



Food and Agriculture
Organization of the
United Nations

Regional Expert Consultation Workshop on Forest Education in Asia and the Pacific

Summary report

4-5 February 2021

Creation of a Global Forest Education Platform and Launch of a Joint Initiative
under the Aegis of the Collaborative Partnership on Forests



ITTO
INTERNATIONAL TROPICAL
TIMBER ORGANIZATION

Regional Expert Consultation Workshop on Forest Education in Asia and the Pacific

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RECOFTC

At RECOFTC, we believe in a future where people live equitably and sustainably in and beside healthy, resilient forests. We take a long-term, landscape-based and inclusive approach to supporting local communities to secure their land and resource rights, stop deforestation, find alternative livelihoods and foster gender equity. We are the only non-profit organization of our kind in Asia and the Pacific. We have more than 30 years of experience working with people and forests, and have built trusting relationships with partners at all levels. Our influence and partnerships extend from multilateral institutions to governments, private sector and local communities. Our innovations, knowledge and initiatives enable countries to foster good forest governance, mitigate and adapt to climate change, and achieve the Sustainable Development Goals of the United Nations 2030 Agenda.

ITTO

The International Tropical Timber Organization (ITTO) is an intergovernmental organization promoting the sustainable management and conservation of tropical forests and the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests. ITTO:

- Develops internationally agreed policy guidelines and norms to encourage sustainable forest management (SFM) and sustainable tropical timber industries and trade.
- Assists tropical member countries to adapt such guidelines and norms to local circumstances and to implement them in the field through projects and other activities.
- Collects, analyses and disseminates data on the production and trade of tropical timber.
- Promotes sustainable tropical timber supply chains.
- Helps develop capacity in tropical forestry.

ITTO is an action and field-oriented organization with more than 30 years of experience. It has funded and assisted in the implementation of more than 1000 projects and other activities addressing the many aspects of SFM, such as forest restoration; wood-use efficiency; the competitiveness of wood products; market intelligence and transparency in the tropical timber trade and tropical timber supply chains; forest law enforcement and governance; illegal logging; biodiversity conservation; climate-change mitigation and adaptation; the contributions of non-timber forest products and environmental services; and the livelihoods of forest-dependent communities.

ITTO's membership represents about 90% of the global tropical timber trade and more than 80% of the world's tropical forests.

TABLE OF CONTENTS

Preface	1
Session agenda	2
Summary of session discussions	4
Sharing and validation of survey findings	4
Discussions on priority thematic areas	7
Summary of key opportunities	7
Summary of key challenges	8
Summary of priority actions	9
Summary of key desired impacts	10
Concluding remarks	12
Communique or summary of session	12
Annex 1: Participant list	14

PREFACE

The Regional Expert Consultation Workshop on Forest Education in Asia and the Pacific was co-hosted by RECOFTC and the International Tropical Timber Organization (ITTO) on the mornings of 4-5 February 2021. The workshop was organised online using the Zoom platform with a total of 62 participants from 15 countries (Australia, Cambodia, China, India, Iran (Islamic Republic of), Italy, Japan, Lao People's Democratic Republic, Myanmar, Nepal, Philippines, Sri Lanka, Thailand and Viet Nam). Participants included representatives from government, civil society, universities, research and training institutions, international organizations and donor agencies.

The overall aim of the workshop was to validate findings from a survey for forest education undertaken in the Asia and Pacific region. The workshop and survey were part of the Global Forest Education Project jointly conducted by the Food and Agriculture Organization of the United Nations (FAO, ITTO, and International Union of Forest Research Organizations (IUFRO), with funding from the German Federal Ministry of Food and Agriculture (BMEL).

The workshop sought to:

1. Validate the findings of the survey and the conclusions of the report regarding the status and needs in forest education in Asia and the Pacific region.
2. Prioritize gaps and needs to be addressed in Asia and the Pacific and develop a list of priority actions to strengthen forest education.
3. Review and prioritize actions and approaches to overcoming challenges and enhancing forest education in the region.
4. Expand exposure and involvement on discussion of forest education to contribute to growing momentum on the topic.

