

Third Forestry College Deans Meeting in the Asia-Pacific Region
Evolving Methods of Curriculum Delivery in Post-secondary Forest Education

Summary Report

4 November 2013 Rotorua, New Zealand

On 4 November 2013, the Third Forestry College Deans Meeting in the Asia-Pacific Region was held in Rotorua Energy Events Center, New Zealand, gathering 33 participants, including 14 deans, chancellors and professors from 13 regional economies and professors as well as representatives from international organizations. As the third gathering of deans under the Forestry College Deans' Meeting Mechanism in the Asia-Pacific Region (the Mechanism), this meeting was organized by APFNet, co-organized by FAO, Beijing Forestry University of China, University of British Columbia of Canada, and supported by University Putra Malaysia, Melbourne University of Australia and University of Philippines Los Banos, and it was one of the pre-session events of the 25th session of the Asia-Pacific Forestry Commission of FAO.

The deans and professors delivered presentations and interacted among themselves on the meeting theme “*evolving methods of curriculum delivery in post-secondary forest education*”, and discussed activities to be carried out for 2014 under the Mechanism and priorities for the future. The presentations, discussions on the emerging challenges facing advanced forestry education as well as the activities under the Mechanism have been summarized below.

I. Opening

Mr. Qu Guilin, Executive Director of APFNet, briefly addressed the opening. He pointed out the progress achieved under the Mechanism, highlighted the importance of forestry education in promoting sustainable forest management, and mentioned great opportunities lying ahead, which also requires the team of the Mechanism steering committee to improve its capacity and deepen understanding towards each other.

Ms. Mette Loche Wilkie, Deputy Director, Forest Assessment, Management and Conservation Division of FAO, delivered opening remarks. She first conveyed wishes from Mr. Eduardo Rojas-Briales, Assistant Director General of FAO, and described forestry education as the fundamental pillar in the pursuit of sustainable forest management and introduced FAO's commitment to forestry education in changing social, economic and technological situation. She put forward a personal request to the participants to be quixotic in putting forward bold ideas that could further promote the forestry education in the Asia-Pacific region to a new high.

Professor Luo Youqing, Vice President of Beijing Forestry University and chair of the Mechanism's steering committee, briefly reviewed the development of the Mechanism and the previous meetings. He introduced the activities carried out under the Mechanism, in particular, the project of *Innovative Sustainable Forest Management Education in the Asia-Pacific Region*.

II. New challenges facing advanced forestry education

Dr. John Innes, dean of the Faculty of Forestry, University of British Columbia of Canada (UBC), introduced the new challenges in promoting advanced forestry education from the example of UBC. Professor Luo Youqing, Vice President of Beijing Forestry University of China (BFU) addressed this topic from BFU's perspective. Instead of declining enrollments in forestry colleges, lack of resources, *etc.* talked about in previous meetings, in face of the changing social, economic and technological landscape, challenges facing advanced forestry education are also evolving, with new ones including increasing enrollments, new mechanisms of learning delivery, new expectations amongst students and constraints associated with the accreditation of some programs.

1. Increasing enrollments

Both UBC and BFU have seen increasing enrollment of forestry students in the recent two years, which doubled the size of some classes, brought pressure on field training and may have excluded some of those in pursuit of forestry as a career but with lesser academic credentials.

2. Massive open online courses

An enormous challenge that many professors elaborated is the increasing popularity of massive open online courses (MOOCs) since the second deans' meeting in 2011 in Beijing. Mr. Chris Crowley, senior manager from Center for Teaching, Learning and Technology of UBC, specifically explained the recent development of MOOCs (*e.g.* Coursera, Udacity, edX), which have advantages such as being open access, free to the learners, and providing a myriad of courses to choose from. This has affected traditional classroom teaching and has the potential to replace both first-year courses and some advanced level courses.

3. New mechanisms of learning delivery

Many universities have adopted learning management system to better deliver the courses to students. Courses can be put online (internally), with assignments, marks and interaction better listed. This kind of system, however, is applied mainly in universities in developed economies. Meanwhile, due to the emergence of flipped classroom, the classroom has now been transformed into a place for discussion, instead of the traditional transfer of knowledge from teachers to students. Students now ask for a more flexible way of learning, which presents more requirements for universities and faculties.

Dr. Chris Weston, professor from University of Melbourne of Australia, shared the experiences of Melbourne in the shift of curriculum design and delivery. Research-oriented training has been developed for the last year of Bachelor's degree and short and new postgraduate program, *e.g.* forest systems management, has been designed to attract students across disciplines. The teaching syllabus has been adjusted to fully make use of online resources and encourage more self-study. The quality of faculty resources and facilities has also been guaranteed to create the best possible student experience.

4. Communication and information revolution

Social media has become the predominant way that students communicate and poses new demands for faculties and schools. Students tend to rely more on **online resources**, like

Wikipedia and YouTube, but sometimes the copyright and information accuracy become complex issues. **Academic misconduct** has been rising due to the easier access to online resources and varies between cultures; this is a problem that the whole academic community needs to address.

5. Constraints of accreditation

Another challenge is that the requirements for knowledge of skills that are emphasized by accreditation processes may hinder some aspects of the development of well-rounded students. For example, purely focusing on skills may reduce a student's ability to be innovative, and to be able to critically evaluate existing methods.

Many challenges are the same for forestry colleges across the Asia-Pacific region and also for education as a whole. The willingness to learn from each other and cooperate will help to meet those challenges and appropriate governance and financial models are necessary to make the Mechanism sustainable.

