES served as a moderator. In the session, Prof. Ravindranath explained the factors that lead to successful policy implementation in India: robust enforcement of forest conservation, community-based forest management under the government's land use plan and effective governance in mediating conflicts over land.

He also explained that deforestation as REDD+ is not a major problem in India, therefore, it is difficult to obtain credits through the prevention of deforestation. Using existing JFM that involves local communities, India will promote enhancement of carbon stocks by rehabilitating highly degraded forests.

Mr. Kasaro said showing the case in Zambia that consensus among stakeholders including local residents is essential for achieving SFM including REDD+, and that the key issue is to what extent responsible actions can be taken on site and at the local level. He mentioned that he would like to work on the development of a decentralized framework for forest management including the maintenance of regional offices.

Dr. Scheyvens concluded the Session 4 by expressing his view that REDD+ and SFM are evolving concepts. A key to success is to understand the causes of deforestation through landscape approach and to develop policies, laws, and regulations to address the causes.

Summary of Day 1

- **Dr. Mitsuo Matsumoto**

  (The Director of the REDD Research and Development Center, FFPRI)

Dr. Matsumoto summarized the points of discussions of Day 1. He reviewed that the discussions in past seminars focused on plans, strategies, and concepts for the future, but in this seminar, presentations were made based on reality and experience.

Day 2: February 7

Opening Session

- **Dr. Mitsuo Matsumoto**

  (The Director of the REDD Research and Development Center, FFPRI)

Dr. Matsumoto reviewed the discussions of Day 1, and explained the purpose of the three sessions and the panel discussion of Day 2. Then, Dr. Matsumoto explained about the panel discussion, in which one speaker from each session of Day 1 and Day 2 is invited as panelists to discuss with the participants. He also encouraged all the participants to actively contribute to the discussions.

Session 1:

Lessons from REDD+ readiness and demonstration project implementations and linkages with SFM

Future Perspective of REDD+ Implementation and the National Forest Policy in Indonesia

- **Dr. Yetti Rusli**

  (Senior Advisor, the Ministry of Forestry, the Republic of Indonesia)

Dr. Rusli introduced the dynamic activities related to REDD+ in Indonesia. Indonesia promotes biomass energy which is a renewable (carbon neutral) and could replace fossil fuels. Technologies to supply energy materials made from biomass, which is produced in a short rotation (1-2 years) coppice system, are being established with the cooperation of local residents. These materials are transformed into wood pellets and exported to Europe and the US. However, judging from the discussions on climate change in Indonesia, understanding of the economic value of the biomass energy produced by forests and the roles and possibilities of REDD+ have not fully recognized. In this situation, the challenge in the future is how to utilize REDD+ for green economy and how to realize SFM. She expressed her expectations that the JCM (Joint Crediting Mechanism) signed between Indonesia and Japan would provide a good opportunity to transfer Japanese experience and technology to Indonesia, as Japan has created 80% of its domestic credits in the forest sector by utilizing wood pellets and facilitating thinning using J-VER[1].

Session 1: Panel Discussion

- **Dr. Jose Antonio Puppim De Oliveira**

  (The United Nations University - Institute of Advanced Studies (UNU-IAS))

- **Dr. Makino Yamanoshita**

  (Senior Policy Researcher at IGES)

- **Dr. Richard Rastall**

  (UNU-IAS)

In the wake of a talk from Dr. Rusli, the panel discussion with three young experts was conducted. Dr. Ma Hwan-Ok from ITTO served as a moderator. Dr. Yamanoshita pointed out of the importance

[1] J-VER (Offset Credit) Scheme: J-VER is the name for carbon credits which were certified by the Ministry of the Environment, in order to trade the credits (which were obtained through reducing emissions, increasing forest carbon sinks, etc. in Japan) in the carbon offset market. The J-VER Scheme is also the name of the system. The system was established in FY2008 by the Ministry of the Environment. In FY2013, the system was integrated into the domestic credit system controlled by the Ministry of Economy, Trade and Industry.

of community-level monitoring. She said monitoring conducted from a broader perspective of carbon and local community is needed. In addition, synergic effects can be created by involving local community into the government policy planning.

Dr. Rastall pointed out that trade-off between forest conservation and development has not been resolved yet and this remains as a challenge of REDD+. He insisted that we should work toward bigger goal than REDD+ and improve land use management at the landscape level. Following the comments from Dr. Rastall, Dr. Puppim pointed out the need of multilateral, time-wise, and regional cooperation and linkage. He also stressed that it is important to create an initiative to link REDD+ to larger-scale economic and social problems and to link the local to the global. Specifically, market mechanism, land ownership, the issue of accountability and safeguard, and the realization of governance with multiple stakeholders are given as examples. Various methods and markets will be needed, as SFM and acquisition of economic benefits is difficult to go hand in hand in developing countries. Thus, expectations for outcomes of JCM are high.