Discussions focused on the following five key topics, identified as priority thematic areas from survey findings:

1. Integration of traditional knowledge into formal forestry education
2. Achievement of gender and social inclusion through forestry education
3. Integration of forestry and other land uses through forestry education
4. Developing forest-based enterprises through forestry education
5. Improving forest governance through forestry education

The workshop achieved the stated aims. Overall, there was strong consensus among the participants that the report accurately represented the realities (including successes and challenges) in Asia and the Pacific, and that the report conclusions and recommendations were timely and relevant. Discussions over the two days generated valuable additional information used to strengthen the report analysis and recommendations for priority actions to strengthen forest education in Asia and the Pacific.

SESSION AGENDA

The session agenda for the regional consultation is presented in the table below. The focus of the first day was on sharing and validating the key findings from the survey. On the second day, discussion centered around five key topics, identified from survey findings as priority thematic areas for enhancing forest education. Results and feedback from the discussions on both days have been used to strengthen the report analysis and recommendations for priority actions to strengthen forest education in Asia and the Pacific.

4 February 9 a.m. - 12.30 p.m.		
Session 1 9.00 - 9.30 a.m.	<p>Introduction and opening remarks</p> <ul style="list-style-type: none"> ● Eva Mueller, Director General for Forests, Sustainability and Renewable Resources of Germany's Federal Ministry of Food and Agriculture (BMEL) ● Andrew Taber, Team Leader for Social Forestry, Food and Agriculture Organization of the United Nations and the Lead Technical Officer for the Global Forest Education Project ● Chandra Silori, Deputy Executive Director, RECOFTC ● Mika Rekola, Chair, Technical Advisory Committee, Global Forest Education Project 	<p>Session objective:</p> <ul style="list-style-type: none"> ● Setting the stage
Session 2 9.30 - 10.30 a.m.	Regional report: Forest education assessment in Asia and the Pacific	<p>Session objective:</p> <ul style="list-style-type: none"> ● Share survey findings to participants
10.30 - 10.45 a.m.	Participants group photo and break	
Session 3 10.45 - 11.45 a.m.	Five breakout groups to discuss three categories: Employers, Teachers, and Students	<p>Session objective:</p> <ul style="list-style-type: none"> ● Validate survey findings and trends ● Identify successes and challenges in forestry education ● Validate key conclusion and recommendations from survey findings for formal and information forestry education

Session 4 11.45 a.m. - 12.15 p.m	Groups report in plenary	Session objective: <ul style="list-style-type: none"> ● Share key highlighted discussion points from group breakout in plenary
Session 5 12.15 p.m. - 12.30 p.m.	Recap and wrap up	

5 February 9 a.m. - 12 p.m.		
Session 6 9.00 - 10.30 a.m.	Five breakout groups to discuss five thematic areas: <ol style="list-style-type: none"> 1. Integration of traditional knowledge into formal forestry education 2. Achievement of gender and social inclusion through forestry education 3. Integration of forestry and other land uses through forestry education 4. Developing forest-based enterprises through forestry education 5. Improving forest governance through forestry education 	Session objective: <ul style="list-style-type: none"> ● Identify opportunities, impacts, constraints and challenges in forest education based on thematic areas ● Identify key action and recommendations for enhancing forest education
10.30 - 10.45 a.m.	Break	
Session 7 10.45 - 11.45 a.m.	Groups report in plenary Recommendations for enhancing forest education in Asia and the Pacific	Session objective: <ul style="list-style-type: none"> ● Share key highlighted discussion points from group breakout in plenary
Session 8 11.45 a.m. - 12.00 p.m.	Summary and closing <ul style="list-style-type: none"> ● Next steps ● Closing remarks 	

SUMMARY OF SESSION DISCUSSIONS

Sharing and validation of survey findings

Discussions on the first day of the regional consultation focused on sharing and validating survey findings. Participants were divided into breakout groups based on their occupation (employers, teachers, and students), with discussion framed around the following three guiding questions:

1. Do the results expressed in the report accurately represent the realities of forest education in Asia and the Pacific?
2. Does the report adequately capture the successes and challenges of forest education in Asia and the Pacific?
3. Do you agree with the conclusions and recommendations of the report?

Overall, there was strong consensus among the participants that the report accurately represented the realities (including successes and challenges) in Asia and the Pacific, and that the report conclusions and recommendations were timely and relevant.

Several prominent themes emerged from discussions during the breakout and plenary sessions, aligning with key survey findings. Key points and examples shared by participants are summarised for each of these below.

