



## CHAIRMAN'S MESSAGE

*Greetings from Colombo!*

The Asia Pacific Forestry Week in April must be, by far, one of the biggest forestry events, if not the biggest, organized by FAO in this region. The week-long event, in conjunction with the Asia Pacific Forestry Commission session meeting, was attended

by more than 500 registered participants from all APFC member countries and most of the regional, and many international, organizations related to forestry. APAFRI assisted FAO in the overall organizing of the week-long event, handled the on-line registration which started a few months earlier, and also in compiling and producing a CD for this event. As an active regional forestry organization, APAFRI was also a joint organizer which organized the *Asia Pacific Forest Invasive Species Network* workshop, and the *Special Session on forestry research and education in a changing world: vision for Asia-Pacific region*. APAFRI has also put up a display booth and distributed out various pamphlets, publications and workshop proceedings on CDs. As quite a number of its members were representing their countries or agencies at this event, the Executive Committee seized the opportunity to hold its 15th Meeting on the afternoon of 22 April 2008.

Earlier this year, in January, APAFRI also assisted FAO in organizing a regional workshop for the implementation of the Voluntary Guidelines for Responsible Management of Planted Forests. The workshop, convened for four days from 21–24 January 2008, gathered together the stakeholder representatives from four countries: China, Lao PDR, Thailand and Viet Nam to learn and share views concerning their respective planted forest sectors and the Voluntary Guidelines; and also to prepare action plans such as project, programme or strategy proposals.



Three of the participating countries in the ITTO funded project on forest genetic resources conservation and management – Cambodia, Thailand and Myanmar – held their national consultative workshops during the months of February and March. A compilation of the proceedings for two past meetings had also been published. This project is entering its final year, and an

end-of-project workshop/seminar would be organized towards the end of this year or early next year to sum up the achievements under this project as well as to formulate future plans for continuation of work in this important area of conserving and managing forest genetic resources in the region.

The region, however, had suffered from many setbacks during the past six months. All nations in the region have been eagerly waiting to witness what China claimed would be the grandest and most spectacular Olympic Games that the world had ever organized, to be opened in August in Beijing. All these enthusiasms had been hampered by a series of political turmoil in a number of countries, which had been compounded by the worsening economies caused by weakening economies in a number of developed nations, notably the United States of America. The rapid escalation in the price of oil, which hit USD135 per barrel, and is rumoured to reach USD150 per barrel in a few more months, had further fueled the already high inflation prevailing in this region. Even the price of the staple food of most Asian nations – rice – has soared to unprecedented heights. Street protests and demonstrations urging governments to impose better inflation control measures are being held in cities across the region. On top of all these, a number of natural disasters – the cyclone Nargis which hit Myanmar on 2 and 3 May, and the May 12 earthquake of Sichuan Province China – had devastated hundreds of villages, killed hundreds of thousands,

and millions have been made homeless. China has been further wrecked; just recently – a number of its southern provinces were hit by huge floods, causing much economic damage, loss of human lives and dislocated millions. Japan was also shaken by a severe earthquake in June; fortunately the epicenter was in remote and thinly populated mountainous area. Still human lives were lost, infrastructure damaged and local economy dented.

Could forestry in any way lessen the impacts of these natural calamities; and also some of the human-induced ones as well? Our learned colleagues in forestry could easily name, tens of hundreds of, products and services of the forests that could directly or indirectly contribute to lessening the impacts of all these. Managing and utilizing these products and services sustainably to maximize their

potential benefits would require commitments and concerted efforts from all stakeholders. APAFRI, being a regional network, with the active participation and contributions of its member institutions, could contribute to these by serving as a platform for sharing and exchanging of information, knowledge and experiences. I would like again to urge members to regularly communicate with the Executive Committee, through the Secretariat, to guide us in managing this Association to serve you better!