Session 1: Q/A session

Participants from the floor presented activities in their countries. Mr. Ebonine O. Raymond from the Federal Ministry of Environment, Nigeria, talked about the activities jointly conducted with the Department of Climate Change. Nigeria joined the UN-REDD Programme in 2009 and has been conducting various activities such as establishing a national bureau in charge of REDD+, establishing and managing offices, training personnel, and developing a national plan, but challenge still remains in securing budget. Application process for receiving fund from the World Bank's FCPF (Forest Carbon Partnership Facility) is under way.

Mr. Heng Hong from the Ministry of Environment, Cambodia, reported that they have facilitated the participation of residents and regional stakeholders, and have strengthened support measures. However, they are facing insufficient cooperation among the relevant entities, poor communication about management plan among the relevant entities, and difficulty introducing market mechanism due to limited knowledge of local people, limited resources, and a lack of quality reliability.

Mr. Haji Abdul Khalim Bin Abu Samah from the Pahang State Forestry Department in Malaysia said Malaysia has two types of activities for SFM: one is conducted by the federal government and another is conducted by the state governments. Training programs, SFM, how to use two certification systems are conducted by the federal government, and the REDD+ projects is carried out by the state government.

Being invited a comment from Dr. Ma, Dr. Rusli called for the participants to keep going and do our best. She also stated to the experts from the United Nations, international organizations, and universities that it is important to show clear results in order to move forward.

Session 2:

Moving from local experiences to national implementation. SFM at different scales. Carbon accounting and registering

Development of REDD+ Guidelines for JCM

- **Dr. Mitsuo Matsumoto**

  (The Director of the REDD Research and Development Center, FFPRI)

Dr. Matsumoto reported about the progress of guidelines for implementing REDD+ within the JCM framework which the REDD Research and Development Center of FFPRI has been working on the development. The

general concept of the guidelines is to make REDD+ activities operational, therefore, they stipulate the use of default values (Tier 1) and permissible levels of accuracy. The guidelines are updated to integrate comments and opinions from FS (feasibility study) proponents and VCS. Received feedbacks included how to deal with leakage and the "plus" of REDD+, and how to scaling-up, how to address safeguards and regarding guidelines preparation process. Responding to these indications, Dr. Matsumoto explained that leakage could be addressed by buffering, and proposed three approaches for setting reference levels when scaling up from project levels to subnational levels.

VCS Jurisdictional and Nested REDD+: Advancements and Opportunities

- **Ms. Naomi Swickard**

  (Verified Carbon Standard)

Ms. Swickard reported on the Jurisdictional and Nested REDD+ (JNR) Standard which is developed by VCS. VCS is NGO headquartered in Washington, DC. Its standards are used in more than 1,000 REDD+ projects around the world. The VCS's share of the carbon markets in the agricultural and forest sector is 71%. In many cases, the VCS Standard is used in combination with safeguard certification standards such as CCBS. VCS has conducted project-level activities. In recent years, 60% of REDD projects started discussions how to balance their activities and subnational/national activities. On the other hand, VCS receives requests for guidance when developing a carbon accounting system at the jurisdictional level from multiple jurisdictional governments, and also receives inquiries for scaling up project-level to national/subnational activities from those involved in projects, such as how to integrate various activities conducted at national, subnational, and project level. In light of the situation, VCS is developing JNR as guidelines used in developing a carbon accounting framework for REDD+ activities at subnational/ national-level. JNR has three scenarios that can be used in accordance with different approaches and parties to be credited. In order for jurisdictional governments to be able to access multiple financial sources (public funds and voluntary markets), VCS is considering allowing them to use JNR in combination with external safeguard standards developed by the World Bank and NGOs, and allowing them to add requirements at the request of jurisdictional governments. Currently, multiple pilot projects are ongoing. Acre, Brazil is planning to issue jurisdictional-level REDD+ credits by the end of 2014. In Chile, rather than conducting jurisdictional-level programs, zoning is conducted at the subnational level by taking different types of forest management and the costs related to forest management, and ecoregions into consideration.

Ms. Swickard explained that the different standards set by multiple financial sources such as the World Bank, the State of California, and JCM could limit the option of financial sources available to those who implement projects and subnational programs. As for Japan's JCM, collaboration between VCS and JCM would enable JCM to work with a larger number of programs and to ensure consistency with various frameworks. She also introduced options how to balance between the standards stipulated in JNR and JCM Guidelines.