III. Innovative sustainable forest management education: case studies

Professors from different universities introduced forestry education status in their economies and universities, especially curriculum development. Forestry education now has mainly been shaped by the weak status of the traditional forestry industry, emerging global issues related to forestry development, and the changing socioeconomic landscape in many economies. Many universities are undergoing a paradigm shift in curriculum development and also seeking collaborative programs between universities.

China: Prof Liu Yong from BFU shared his understanding of modern forestry education, which should treat forest functions as a whole with economic, ecological and social functions interacting with each other. He suggested systems thinking should be integrated into major forestry courses.

Myanmar: Prof San Win, Pro-Rector from Myanmar University of Forestry, introduced the evolving process of forestry education in Myanmar since 1898 and the challenges they face due to the socioeconomic changes and climate change in recent years. The availability of quality faculties and adequate financial supports are the issues to be deal with to ensure the good forestry education in Myanmar.

Mongolia: Dr. Baatarbileg Nachin, Head of Department of Forest Sciences, National University of Mongolia, introduced the problems facing forestry education in Mongolia, which is relatively disadvantaged. Education reform is to be launched in 2014 to cut 230 majors in universities to 75, which also include forestry related majors to shift the focus from operation to both theories and skill oriented. He called for support from outside to develop the Mongolian forestry education so as to provide Mongolian forestry development with suitable talents.

Thailand: Dr. Wanchai Arunpraparut, Dean of Faculty of Forestry, Kasetsart University of Thailand, introduced the cooperation between his university with the Southwest Forestry University of China since 1992, in staff exchange, student exchange and research collaboration, which has been so far successful.

Bangladesh: Prof. M. Al Amin from Institute of Forestry and Environmental Sciences of Chittagong University of Bangladesh, introduced the shift of forestry education paradigm since the 1990s, which now integrates more the people forestry and social forestry. This change requires incorporating new knowledge base in Bangladesh's professional forestry curriculum, especially facing many forestry-related hot topics like global climate change, biodiversity conservation, village forestry, conflict management, invasive species management, *etc.*

Malaysia: Dr. Faridah Hanum, Dean of the Faculty of Forestry, University of Putra Malaysia (UPM), introduced UPM's experience in curriculum design and delivery. She emphasized the design and delivery of forestry curriculum should consult different stakeholders, integrate and synchronize with the changing external environment to ensure socioeconomic development and environmental integrity. Forestry programs must be multidisciplinary and contribute to personal character building of students.

Chinese Taipei: Dr. Hsia-Wei Yuan, professor of School of Forestry and Resource Conservation, National Taiwan University, Chinese Taipei (NTU), introduced the current status of forestry education in Chinese Taipei, against the backdrop of shrinking traditional forestry industry in last decades and the limited job market ensuing the change. NTU's responses to the challenges are to continue the research orientation, extend forestry to public welfare business, reduce core courses, encourage international studies and integrate learning from various disciplines.

New Zealand: Professor Bruce Manley, Head of School of Forestry, University of Canterbury of New Zealand, introduced the advantages of New Zealand's high productivity of its plantation forests, which is the basis for developing a joint Master's program between Indonesia and New Zealand.

Mr. Barney Chan from eSFM Tropics and Prof Bigsby from Lincoln University of New Zealand introduced a postgraduate program developed together by Sarawak Timber Association and Lincoln University for Sarawak Timber Association to provide an applied background for sustainable forest management and certification for managers in tropical forest industry.

IV. Launch of the APFNet project

The project of *Innovative Sustainable Forest Management Education in the Asia-Pacific Region* under the Mechanism was developed based on the survey of regional forestry colleges since the second Deans' meeting in 2011. It aims to develop six classic online forestry courses to be incorporated into the curriculum of regional forestry colleges to promote the innovation of the forestry education in the region with total fund of USD 770,000. The targeted audience of those courses is the senior undergraduate and first year postgraduate students.

The project agreement was signed by Mr. Qu Guilin, Executive Director of APFNet and Prof Luo Youqing, chair of the coordination office of the Mechanism, and followed by their brief remarks. Mr. Qu expressed his expectation for the project implementation team and thanked the professors present for their in-kind contribution to the project. He emphasized the ability of understanding actually underpins forestry education as well as the successful

implementation of the project. Prof Luo Youqing resonated what Mr. Qu said and stated the determination to implement the project to its best effects.

Responsible professors then introduced the background, overall goal, specific objectives implementation timeframe and management mechanism, online course and platforms and quality assessment by technical partner.

It was agreed that the project management board would be composed of 8 forestry deans from the five participating colleges (BFU, UBC, UPLB, UM, UPM). Prof Liu Yong from BFU and Dr. Wang Guangyu from UBC will be the project coordinators. A specific work plan of the project has also been agreed upon and outcomes were expected in November 2015.

V. Future work plan of the Mechanism

Prof Luo, chair of the coordination office of the Mechanism, proposed the work plan for the Mechanism in 2014 and some thoughts for consideration in the long run. Activities proposed and discussed include:

- implementation of the project just launched;
- possible proposal of another online course development project entitled *Sustainable Tropical Forest Management Education in the Asia-Pacific Region*;
- other priorities for future course development:
 - new geo-technical applications in SFM,
 - advanced techniques in SFM,
 - globalization and marketing of wood products,
 - landscape-scale management
- collaborative summer program among three or four universities to enable students to learn more about different forest management status of different parts by staying one week in one university;
- Cooperation with other international organizations like International Forestry Student Association (IFSA), and European Forest Institute (EFI), *etc.*;
- Expand the influence of the Mechanism to reach out to universities in South Asia economies.

It was proposed that the next Deans' meeting be held in the UPLB in the Philippines or organized as a side event of the next session of the APFC in Malaysia.

Annex 1: Agenda of the meeting

2: List of participants