With best regards,

Sarath Fernando  
Chairman, Executive Committee  
APAFRI  
June 2008

## FIFTEENTH APAFRI EXECUTIVE COMMITTEE MEETING

Hanoi, Viet Nam  
22 April 2008

The 15th APAFRI Executive Committee Meeting was convened during the Asia Pacific Forestry Week in Hanoi, Viet Nam. This meeting, the third for the current Executive Committee was attended by:

- o **Mr. Sarath Fernando (Chairman)** Forest Department Sri Lanka.
- o **Dr. Nur Masripatin (Vice-chair)** Forestry and Estate Crop Research and Development Agency (FORDA)
- o **Datuk Dr Abdul Razak Mohd Ali (Immediate Past Chairman)** Forest Research Institute Malaysia (FRIM)
- o **Dr CN Pandey** Indian Plywood Industries Research and Development Institute (IPRDI)
- o **Prof Dr Mohd Hamami Sahri** University Putra Malaysia (UPM)

- o **Mr. Roy Banka** Papua New Guinea Forest Research Institute (PNG -FRI)
- o **Dr. Chong Se Kyung (representing Dr Park JungHwan)** Korea Forest Research Institute (KFRI)

**Dr Daniel Baskaran**, Executive Secretary, and **Dr Sim Heok Choh** Executive Director, APAFRI Secretariat, were also in attendance.

The meeting began with the Chair welcoming all the members present and thanked them for taking time off from their work and to be here in Hanoi to attend this meeting and also the Asia Pacific Forestry Week (APFW). The Chair also welcomed Dr. Park's representative, Dr Chong Se Kyung, and also Dr. S. Appanah from FAO, to this meeting. He conveyed the apologies of the other members who could not attend this meeting due to their other commitments.

On the issue off training courses and study tour, the Chair suggested that for 2008 APAFRI should advertise some planned study tours. Dr. Appanah



made it known that APAFRI is now recognized in the region and any proposal would have a better chance of funding if submitted through this organization. However he also suggested that such planned activities should have a sub-regional flavour to attract more countries to participate and hence having a right composition that will attract donors to make their contributions or support people to such events. The members also agreed that APAFRI should organize specialty courses that could be run regularly by the organization. The specialists to conduct such courses could be tapped from within the region, as the Asia Pacific does have talents available which could adequately handle such courses. It was hoped that if good and relevant courses are organized this could also generate revenue for the organization.

As regards the IUFRO/ITTO funding for technical meetings and pre-congress training workshops for the upcoming IUFRO Congress 2010, the EC opined that APAFRI should play an active role in such activities. The meeting was also informed of the contributions

from the Korea Forest Research Institute to IUFRO for activities in Asia Pacific region which would be managed by APAFRI.

On the issue of payment of fees for membership, the meeting was informed that due to the small fees and the high cost of remittance and amount of paperwork involved, some countries are having problems in paying their dues. It was suggested that for such countries they could make payments once every five or more years in advance. It was further suggested that probably the members from these countries could make donations to APAFRI which can then be offset against the annual fees.

Before adjourning the meeting, the Chairman again thanked the various agencies, especially FRIM, FAO, Korea Forest Research Institute, USDA and many others, for the financial and in-kind contributions, which had been vital for the sustainability of APAFRI all these years.

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# TOWARDS RESPONSIBLE MANAGEMENT OF PLANTED FORESTS

*A regional workshop for the implementation of the Voluntary Guidelines for Responsible Management of Planted Forests*

**Suriwongse Hotel, Chiang Mai, Thailand  
21–24 January 2008**

## INTRODUCTION

Recognizing the economic, social, cultural and environmental importance of planted forests, Governments and other stakeholders asked FAO to prepare, together with collaborating partners, a set of principles, guidelines and key considerations in support of the policy, legal, regulatory and technical enabling conditions for planted forests management. An official request from the FAO Member States was made at 17th COFO in 2005. The Voluntary Guidelines for Responsible Management of Planted Forests were derived through an extensive multi-stakeholder process coordinated by FAO over a period of two years. Experts in planted forests from Governments, the private sector (corporate and smallholder), non-governmental (social and environmental) and intergovernmental organizations and academics were involved in the process.

The 18th COFO in 2007 commended FAO for facilitating the multi-stakeholder process to develop the Voluntary Guidelines on Responsible Management of Planted Forests and recommended that FAO work with Members and partners, including the private sector, forest owners and environmental NGOs towards the implementation of these Voluntary Guidelines.

The Voluntary Guidelines for Responsible Management of Planted Forests is a tool for improving planning, management and monitoring of planted forests and to help in balancing the trade offs between institutional, economic, political, social, cultural and environmental aspirations and values.

