Minutes of the International Workshop on "Roles of Research Institute on Forest Plantation and Landscape Restoration in Asia" under Stream 1: Restoring Forests and Landscapes

Room 305, ConvensiA Songdo, 19 June 2019

With the support from the Asia Pacific Association of Forestry Research Institutions (APAFRI) and National Institute of Forest Science (NIFOS)

The Side Event started at 11:00 a.m., which was attended by about 50 participants of various nationalities, particularly from Cambodia, Lao PDR, Myanmar, Vietnam, Uzbekistan, Indonesia, India, Philippines, among others. The moderators of the program were **Dr. Hadi Pasaribu** (Chairman, Forest for Life Indonesia) in the morning session and **Dr. Ho Sang Kang** (Executive Director, Asia Forest Institute) in the afternoon session.

The program started with welcome remarks by Dr. Kan Gee Seng (Executive Secretary, APAFRI and Dr. Kyongha Kim, Director General, Department of Forest Policy and Economics, on behalf of the president of NIFOS, respectively.

Dr. Gan Kee Seng thanked the organizers of the event and introduced APAFRI as a program established by FAO about 20 years ago. He mentioned the challenges APAFRI overcame for years and the important roles it contributes in the region up to present. He acknowledged the National Institute of Forest Science (former name was Korea Forest Research Institute), which has been a major sponsor of APAFRI since 2007, for example in implementing IUFRO activities in the region. APAFRI is honored to be entrusted with the use of the fund for various activities in different countries in the region. APAFRI contributes in dealing cross-boundary and multi-national forestry activities and is proud to be the regional representative in forestry research. Dr. Gan Kee Seng believes that APAFRI will continue to be the driving force for forest research in the region.

Dr. Kim Kyongha served as representative of the President of NIFOS (Dr. Chun Bom Kwon). In his message, he acknowledged the important organizations and personalities present in the session and congratulated the organizers for a meaningful event. He mentioned that with the causes of forest destruction since the industrialization period, adding more to the problem of

climate change, restoration of degraded lands nowadays becomes important. Efforts by the international organizations (e.g. CBD) and the different initiatives, particularly of the Republic of Korea (e.g. Changwon Initiative by the UNCCD) are crucial. He emphasized that indeed, forest research is important and that should be implemented according to the needs of the region.

The first presentor was **Dr. Abdushukur Khamzaev** (Director General, Research Institute of Forestry and Deputy Chairman, State Forestry Committee in Uzbekistan). The title of his presentation was "Activities Carried Out in the Field of Forestry Development, Protection and Multiplication of Forests in Uzbekistan." Background on Uzbekistan and its forest was delivered by him showing the forest density dynamics from 1961-2017 with an increasing trend. Organizational structure of the State Committee of the country was shown in his presentation as well. Forest restoration work by zones and the main types of trees in their different zones were presented. Interesting to note is the condition of the dried bottom of the Aral Sea in their country whereby saxaul and other desert plants for restoration were introduced. Apart from this, the human resource of the Forest Research Institute, including their academic degrees were presented.

The second presentor was **Ms. Deiva Oswin Stanley** (Consultant, India) with the title of presentation "Role of Research Institutes on Forest Restoration, especially in DPRK and Asian countries." Agroforestry was the highlight of her presentation, particularly in DPRK. The role of FAO was emphasized mentioning that they implement the project with the Ministry of Land and Environmental Protection (MoLEP) in collaboration with the Ministry of Agriculture (MoA). The beneficiaries of the projects were mentioned in undertaking their activities. The assessment of soil made after the introduction of agroforestry models as well as the development of land use map after studying the aspects of the forest were also included. She mentioned that FAO supported erosion control and nurseries in different areas to supply seedlings needed. In her presentation, she also mentioned that agroforestry demonstration models were already established in DPRK. Food security, hence, was addressed by planting major crops and vegetables while restoration was addressed by planting about 139,750 tree species in 85.5 ha. Overall increase for major crops in the agroforestry lands was observed while in terms of sustainability, per capita share of major crop has also increased. Gender equity was also addressed by their projects. Supports needed were enumerated as follows: expansion of agroforest project area, replication of agroforestry models, involvement of

several agencies, basic support in procurement of seeds, nursery, transplanting, more suitable crops, awareness campaign and technology transfer, among others.