1. In many countries, there is a gap between the forest education curricula and the job market needs.
 - One employer from a large international forestry company noted that employers find that it is difficult to get qualified foresters and often have to recruit internationally or provide additional training relevant to the jobs.
 - In Viet Nam, a representative from an international non-profit noted that two major lacking skills among job candidates are working knowledge of English language and practical experiences.
 - In the Philippines, the professional regulation commission requires newly graduated forestry students to pass a forestry work examination.
 - In Myanmar, University of Forestry graduates just worked with the Forestry Department in the past. Nowadays, many forestry graduates work with NGOs/INGOs. This has brought about change in how universities engage with civil society, in order to make the curriculum more relevant to their needs.
 - At the Wildlife Institute of India, there are two main forestry education programmes. One is a training programme for forest officers, and the other is a master's programme in Wildlife Management. Their experience is that (a) the training and teaching has been hands-on, case-based and field-based, and (b) it has to be innovative and up to date.
2. Students often lack opportunities for field work and internships in order to gain practical experience.
 - Students need soft skills and tools to work with local communities and stakeholders. The report is pragmatic and could include a philosophical angle to add moral guidance on why we need to take action to improve forestry education and to motivate and inspire students to become foresters.
 - Formal forest education only focuses on key technical skills, while practical skills (facilitation and communication) and understanding of social issues (e.g. gender, social inclusion and forest governance) are also necessary in a professional environment.
 - In Myanmar, there has been an increase in the number of forestry students. So it is difficult to accommodate students to undertake extended periods of field work during

their course. For example, 30 years ago there were probably 50 students in each intake studying forestry, and they were able to spend up to three months/year in the field. Nowadays there are up to 200 students in each intake; many of them only get to undertake two weeks of field work per year.

- In the Philippines, students feel that the required process to apply to undertake field work (due to security reasons) from the university is complicated and time consuming, so it discourages students from going to the field.
- In Canada, a co-op program gives students experience while they are in university. This has proven helpful to prepare students for professional work.

3. Forestry has an image problem.

- There is a need to introduce concepts pertaining to environment and forests in the early stages of education (e.g. elementary/secondary levels) to educate students to appreciate the value of forests within society and encourage them to pursue careers in forest-related fields.
- Forestry is perceived to have a specific education curriculum, a narrow career path and limited job opportunities when compared to the broader environment and business sectors. Hence forestry has become a less popular subject for students.
- Forest education across the region currently doesn't provide the relevant knowledge and skills for new graduates to compete in the job market.
- The Indian government has recognised forestry as a category for its civil service. This improved the status of forestry education in the country.
- In Indonesia, a career in forestry is perceived as trivial. Most forestry graduates do not work in the forestry sector but in other sectors.

4. There are gaps in the forest curriculum with respect to current global issues.

- Forest education needs to be more holistic and interdisciplinary. Different educational systems should communicate more and collaborate with the forest sector to update the forest/environmental curriculum.
- There is a need to integrate climate change, biodiversity into forest education and broaden the curriculum beyond forests and trees into the landscape level.
- Forest education needs to consider change in demographics and dynamics of changing rural landscapes. Using China as an example, millions have moved into cities, landscapes and forests and their use and management is changing. Small-scale forestry is not viable in many rural areas anymore.

5. Increased collaboration is needed across sectors and for resource mobilization.

- A challenge to overcome is to increase funding and resources to forestry education, which includes funding to train students on using new technologies.
- There is a lack of connection between universities and actors in forestry related industries (e.g. private sector and NGO). There is also a lack of connection between universities and local people (e.g. smallholder and community forestry groups). These gaps need to be bridged so that students can engage better with these stakeholders groups. This will help to increase students' interest and boost their pride to work in the forestry sector.
- Universities lack the resources to purchase a modern technology (e.g. GIS and drones). Students need practical skills for using this technology in the field. University resources are sometimes influenced by government policy.

6. Gender issues remain in forest education.
 - In many countries, there has been a noticeable increase in female graduates in forest education. However, while the number of female graduates in forestry has increased, many women continue to have difficulty finding a job in the forest sector.
 - It can be difficult to attract more women to study forestry in some countries, and this is handled differently across the region. For example, some universities are renaming relevant degrees to increase female enrolment. But discrimination against women in forest education continues in various ways; for example, in some countries women could be discriminated against because they are perceived to be physically weaker than men doing the same field work.
7. Many forest education institutions lack digital ready readiness.
 - Many forest education institutions need to upgrade their technology and digital communication tools in order to adapt to the post COVID-19 situation.
 - Many institutions need to revamp their online education system and curriculum to meet current educational needs and trends.
8. Informal modes of education should be integrated into forest education.
 - Stories can be very powerful tools to impart knowledge to young minds especially at the primary and secondary levels. Indigenous knowledge is also insightful and of relevance. Forest education curricula in many countries remain very much Western-centric and retain logic-based reductionist philosophies that have led to many current problems. Forest education curricula should be revised in such a way that it draws upon the wellspring of locally relevant indigenous knowledge and experience.