The scope of the guidelines is global: they may be adapted and applied to planted forests in all eco-geographical zones and to countries, regions

and landscapes in all stages of socio-economic development. Acceptance and implementation of the Voluntary Guidelines is not legally binding.

The Voluntary Guidelines do not replace existing national or international laws, commitments, treaties or agreements. Rather, they establish a framework supporting dialogue in the formulation of policies, laws, regulations and strategic and management plans that, in turn, will help improve enabling conditions and enhance capacity and capability in planted forests management.

The objectives of the Voluntary Guidelines are to:

- Promote the positive contribution that planted forests can make to meeting people's livelihood needs, including food security, the production of wood and the safeguarding of environmental values;
- Codify generally accepted principles for strengthening the policy, legal and institutional enabling framework for sound investment in and management of planted forests, including the economic, cultural, social and environmental dimensions of sustainable forest management; and
- Contribute to an improved understanding of planted forests, in order to aid the formulation and implementation of national and sub-national planted forests policies and programmes.

## THE WORKSHOP

The process for translating the Voluntary Guidelines for Responsible Management of Planted Forests into

action proposals consists of two main phases: (1). a multi-stakeholder process at country level; and (2). a multi-stakeholder workshop at a regional level gathering representatives from four countries.

During the months of October, November and December 2007, four countries: China, Lao PDR, Thailand and Viet Nam, have nominated national focal points and completed their country-level multi-stakeholder process. Following these, a workshop was organized to carry out the second phase, the regional-level process. This workshop was successfully convened for four days from 21–24 January 2008 in Chiang Mai, Thailand. Twenty four stakeholder representatives from the four countries, China, Lao PDR, Thailand and Viet Nam attended the workshop to learn and share views concerning their respective planted forest sectors, and the Voluntary Guidelines. Four officers from the United Nations Food and Agriculture Organization: Jim Carle, Patrick Durst, Fan Xiaojie and Linda Rosengren facilitated the workshop. They were assisted by Sim Heok-Choh, Syuqiyah Abdul Hamid and Nazratul Raudzah Abd Rahman of the Asia Pacific Association of Forestry Research Institutions (APAFRI).

During this workshop, the participants prioritized problems critical to planted forests in their countries by brain storming and discussions in break away groups. They then developed logical frameworks for these problems and prepared action plans which could later be modified into project, programme or strategy proposals.

*(Adapted from a report prepared by APAFRI to FAO)*



21-26 April 2008, Hanoi, Vietnam

## ASIA-PACIFIC FORESTRY WEEK

Forestry in a Changing World



# TWENTY-SECOND SESSION OF THE ASIA-PACIFIC FORESTRY COMMISSION

Hanoi, Viet Nam  
21-25 April 2008

The twenty-second session of the Asia-Pacific Forestry Commission (APFC) was convened in Hanoi, Viet Nam, 21-25 April 2008. Delegates from 31 member countries and 6 United Nations organizations participated in the session, along with observers and representatives from 5 non-member countries and 33 regional and international inter-governmental and non-governmental organizations. The Russian Federation had attended this session as a new member of the Commission.

Recognizing the desire to see specific Asia-Pacific regional issues recognized and articulated in wider regional and global processes, this session of the APFC was organized as the core activity within a broad concept of Asia-Pacific Forestry Week. Special plenary sessions were organized on three separate mornings of the week, focused on forests and human well-being, forests and climate change, and forest law compliance and governance. In addition, 28 parallel events were organized by various partner organizations during the week. The week-long event also featured an Information Market with 27 organizational booths, 55 posters, a photo exhibit, and three book launching events. This

event had attracted more than 700 participants from 55 countries. More than 40 partner organizations supported this Asia-Pacific Forestry Week with financial and in-kind contributions.

As an active regional network in the region, APAFRI was involved in several aspects of organizing this grand event. APAFRI, jointly with other agencies, also organized two parallel sessions: one on invasive species and the other one on education and research. The APAFRI Secretariat was responsible for the online registration which started several months before the event, and was also tasked to compile the various documents and materials on to CDs for the event. During the week-long event, APAFRI had put up a display booth, which was strategically located next to the main entrance, for distributing out publications and proceedings on CDs. The APAFRI Secretariat staff members were also actively involved in other parallel sessions including the proposed Asia Pacific Universities Forest Education Network (APUFEN) meeting, the Asia Pacific Forest Invasive Species Network (APFISN) Executive Committee meeting, and the IUFRO Global Forest Information Service (GFIS) session.