Scaling Up: Challenges of Large-Scale REDD+

- **Ms. Donna Lee**

  (Climate Change Consultant)

Ms. Lee spoke about the issues associated with large-scale REDD+ program. The challenges associated with scaling up the REDD + project include not only a problem of size of subject area, but also the issue of inconsistencies of multiple projects in the same country, diverse direct and indirect drivers that cause deforestation and forest

degradation, and conflict of interest. The REDD+ activities started as a project due to complexity of accountability to the entities that provide funds and risk management, but REDD+ is gradually scaling up to large-scale program. A nested REDD+ approach that combines these two efforts has been gaining momentum. However, there still have many challenges such as political issues that affect the nested REDD+ approach. Substantial benefits can be obtained by maintaining constant communication between the project level and the national level and strengthening vertically structured cooperation. Experiences gained from these efforts can be applied to the national strategy. However, there still remains various problems, such as sustainability of activities, fragmentation in demand of REDD + credit (due to the emergence of multiple approaches), uncertainty of REDD + funds in the future, concerns about the transparency of the profit-sharing rules. Mr. Lee said that the flow to large-scale REDD+ project is forming, however, experiences for its implementation is still insufficient. She concluded that long transition period would be needed as it is necessary to clarify the cause-and-effect relationship of the results of emission reduction activities at project level and that of program level, and to make adjustments among multiple stakeholders.

Session 2: Q/A session

Questions and answers to three speakers in Session 2 were conducted. Dr. Maria Jose Sanz-Sanchez from FAO served as a moderator. The questions focused on the differences between JCM and VCS, the compatibility between JCM, and VCS.

The discussion included whether it is appropriate to equally treat the credits created in the forest sector (REDD+) which have high levels of uncertainty and could be produced in large amounts, and the credits created in other sectors in the market. Another discussion was about compatibility between credits obtained through VCS and JCM. Dr. Matsumoto said that in order to ensure the credibility of credits obtained through JCM and to make JCM operational, further consideration of feedbacks from VCS and third-party certification organizations is needed, taking account of the profitability of private companies that implement JCM.

Dr. Sanz-Sanchez concluded her talk by stressing that when scaling up project-level activities to national-level programs, various challenges that are different from ones for project activities will be raised, such as government involvement when taking measures. We need to think how to realize our ultimate goal by collecting knowledge obtained from past demonstration project, keeping the final goal of REDD+ in mind.

Session 3:

Thinking from broader perspective: Landscape approach

REDD+ and Sustainable Landscapes: Policy and Practice

- **Ms. Donna Lee**

  (Climate Change Consultant)

Ms. Lee talked about ideas and challenges of landscape approaches in the contest of REDD+. A landscape approach is an integrated approach that sees land use as a whole, including forests, farm lands, and wetlands, but not targets a single land use. An integrated landscape management has not unified definition, and it is jointly managed by stakeholders in a different land use sector and at different level. The key is developing its process. She further mentioned that while the importance of an integrated approach is recognized, in order to obtain international consensus, implementation at national level that can add flexibility to a fund management would be the best option due to complicating factors such as systems and agreement in each

issues, and conflicting benefits related to them. She also introduced Bio Carbon Fund that started as new efforts to seek solutions at the landscape level with the help of the initiative of the World Bank. In the case of Ethiopia, approach to land use including promotion of agricultural productivity, improvement of cooking stoves, and diffusion of biogas energy, as well as participatory forest management and livestock management is under way. The Ministry of the Environment coordinates and implements multiple policies at national level.

REDD+ in landscapes: drivers of deforestation, institutions and jurisdictions

- **Dr. Louis V. Verchot**

  (Director, Forests & Environment Research, the Center for International Forestry Research (CIFOR))

Dr. Verchot spoke about the results of the interdisciplinary analysis of REDD+ conducted over the past five years from the standpoint of transformational change in governance, economy, and institutions. He said that the key to the success of REDD+ is to have legislation and law enforcement environments in place. For this purpose, it needs to understand that agriculture is the primary driver of deforestation. In order to incorporate the connection between the forest sector and other sectors into the systems and policies of REDD+, Dr. Verchot showed a simulation of deforestation over the period of 25 years, from 2000 to 2025, in Mexico, as a deforestation model using the landscape approach.

He also explained that the baseline and project scenario can be compared by incorporating a CO2 fixation model and other factors into the landscape analysis. He said that it is important to make proposals to policy makers, keeping the improvement of residents' livelihoods and climate change measures in mind, while using these tools.

Dr. Verchot further said that when implementing REDD+ at the jurisdictional level, it is important to know about multiple levels of governance that has complicating structures of administrative organizations, purposes, their responsibilities and their authority.

Session 3: Q/A session

Questions and answers to two speakers in Session 3 were held. Mr. Satoshi Akahori from the Forestry Agency served as a moderator. Discussions concerning how to adopt the landscape approach in complicating local situations.