In addition to the summarised themes above, participants identified a number of specific recommendations and priorities for enhancing forest education. These are summarised below.

1. Forest education curricula should incorporate the strengthening of soft skills (communication, advocacy skills, etc.) to complement the technical skills of a traditional forest education.
2. Forest education curricula should look beyond the traditional forest sector and explore how the forest sector can contribute to pressing global challenges such as climate change, the transition to a circular bio-economy, and the increasing importance of community forestry and indigenous-based forestry models.
3. Links between forest education establishments and potential employers need to be strengthened. This would enable ongoing curriculum development to address the evolving needs of relevant sectors.
4. Universities should embed internship programs within the forest education courses and collaborate with professional organizations to establish guidelines for an internship program to ensure students benefit and gain real working experience from the programme. The programme should include a monitoring system, wherein teachers and lecturers maintain regular visits and communication with the students at the organization.
5. Universities should establish partnerships with other universities to share resources and enable students from other universities to use their facilities.
6. Governments should recognise the importance of forest education and increase the educational budget, so universities will be able to modernize curricula (including online forms of learning) and purchase necessary equipment (e.g. GIS and drones). The Food and Agriculture Organization of the United Nations (FAO) may collaborate with governments to support them to prioritize forest education and to improve internet infrastructure, learning facilities and the capacities of teachers at local levels.

7. A regional platform or network for dialogue should be created to allow for learning and sharing of experiences among university students, educators, and employers. This will help discuss the nature of competencies required from students and teachers to produce the graduates responding to the job market demand. The platform should be visible and accessible to all stakeholders in order to encourage cross-learning exchange and resource sharing between universities. FAO may consider collaborating with universities on this matter and linking it with a current similar initiative from the Asia-Pacific Network for Sustainable Forest Management and Rehabilitation (APFNet).

Discussions on priority thematic areas

On the second day, discussions focused on five key topics, identified from survey findings as priority thematic areas for enhancing forest education:

1. Integration of traditional knowledge into formal forestry education
2. Achievement of gender and social inclusion through forestry education
3. Integration of forestry and other land uses through forestry education
4. Developing forest-based enterprises through forestry education
5. Improving forest governance through forestry education.

Participant comments and feedback related to opportunities, challenges, priorities for action, and desired impacts in forest education for each topic during the breakout and plenary sessions are summarised below.

Summary of key opportunities

1. Integration of traditional knowledge into formal forestry education
 - Indigenous knowledge has been practiced for centuries, and the wisdom from traditional knowledge can benefit modern science (e.g. resource sustainability through good management).
 - Current challenges such as climate change can be addressed by some of the age-old practices and perspectives of traditional knowledge.
 - Food systems, agriculture systems including shifting cultivation, medicine, and architecture are some of the areas to which traditional knowledge can contribute.
 - Formal and informal education can integrate learning on forests at early stages in relation to local contexts. Ateneo de Manila University from the Philippines is one example. The university encourages field trips through nature walks, focusing on folklore stories about the trees and forest. This is a good starting point to help urban communities (school children and faculty) to develop an appreciation for forests. Informal learning can increase awareness and appreciation among the general community.
2. Achievement of gender equity and social inclusion through forestry education
 - Forestry education provides a key entry point to change mindsets towards gender inequality and women's role in forestry.
 - The very first step is to focus on increasing the number of women studying and teaching in forestry education. However, this is just the starting point. Beyond this, decision makers in forest education (who are typically men) need to understand that gender is not just about women and increasing their numbers, but that gender is a system of power, about shifting paradigms and patriarchy issues.