# ASIA-PACIFIC FOREST INVASIVE SPECIES NETWORK (APFISN) WORKSHOP -

## *Risk-Based Targeted Surveillance for Forest Invasive Species*

Hanoi, Vietnam  
20–23 April, 2008

A workshop on 'Risk-based targeted surveillance for forest invasive species' was held at the National Convention Centre, Hanoi, Vietnam, 20–23 April 2008, in conjunction with the Asia-Pacific Forestry Week. The workshop was sponsored by USDA Forest Service and organized by APFISN in association with FAO, the Asia-Pacific Association of Forestry Research Institutions (APAFRI) and USDA Forest Service. The main objectives of the workshop were:

- To identify various geophysical, biological, ecological and social data and processes to integrate into a risk-based approach to select appropriate pest targets and survey areas to maximize the chance for early detection of forest invasive species,
- To identify specific surveillance techniques utilized in early detection of high risk invasive species,
- To promote the use of general awareness and targeted community engagement for early detection programmes,
- To develop appropriate information management techniques for use in surveillance programmes.

Patrick Durst, Senior Forestry Officer, FAO Regional Office for Asia and the Pacific, Bangkok, in his welcoming address, outlined the history of the APFISN, its objectives and the various activities of the network since its inception. Larry Yarger (USDA Forest Service) stressed that invasive alien species (IAS) is a global issue and this workshop is intended to address some of the important issues concerning prevention of new incursions of IAS to the Asia-Pacific region and mitigation of the associated harmful effects. He further assured the continued support of USDA Forest Service to the activities of APFISN. Sarath Fernando, Chairman of APAFRI, observed that workshops organized by APFISN provided much needed opportunities for the participants from this region in sharing and exchanging information and experience on combating the threats of invasive species. He further emphasized the need of capacity building in the member countries to deal with the various pathogens and pests which had invaded the region.

D.B. Dhital discussed the problem of bark beetle *Ips schmutzenhoferi* on spruce and blue pine forests in Bhutan. In its natural environment, the beetle attacks

trees and logs of spruce and blue pine. Drought is one of the factors which triggers attacks by bark beetle. To contain the problem, the trees are regularly monitored to identify outbreaks. Freshly attacked trees are felled and debarked immediately before beetles become adults and escape from the breeding host.

Wida Darwiati reported that the most widespread pest on *Pinus merkusii* in West Java is *Pineus boeneri*, a polyphagous insect. Infestation results in decline in the growth of older trees and death of young ones. Natural insecticides such as pine wood acid or logged wood acid mixed with *Bacillus thuringiensis* is found to be effective in controlling the insect. In Indonesia too, teak is affected by various pests such as *Hyblaea puera*, *Pyrausta macheralis*, stem borer, *Neotermes tectonae*, etc.

Takeshi Toma briefed the gathering on the invasive species potentially threatening Japanese forestry and forest biodiversity: pine wilt nematode, Asian longhorned beetle, *Erythrina* gall wasp, and *Quadrastichus erythrinae*. Potential invasive species through international trade of wood would also include *Ips cembrae*, *Xyleborus perforans*, *Ips sexdentatus*, etc.

Grace Tabitha Lim discussed the pests and diseases of some forest plantation species in Malaysia. Leaf wilt and root rot are the main disease problems in rubber, while *Acacia mangium* is affected by phyllode rust and red root rot (caused by *Ganoderma philippi*). In teak, leaf defoliators *Hyblaea* and *Paliga* caused the most damage. The mahogany shoot borer *Hypsipyla robusta* is successfully controlled by the ant *Oecophylla smaragdina*. Infestation by barnacles on *Avicennia officianalis* is a recently encountered problem.

Wai Wai Than presented a risk-based targeted surveillance for the grass *Pennisetum* in Myanmar. Three species of *Pennisetum*, *P. polystachyon*, *P. pedicellatum* and *P. purpureum*, are causing damages to teak plantations in Myanmar. These species thrive well on roadsides, open dry land and plantations. Manual weeding has not been very effective in containing the weeds.