The third presentor, **Dr. Thaung Naing Oo** (Director of Forest Research Institute, Myanmar), made his presentation titled "Programme Proposal on National Level Ecosystem Restoration and Reforestation in Myanmar." As a background, he reiterated that ecosystem restoration was emphasized in the UN Decade on Ecosystem Restoration 2021-2030. The objectives as well as the country profile were presented, showing the total forest cover of 42.92%. The establishment of permanent forest, the policies existing in their country, planning framework (short, medium long-term), e.g. 30-year national forestry plan, were included in his presentation. The forest cover change in Myanmar was 1.8%. Causes of deforestation, including indirect causes, were enumerated. More importantly, the role of forests in achieving NDC in Myanmar (involving forestry rector and other renewables) was cited. Myanmar reforestation and rehabilitation programme from 1856 up to present was shared citing the importance of community forestry in supporting ecosystem restoration. He further mentioned that it is expected to reforest/rehabilitate 2.27 million acres by 2030. Some of the expected outputs were enumerated like the improvement in plantation policy, state-owned plantations, private plantations, community forests, creation of jobs, capacity building to local people, among others. Habitat restoration programme (2019-2029) was also presented mentioning its 44 PAs and re-establishing natural habitats programme. Challenges in previous reforestation and ongoing programme were mentioned as well as the research priorities restoration and recommendations for reforestation/landscape restoration.

The fourth presentor was **Dr. Vo Dai Hai** (President, Vietnamese Academy of Forest Science, Vietnam). His presentation was about the "Program on Ecosystem Restoration and Reforestation: Vietnam's Proposal**."** Past forest reforestation programs (Program 327 from 1992-1997, World for Food Program, etc.) were shared by him, including the forest restoration achievements (forest cover increased from 28% in 1990 to 42% in 2018). Ongoing restoration programs (target program on sustainable forestry development 2016-2020, restoration of mangrove & sandy coastal forests for climate change mitigation and adaptation, etc.) were presented as well. Lessons learned from past forest restoration programs and challenges were highlighted. Lastly, forest restoration proposal (promoting forest rehabilitation to reverse land degradation and improve ecosystem service in Northwest region, Vietnam) was presented, including its justification, goals, objectives, project area, and activities per objective.

After the four presentations, a 10-minute Question and Answer was facilitated by Dr. Hadi Pasaribu. The *first question* was raised by Dr. Syam Viswanath (Director, Kerala Forest Research Institute, India). He asked the possibility of including bamboo as one of the plant species for soil conservation in agroforestry areas. Ms. Stanley responded that the suggestion was noted and will be implemented if possible, if it is conducive basically in the lower areas. Dr. Bir Mandal of FAO added that planting bamboo should be considered depending on the altitude, as it is only appropriate in lower altitude but not on high altitudes. Also, he said that FAO brings technology from the outside if they found it suitable for the country. The *second question* was from Dr. Hyun Park of NIFOS addressed to Ms. Stanley. His question was about the role of Forest Research Institute in DPRK. Ms. Stanley answered that collaborating and implementing almost all of the activities were done by the Forest Research Institute in DPRK, including choosing of the seeds, sites, etc. She added that in every step, nursery development was done by the institute. FAO only make technical assistance while the rest is done by the institution. In relation to this, Dr. Thaung Naing Oo shared Myanmar's success experience on taungya system, which is the planting of agroforestry crops in the mountain ecosystem for possible adoption. It was acknowledged by Ms. Stanley. The third question was from Dr. Sokh Heng addressed to Dr. Vo Dai Hai. He asked about the problem of land tenure in Vietnam, on how they were able to contact local state and people and how they were able to get good genetic resources of the seedlings. Dr. Vo Dai Hai replied that Vietnam's northwest is being managed by the community and in their proposal, they used land area of the community to set up agroforestry models. This is so because the people knows more the agricultural process from the top to the foot of the hills. Beside community forest lands, individual household forests were also included. He added that Vietnam usually buy seedlings ensuring the good quality from certain company.

The morning session finished at exactly 12:30 p.m. for lunch break and resumed at exactly 1:30 p.m.

The *first presentation* in the afternoon was delivered by **Dr. Chanhsamone Phongoudome** (Deputy Director General, National Agriculture and Forestry Research Institute, Lao PDR). The title of his presentation was "Program/Project Proposal on Ecosystem Restoration and Reforestation at National Lao PDR." In his presentation, he mentioned the FAO forest

resource assessment in their country citing the forest cover and the water contribution of the Mekong River Basin. Changes in percentage area and drivers of deforestation in the country (agricultural conservation, dams, infrastructure, logging, soil erosion, etc.) were also presented.

He mentioned that Laos has the highest percentage of forest area in Asia. According to him, the target national forest cover in 2020 is 16.6 M ha with three categories of forest (production, conservation, protection). The national program from 1976 up to 2030 (National Socio-economic Development Plan) was presented focusing on poverty and climate change. Progress on ecosystem restoration and reforestation at national level was presented as well enumerating the bigger plantations which include rubber followed by eucalyptus, acacia, teak and agar wood. In terms of restoration efforts, natural regeneration, enrichment planting, agroforestry, mixed plantation, and direct sowing of seeds are being practiced in the country. Projects from 1990 to 2020 and future actions like changing ODA to joint investment (PPP), improving human resources development, among others were mentioned. He then gave updates on Forest Development Plan 2020, such as restoration/rehabilitation using different approaches, management of current forest (9.8 m ha), national, regional & international collaboration, and others.