- Find entry points for curriculum change in order to educate and engage decision makers.
3. Integration of forestry and other land uses through forestry education
 - Work with existing research or educational platforms such as those supported by APFNet should be explored.
 - Develop case studies and best practices to prove and showcase the role of forestry in multidisciplinary approaches that can contribute to the Sustainable Development Goals.
 4. Developing forest-based enterprises through forestry education
 - There are job opportunities for forestry graduates in forest government agencies and private forestry companies. However, not all graduates are qualified with required skill sets.
 - IKEA forums with universities are an opportunity for graduates to be recruited by the company.
 - Encourage interdisciplinary collaboration with other departments (business, economics, etc.) within universities.
 5. Improving forest governance through forestry education
 - Provide outreach of the survey report findings among universities. In Nepal, survey findings could be used to develop more systematic learning methods to bridge community-based workers, students and policymakers.
 - Utilize mechanisms to share various forest-related curricula between universities across the region.
 - Include ongoing governance processes in curriculum, such as REDD+, FLEGT, etc.
 - Invite experts to talk, encourage students to attend webinars and other platforms of discussion.
 - Global forest initiatives should involve more academics and forest educators.
 - Promote innovation to engage the younger generation.

Summary of key challenges

1. Integration of traditional knowledge into formal forestry education
 - Myths regarding traditional knowledge cause marginalization of traditional practices. The general public needs to become more aware of what traditional knowledge can offer to advance forestry and be elevated to the same level as scientific knowledge.
 - It is important for traditional knowledge to be documented so that it is not lost or forgotten. Traditional knowledge is slowly being lost, forgotten, as it is traditionally orally transmitted. This causes it to be less accessible and also deemed less important. There is a need to regain experts and knowledge holders in the community to help transfer the knowledge to younger generations.
2. Achievement of gender equity and social inclusion through forestry education
 - Female numbers are increasing among students and faculty but leadership roles are still male dominated. Social norms favouring male power relations and women's traditional roles are still prevalent.
 - Women forestry educators and gender specialists need to play more prominent roles in curriculum revision processes.
 - Changing mindsets so that gender is not just an 'optional' or sub-field of the forest curriculum. It has to be mainstreamed as a core part of every course.

3. Integration of forestry and other land uses through forestry education
 - Breaking the boundaries between faculties and research departments to ensure an interdisciplinary and landscape approach.
 - Changing mindsets to better incorporate the role of forests within larger landscapes. The connections of forests with other sectors inside the landscape is too vast to ignore; for example, forest buffer degradation is linked to zoonotic diseases like COVID-19. Forests are part of the natural system that can support natural disaster risk minimisation.
 - Finding a balance for incorporating social components within forestry. While training of foresters in social dimensions is essential, core technical forestry skills should not be lost. The social side is only half of the equation. Technical forestry and forest management knowledge must be retained and strengthened. This then needs to be expanded to the landscape level where both the social and technical elements come together.
4. Developing forest-based enterprises through forestry education
 - Many forest economics courses do not meet requirements for forest-based enterprises. Therefore the curriculum needs to be revised to meet private sector and market needs.
 - In some countries, the government maintains control of the forestry industry, presenting challenges for private enterprise development in relation to forest products.
5. Improving forest governance through forestry education
 - Shift to interdisciplinary and holistic approaches in forest education
 - Many courses are too theoretical. A key challenge is to include more pilot projects for practice.
 - There is a lack of coordination. There is a need to establish networks of resource people with different expertise/backgrounds to contribute to forestry education curricula.
 - Social systems and issues need to be embedded in forest education curricula. This should include approaches to engage with communities, greater understanding of the values of the forests etc.

Summary of priority actions

1. Integration of traditional knowledge into formal forestry education
 - Traditional knowledge needs to be passed down to the next generation. Conferences on indigenous knowledge should be organised and the knowledge generated at these events can be shared with educational systems from primary to university levels.
 - Initiatives that can help integration are needed. The impacts and effects of the climate crisis is forcing the international community to look for more holistic approaches and these can be found in traditional knowledge. NGOs in many countries are helping document traditional knowledge.
2. Achievement of gender equity and social inclusion through forestry education
 - Provide opportunities and incentives to increase numbers of female leaders in forestry education.
 - Tackle some of the barriers that may inhibit women to participate on the same level as men. For example, in training programs, provide additional resources for women with children such as babysitters, so they don't have additional burdens.

3. Integration of forestry and other land uses through forestry education
 - Landscape approaches should be emphasized as these are the best ways to encourage interdisciplinary thinking.
 - Increase the availability of research funding. In countries where national funds may be limited for investment in forestry related initiatives and outreach, international projects can become an important laboratory and opportunity. Case studies and pilots such as model forests are important opportunities for learning.