Forest resources in Pakistan, like other parts of the world, are under pressure from factors such as



increasing human population, poverty, and other socio economic factors and natural and biological factors. *Rizwan Irshad* reported that the limited awareness of the invasive species problem in Pakistan, and the lack of capacity to address the problem have resulted in poor attention to the issue. Also, relatively less effective and delayed response in reporting, reacting and managing the invasive species has increased negative impacts due to IAS. Some of the important invasive species in the country are *Broussonetia papyrifera* (paper mulberry), *Lantana camara*, *Parthenium hysterophorus* and *Prosopis juliflora*.

According to *Ross Wylie*, globalization, increased volumes of containerized freight and competition for space at domestic ports, mean that goods are increasingly being first opened at premises some distance from the port of entry, thus dispersing risks away from the main inspection point. A system of post-border surveillance targeting these areas, often referred to as 'hazard site surveillance', is being developed in several countries as a backstop to border control to ensure early detection of invasive species. This is particularly important for some of the more cryptic forest pests whose presence in a forest often is not discovered until populations are already high and the pest is well established. In choosing which pests to target for hazard site surveillance there are a range of factors to consider and a nine-step guide is presented to assist in this process, which he discussed using an example from the Pacific – *Hypsipyla robusta* shoot borer of mahogany and other trees; and another example from Asia – *Sirex noctilio* wood wasp affecting many species of *Pinus*.

*Marla Downing*, USDA Forest Service, discussed the method of assessing hazards and identifying sites for sampling invasive pests citing the example of *Sirex noctilio*. The places to target are between port of entry and distribution centres. A susceptibility potential map can be prepared by identifying and mapping potential hosts and rating disease establishment potential of trees. Patches of trees near ports where the pests can hop on are also areas where traps need to be set.

*Tim Wardlaw*, Forestry Tasmania, Australia, mentioned that detecting forest pathogens is a big challenge since the vegetative stage is hidden in host, damage symptoms are non-specific and fruiting bodies and spores more diagnostic but very small. The methods of detection include visual symptoms, fruiting bodies, screening asymptomatic plants (culturing onto agar, DNA tests), soil/water sampling, etc. Sentinel tree surveys involve regular inspections of specifically located areas – near hazard sites or disease-free areas beyond infection fronts. Blitz surveys are detailed inspections for damage of trees in a local area covering all trees present. Area-freedom surveys are designed for defined areas to

prove absence of a pathogen. The quarantine screening may be focused on a small number of plants and is generally based on symptoms.

*Larry Yarger* presented a flow chart on early detection and rapid response, and explained the various steps involved in arriving at the correct diagnostics, and also in records keeping and communications. The success of diagnostics will depend upon effective communications and cooperation among pest specialists in government, industry, academia and the general public.

Potential threats of invasive species in Fiji are *Sirex noctilio* (Pine wood wasp), *Hypsipylla* sp. (mahogany shoot borer) and Asian gypsy moth as reported by *Sanjana Lal*.

*Hiroshi Makihara* (Japan) talked on the use of different types of insect traps which can be set up on trees including *Artocarpus*.

*Jianbo Wang* and *Hongbin Wang* reported that more than 8000 species of forest pest species have been recorded of which about 200 can cause damage and more than 20 of them are very damaging, in China. These include: pinewood nematode, red turpentine beetle, fall webworm, Japanese pine needle scale, loblolly pine mealy bug, coconut beetle, etc. China has established 1000 national forest pest monitoring and forecasting stations and more than 8000 monitoring sites throughout the whole country. Investigations were done using light traps, traps with insect attractants, airborne video monitoring and GIS monitoring techniques. Sharing of data is done through a website of forest information centre. The occurrence and the trend of forest pest can be reflected visually by the *Chinese Forest Pest Index* which is updated regularly.

*Mike Cole* said that currently most of the countries in the Asia-Pacific region have limited resources, capacity and capability, versus the needs for early detection for more effective incursion response/management of exotic pests. Early detection generally means seeking answers to the common questions such as: what to look for (impact, chances of detection and eradication), where to look (pest biology, host plants, environmental stability, areas of more movement), and when to look (pest biology/life cycle, host biology/life cycle)? For general surveillance, identification and a range of surveillance sources are critical.