Ms. Lee explained that as presented in his earlier speech, deforestation occurs not only in the forest and forestry sector, but in the agricultural sector. Importantly, agriculture is affected by droughts, the influx of immigrants caused by family planning, and lack of birth control among local residents. Deforestation is a very complicating issue caused by the dynamics of human activities. In order to prevent deforestation, understanding local residents' needs is the first step. For this purpose, cooperation and coordination among ministries and agencies are of great importance.

Concerning this subject, Dr. Verchot stressed the importance of national policies, including the development of appropriate land use plans and the maintenance of laws and governance, as well as the improvement of local peoples' livelihoods. Now, the private sector aims to adopt a landscape approach for corporate social responsibility (CSR) and future business opportunities. Dr. Verchot said that the advantage of the landscape approach is that land use, land use change, and the amounts of emissions and absorption in the forestry sector and other sectors including the agricultural sector can be determined, and measures against them can be taken.

Session 4: Panel Discussion

The role of SFM in REDD+ implementation: Enabling environments, opportunities, and synergies.

- **Dr. Ian Thompson**

  Dr. Carmenza Robledo

  Mr. Deuteronomy Kasaro

  Dr. Ir. Yusurum Jagau (the Dean of the Faculty of Agriculture, the University of Palangka Raya, Indonesia)

  Ms. Naomi Swickard

  Dr. Louis V. Verchot, and

  Dr. Yasumasa Hirata

The panel discussion was joined by seven panelists. Mr. Mansur from FAO served as a moderator. Responding to the question, "What changes did REDD+ bring about in forest management?" Mr. Kasaro explained that the Forestry Department has already recognized the need for considering problems outside the forest sector when obtaining consensus of stakeholders and making decisions on policies. Dr. Jagau said that in Indonesia, new forest management units and community forest management plans were introduced in line with the National REDD+ Strategy.

Responding to the question, "How to avoid conflicts with residents who depend on forests in preparing for REDD+ and SFM?" Dr. Robledo replied that it is important to make policies through dialogue with stakeholders, while taking into consideration that the structure may create winners and losers.

To the question, "What efforts and actions should be prioritized to fill in the gap between countries in the development of national forest information/monitoring system?" Dr. Hirata replied that when moving up the preparation stage to the implementation stage of REDD+, it needs to ensure that the minimum level of verifiable accuracy is attained and to make NFMS as simple as possible to make it feasible.

Dr. Thompson replied to the question about how to keep NFMS at low cost. NFMS is useful to monitor the amounts of emissions and absorptions and biodiversity, but in order to ensure accuracy at low cost, utilizing the latest satellite technologies is needed. A participant from the floor commented that developed countries' reports on the amounts of emissions and absorption for LULUCF (Land Use, Land-Use Change and Forestry) provide useful information concerning the development of NFMS.

To the question regarding whether carbon finance (CF) can be a silver bullet for SFM, Dr. Verchot replied that CF was useful for revising forest management policies in developing countries. He also said that a huge amount of money is needed just to cover the opportunity cost for preventing deforestation and forest degradation, and the pledged public funds are insufficient. Therefore, measures to reduce investment risk are needed in order to facilitate investment by the private sector.

To the question regarding how to consider project-based REDD+ when implementing full-scale national-level REDD+, Ms. Swickard answered that REDD+ projects have been implemented on a trial basis by the private sector such as VCS. These projects should be coordinated at the national level in the future.

A question was made from the panelist, "What kind of change did this seminar bring for the way of thinking about REDD+?" Participants from the floor said that they renewed awareness that measures to improve local residents' livelihoods alone are insufficient to achieve REDD+, and that it is necessary to develop national land use plans, laws, regulations, as well as ensuring appropriate governance for enforcing them. The importance of landscape approach that includes agriculture, which is a main driver of deforestation, and the concept of SFM including wood production and biodiversity

were renewed.

Closing Session

- **Dr. Mitsuo Matsumoto**

  (The Director of the REDD Research and Development Center, FFPRI)

To summarize two-day seminar, Dr. Matsumoto introduced the draft conclusion of the seminar. It will include important discussion points at each session as “key messages” and include 10 key messages:

- SFM and REDD+ have strong synergies, science plays an important role, particularly ecosystems,

- local people should be considered as partners in implementing SFM and REDD+,

- international support for REDD+ must be considered to achieve SFM goals,

- the role of government is important, and

- the landscape approach needs to be introduced.

The participants agreed with these key messages. The conclusion will be further elaborated before it was posted on the website of the FFPRI and will be disseminated at various events.

Dr. Matsumoto concluded the seminar expressing appreciation to the organizations that supported the seminar, speakers, moderators, and all the participants. He also expressed his hope that participants will utilize the outcomes of the two-day seminar to enhance REDD+.