4. Developing forest-based enterprises through forestry education
 - Capacity building to improve the mindsets and skills of teachers to be able to incorporate entrepreneurial mindsets into the curriculum.
 - Create platforms, such as regional conferences, and dialogues, that facilitates knowledge sharing and seeks cooperation with private companies to increase opportunities for student internship and further opportunities.
 - Advocate to policymakers to support the sustainable commercialization for the forest related products. There is a demand from the market and from on-the-ground stakeholders, but policy support is important to ensure no over-regulation.

5. Improving forest governance through forestry education
 - Coordinate multi-stakeholders (including universities and local people) to develop learning sites to discuss governance practices, challenges, etc.
 - Translate survey findings into national languages for wide accessibility.

Summary of key desired impacts

1. Integration of traditional knowledge into formal forestry education
 - A paradigm shift from the conventional perception that forestry is about trees and forests with no people, to a more inclusive mindset focusing on the interaction between people and forests.
 - The wisdom of sustainability in traditional knowledge is integrated into modern forest education.

2. Achievement of gender equity and social inclusion through forestry education
 - Female numbers continue to increase among students and faculty, and women move into leadership roles in forest education that are still male dominated.
 - A changed forest education mindset and curriculum where gender is not considered as an ‘optional’, sub-field of the forest curriculum, but is mainstreamed as a core part of every course.
 - Social norms favouring male power relations and women’s traditional roles in the forestry sector become less prevalent, affording women greater opportunities and respect in forestry professions.

3. Integration of forestry and other land uses through forestry education
 - Forest education prepares students, decision makers, and the public to understand the value of forests in relation to other land uses and sectors, and how forestry can be integrated within a broader landscape scale that is linked with GDP contribution.
 - Landscape approaches are an optimal way to encourage interdisciplinary thinking.

4. Developing forest-based enterprises through forestry education
 - Modernized forest education curricula with teaching materials to meet the requirements for forest-based enterprises development.
 - Well-equipped forestry students and graduates with requisite entrepreneurial mindset and skills (including soft skills).

5. Improving forest governance through forest education
 - Stronger role from the government and policy shift in implementing forest governance and promotion of multi-stakeholder engagement to accommodate the interests of different stakeholders.
 - Reaching common goals and good collaboration across the board.
 - Creation of a generation of ‘forest champions’ or ‘heroes of the forest’ who take care of forests at local levels.

CONCLUDING REMARKS

Greater collaboration is needed between universities, governments and professionals to address the challenges and gaps in forest education in order to better prepare and improve the key competencies of forestry graduates to match with the knowledge and skill requirements of the job market. Key opportunities to do this include increasing opportunities for field work and workplace experience so that forestry students are able to acquire the requisite soft and practical skills.

Forestry education should not be a standalone subject or curriculum but needs to be more holistic and interdisciplinary in order to look beyond forests and trees and link with the broader global issues such as climate change, food security, environment and agriculture. Social topics and issues (gender, social inclusion, traditional knowledge, and forest governance) and entrepreneurial skills should be integrated into forest education curricula.

To overcome these challenges, governments should clearly recognise the importance of forest education in addressing global issues and the potential contribution of forests to multiple Sustainable Development Goals (beyond SDG 15). Development agencies should work to facilitate greater collaboration between governments and universities.

Communique or summary of session

The Regional Expert Consultation Workshop on Forest Education in Asia and the Pacific was co-hosted by RECOFTC and the International Tropical Timber Organization (ITTO) on the mornings of 4-5 February 2021. The aims of the workshop were to validate findings from a survey for forest education undertaken in the Asia and the Pacific region, prioritize gaps and needs to strengthen forest education, and identify recommendations to improve forest education.

The workshop was attended by 62 experts from 15 countries from different sectors (educational institutions, government agencies, development agencies, private sector, labour unions, and current and recently graduated forest students).

Key themes from workshop discussions are summarised below:

Gaps in forest education

Job competency, forest career image, collaboration across sectors and interdisciplinarity were identified as key issues in forest education in Asia and the Pacific. Participants noted that the competencies of new forestry graduates do not meet the standard requirements of the job market due to the lack of field work and workplace experience. Forestry careers are traditionally perceived in many countries as being dangerous with limited job prospects and income-earning potential compared to the medical or business sectors. A lack of collaboration between educators and employers was identified as a major factor hindering forestry students from acquiring the necessary skills for job competitiveness. Participants also noted that there is a need for forest education curricula to become more interdisciplinary.