The *second presentation* was made by **Dr. Sokh Heng** (Director, Institute of Forest and Wildlife Research and Development, Cambodia). His presentation focused on "Cambodia Forest Genetic Resource Conservation Project Proposal." Dr. Sokh Heng gave background on the forest cover of Cambodia, including the causes of the loss of their forest, the need for the good quality of seeds/seedlings for restoration, and objectives (to support the conservation of genetic resources of Cambodia). Their target beneficiaries are the government agencies, private institutions, NGO, and local communities. Expected outputs include establishment of *in-situ/ex-situ* plantation with key activities. Challenges involved in the implementation of project were discussed and the proposed budget for desired activities was presented.

The last presentor was **Dr. Seol Ara** (Research Scientist, National Institute of Forest Science, Korea). Her presentation was about "Valuation of Forest for Public Benefits and Payment for Forest Ecosystem Services in Korea." As a background, she mentioned how Korea was able to successfully restore the country's forest and how it became the model of reforestation in the

world. She shared how NIFOS do studies on valuing Korea's forest. Forest public benefits being assessed by NIFOS include forest water retention, forest disaster prevention, life environment preservation, forest recreation, nature environment preservation. Benefits were evaluated quantitatively amounting to 126 B USD. She mentioned appropriate methods for evaluating different forest functions, such as replacement cost method, travel cost method, avoided cost method and hedonic price method. Benefit analysis study on restoration of DPRK was also shared using scenario analysis. Payment for ecosystems services (provisioning, regulating, cultural, supporting) and the efforts and practical implementations on PES in Korea were discussed as well. She mentioned that Korea is doing lots of efforts such as development of objective and quantitative tools, various researches & implementations in terms of PES. However, there are some challenges which include the updating of the version of forest public benefits; realization of PES, and contributions to Asia-Pacific forestry.

After all the presentations, discussion followed. Prior to Question and Answer portion, Dr. Ho Sang Kang thanked all the presentors especially from Uzbekisthan. He mentioned that there are lots of opportunities to share information and research among ASEAN member countries and other countries in the Asia-Pacific Region. Some of the avenues for future collaboration, especially in Mekong countries are as follows: AFoCO, ASEAN-ROK Cooperative Fund, Korea Forest Service, NIFOS, and APAFRI. These collaborations all lead to addressing the issues on forest landscape restoration.

Mr. Vong Sok (Assistant Director and Head of the Environment Division, ASEAN Secretariat) appreciated the announcement made by Dr. Kang. He mentioned the appropriate actions in order to proceed with the submission of proposals involving the national focal points for ASOEN.

Dr. Thaung Naing Oo thanked the speakers and his question was addressed to Dr. Ara Seol regarding the importance of PES and its system in Korea. Dr. Ara Seol reiterated that PES in Korea is on its way and it is not fully developed, however carbon market via carbon credit is being done already. Dr. Vo Dai Hai added that in the case of Vietnam they applied PES in soil erosion, water regulation, ecotourism and now carbon sequestration. He mentioned that they have already pilot activity for PES. Dr. Thaung Naing Oo also asked question to Dr. Sokh Heng regarding the importance of biotechnology and the kind of species or ecologically important

species for restoration. Dr. Sokh Heng replied that good seedlings are very important. In the case of Cambodia, they are at the beginning process and have just established small laboratory. They are doing research for appropriate media for fruit trees and orchids. They hope to cover in the future the timber species and rare species or endangered species. Dr. Seok Woo Lee of NIFOS, shared their experience in doing tissue culture on pine and oak species in Korea. He mentioned that they already transferred the technology to Cambodia, Indonesia, and Vietnam. For PES, NIFOS hopes to develop appropriate system for action and in order to achieve it, public awareness is necessary. Dr. Seok Woo Lee asked the percentage of protection forest in Cambodia. Dr. Chivin Leng (Ministry of Environment in Cambodia) replied that there is a total of 8.5 m ha in Cambodia and out of it is 7.5 m ha for protection forest (which is 41%) and 1 m ha for production forest. The ministry focused on zoning of protection areas.

Lastly, Dr. Abdushukur Khamzaev from Uzbekistan gave his impression on the side event, including the experiences and knowledge gained by them from different country's situation. The learnings and information from the side event's presentations can be shared and are very useful in their country.

After the Question and Answer, Dr. Kang made wrap up of the session and this was followed by a group photo. The program finished at 2: 55 p.m.