Integration of traditional knowledge into formal forestry education

Traditional knowledge practices and wisdom can benefit modern science. The general public should be aware of what traditional knowledge (such as models of sustainable agriculture) can offer to advance forestry and be accorded the same level of importance as western scientific knowledge. Traditional knowledge is slowly being lost, and there is a need to document and integrate this knowledge into modern forest education.

Achievement of gender equity and social inclusion through forestry education

Forestry education provides a key entry point to change mindsets towards gender inequality and women's role in forestry. Although female numbers are increasing among forest students and faculty, leadership roles are still predominantly held by men. A changed forest education mindset and curriculum where gender equality and social inclusion are not considered as an optional sub-field of the forest curriculum, but is mainstreamed as a core module of every course, would help to strengthen gender equality and improve social inclusion in forestry education.

Integration of forestry and other land uses through forestry education

Landscape approaches are an optimal way to encourage interdisciplinary thinking and link forest education with other disciplines. Case studies and best practices should be developed to demonstrate and showcase the role of forestry within multidisciplinary approaches that can contribute to the achievement of multiple Sustainable Development Goals (beyond SDG 15).

Developing forest-based enterprise through forestry education

Job opportunities are available in the forestry sector but new forestry graduates are not equipped with the requisite knowledge and skills relating to forest-based enterprises. There is a need to change the mindsets and curricula in forestry education that emphasises forestry as a conservation field, and draw attention to the potential of forest-based enterprises.

Improving forest governance through forestry education

Millions of people across Asia and the Pacific reside in and depend on forest landscapes for their livelihoods. Hence social systems and issues need to be embedded in forest education curricula. This includes teaching students skills and approaches on how to better engage with local communities, helping students gain a greater understanding on the value of the forests, and developing learning sites where students could engage with local stakeholders to discuss governance practices and challenges.

Annex 1: Participant list

No	Name	Gender	Country	Position	Organization	Category
1	Abigail Marie Favis	F	Philippines	Program Manager for Campus Sustainability	Ateneo Institute of Sustainability	University
2	Arifah Hidayati	F	Indonesia	IFSA Member	International Forestry Students' Association	Student
3	Arlene Gonzales	F	Thailand	Student	Asian Institute of Technology	Student
4	Arturo R. Barrit	M	Philippines	Environment and Media Liaison Officer	Associated Labour Union (ALU), Philippines	Labor union
5	Attachai Jintrawet	M	Thailand	Professor, Faculty of Agriculture	Chiang Mai University	University
6	Aung Kyaw Naing	M	Myanmar	Program Officer	RECOFTC	Environmental NGOs
7	Bahram Naseri	M	Iran	Director	Caspian Forest Tree Seed Center-FRWO	Government
8	Bian Minming	M	China	Programme Officer	State Academy of Forestry Administration	Educational leaders
9	Bitapi Sinha	F	India	Scientist	Wildlife Institute of India	Government
10	Bounyadeth Phouangmala	M	Lao PDR	Country Director	RECOFTC	Environmental NGOs

11	Chandra Silori	M	Thailand	Deputy Executive Director	RECOFTC	Environmental NGOs
12	Cristi Nozawa	F	Manila	Executive Director	The Samdhana Institute	Environmental NGOs
13	Damayanti Buchori	F	Indonesia	Professor	Institut Pertanian Bogor University	University
14	David Brand	M	Australia	Chief Executive Officer	New Forests	Private sector
15	Eren Zink	M	Thailand	First Secretary/Research Advisor	Sida	Donor
16	Gabriella Lissa	F	Indonesia	Training Coordinator	RECOFTC	Environmental NGOs
17	Hiromi Waragai	F	Japan	Student	Hokkaido University	Student
18	Horst Weyerhaeuser	M	Thailand	Project manager	RECOFTC	Environmental NGOs
19	Hung Luong Quang	M	Vietnam	Wood Supply and Forestry Specialist	IKEA Services (VietNam) Co., Ltd.	Business organization
20	Idd Idd Shwe Zin	F	Myanmar	Professor	University of Forestry and Environmental Science Public	University
21	Illias Animon	M	Thailand	Forestry officer	FAO-RAP	Environmental NGOs

22	Inoue Mariko	F	Japan	Researcher	Japanese Forestry and Forest Products Research Institute	Government
23	Jesse Mahoney	M	Australia	Director,	International Forest Policy, Department of Agriculture, Water and the Environment	Government
24	Juan Pulhin	M	Philippines	Professor	University of the Philippines Los Banos	University
25	Katherine Caouette	F	Thailand	Teacher	Wells International School	High School
26	Katherine Warner	F	Australia	International Environment, Climate Change and Development Consultant/Sustainability Research Centre,	University of the Sunshine Coast	University
27	Kelsey Hanrahan	F	Australia	Senior Policy Officer	Native Forest Policy, Department of Agriculture, Water and the Environment	Government
28	Kessaissaia Abderrahmane					Government
29	Lakshmy Jalaja Rajan	F	India	Intern	FAO-Rome	Environmental NGOs
30	Lin Yu	M	China	Deputy Director	International Relations Office, Beijing Forestry University	University

31	Linqian Kang	F	China	Program Officer	National Academy of Forestry and Grassland Administration of the People's Republic of China	Educational leaders
32	Mao Qi	F	China	Program Officer	International Cooperation Center, NFGA	Government
33	Maria Katrina Constantino	F	Philippines	Instructor	Department of Biology, Ateneo Institute of Sustainability	University
34	Matt de Jongh	M	Australia	Assistant Director	Native Forest Policy, Department of Agriculture, Water and the Environment	Government
35	Maung Maung Than	M	Myanmar	Country Director	RECOFTC	Environmental NGOs
36	Megha Bajaj	F	Thailand	Student	Asian Institute of Technology	Student
37	Meng Loth	M	Cambodia		NGO Forum	Environmental NGOs
38	Menuka Maharjan	F	Nepal	Institute of Forestry	Tribhuvan University Public	University
39	Minh Toai Pham	M	Vietnam	Deputy Head of Training Division/Lecturer in Forest Ecology and Silviculture	Vietnam Forestry University	University
40	Naruemol Kaewjampa	F	Thailand	Assistant Deputy Dean for Education, Faculty of Forestry	Kasetsart university	University

41	Peter Moore	M	Italy	Forestry Officer Fire Management and Disaster Risk Reduction	FAO	Environmental NGOs
42	Pheap Sophea	M	Cambodia	Land and Forestry Program Manager	NGO Forum	Environmental NGOs
43	Prabin Bhusal	M	Nepal	Assistant Professor Institute of Forestry	Tribhuvan University, Pokhara, Nepal Public	University
44	Rachanee Pothitan	F	Thailand	Assistant Professor	Kasetsart University	University
45	Rawee Thaworn	M	Thailand	Capacity Development and Research Coordinator	RECOFTC	Environmental NGOs
46	Reny Juita	F	Indonesia	Partnership Officer	RECOFTC	Environmental NGOs
47	Rex Victor Cruz	M	Philippines	Professor	University of the Philippines Los Banos	University
48	Robin Aus Der Beek	M	Thailand	Project coordinator	RECOFTC	Environmental NGOs
49	Rose Jane Peras	F	Philippines	Professor	University of the Philippines Los Banos	University
50	S.H. Bandumala	F	Sri Lanka	Conservator of Forests/ Director	Sri Lanka Forestry Institute	University
51	Say Jeudi	F	Cambodia		NGO Forum	Environmental NGOs

52	Sittiporn Rodprisom	M	Thailand	Project Officer	RECOFTC	Environmental NGOs
53	Sixian Zhenng	M	China	Program Officer,	Department of International Cooperation, NFGA	Government
54	Sumire Williams	F	Japan	Researcher	Japanese Forestry and Forest Products Research Institute	Government
55	Suraya Afiff	F	Indonesia	Professor, Department of Anthropology, Faculty of Social and Political Sciences	University of Indonesia	University
56	Sushma Bhattarai	F	Nepal	Assistant Professor Institute of Forestry	Tribhuvan University, Institute of Forestry, Nepal	University
57	Tetra Yanuariadi	M	Japan	Projects Manager	International Tropical Timber Organization (ITTO)	Environmental NGOs
58	Tran Thi Thu Ha	F	Vietnam	Deputy Dean, Postgraduate Studies Faculty, Lecturer of Economics & Business Management	Vietnam Forestry University	University
59	Tran Van Chau	M	Vietnam	Program Officer	RECOFTC	Environmental NGOs
60	Yanxia Li	F	China	Senior Programme Officer	International Bamboo and Rattan Organisation	Environmental NGOs
61	Yu Lin	M	China	Deputy Director	International Relations Office, Beijing Forestry University	University

62	Yujun Sun	M	China	Professor	Beijing Forestry University	University
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