The participants were divided into three small groups on the last day of the workshop before closing, and the following recommendations were the results of the group discussions:

1. Training in methodology for forest health surveillance and provision of some basic equipment to do this is a top priority for the majority of countries in Asia and the Pacific;
2. A list of key pests (insects, fungi, weeds) should be compiled for the region with information on their known distributions, hosts, importance and management;
3. A list of experts who can assist with identifications is to be compiled and posted on the APFISN website;
4. A list of websites of databases and images useful for identifications is to be compiled and posted on the APFISN website;
5. Efforts are to be made to improve communication between members of APFISN.

*(Adapted from a report prepared by Dr KV Sankaran, Coordinator of APFISN)*



SPECIAL SESSION ON



# FORESTRY RESEARCH AND EDUCATION IN A CHANGING WORLD: VISION FOR ASIA-PACIFIC REGION

24 April 2008, Hanoi, Viet Nam

In an era of globalization and a fast changing world, forestry research and education too are undergoing rapid transformation, particularly in the Asia-Pacific region. Significant changes are taking place in forest products trade and as the economies of this region grow, the demand for different forest products including timber and industrial wood is increasing at a very fast rate. Biodiversity conservation, management of forest invasive species, climate change, bio-fuels, forest certification, nano-technology, agroforestry, community forest management and policy issues are the emerging areas of forestry research in this region.

Population growth, migration, urbanization, globalization, changes in technology, climate change and emergence of new forestry agenda are transforming research and education needs. A large number of organizations, universities, institutions and non-governmental organizations, both inside and outside the traditional forestry sector, are now engaged in forestry research and education, recognizing this as an important part of their activities. These drivers of change also have a significant impact on forestry education which has emerged from the portals of forestry research institutes, and is now mainly anchored in universities across this region.

Recognizing the need to sensitize the stakeholders about the present status of forestry research and education in

the Asia-Pacific region, and also the need of reorienting and upgrading it to meet the emerging challenges in forestry sector, the Indian Council of Forestry Research and Education (ICFRE), the nodal organization for forestry research and education in India, and the Asia Pacific Association of Forestry Research Institutions (APAFRI), an NGO with members across the region, jointly organized a Special Session on "Forestry Research and Education in a Changing World" at the **Asia-Pacific Forestry Week** at Hanoi. Forestry researchers, research managers, and educationists from this region were brought together to deliberate on various issues related to forestry research and education, primarily to formulate an approach paper for the year 2020 that will help this sector to meet the emerging challenges posed by globalization and a fast changing world. Achieving the objectives of this Special Session would support the process of re-orientation of forestry research and education in the Asia-Pacific region to correspond to the emerging importance of forestry sector in poverty alleviation, environmental security, and climate change mitigation. The Special Session was also intended to provide an insight into the adequacy of the research and education infrastructure, ways and means of addressing the inadequacies therein, possibility of resource mobilization for the purpose, and networking, or strengthening existing networks of the institutions for sharing capacity, resources and infrastructure amongst the countries in Asia-Pacific region.



Sarath Fernando, Chairman of APAFRI, mentioned that APAFRI, since its establishment nearly 13 years ago, has been actively involved in many of the forestry activities in the region, and has been increasingly recognized as the regional representative in many international fora. Currently the association has more than 70 institutional and individual members; and most of the national forestry research institutions and many of the forestry agencies and forestry schools in countries of the Asia-Pacific region are members of APAFRI. APAFRI, by organizing events such as workshops and training courses to promote information exchange and sharing, and to build-up

capacities in key competencies among researchers and forestry professionals in the region, is contributing, and will continue to contribute, towards achieving the objectives of many regional and international initiatives, such as the United Nations' Millennium Development Goals.

The session was packed with brief presentations of representatives from Bhutan, India, Indonesia, Korea, Malaysia, Nepal, Sri Lanka, as well as from a number of sub-regional organizations. These were followed by intense discussions from the more than 50 participants that attended this half-day session.



## SEMINAR RATTAN & BAMBOO 2008

25 – 26 March 2008  
Kuala Lumpur, Malaysia

The Rattan and Bamboo Seminar 2008, themed “Towards a better policy in enhancing the rattan and bamboo industries” was held at the Seri Pacific Hotel, Kuala Lumpur, Malaysia. The two-day seminar was jointly organized by the Forest Research Institute Malaysia (FRIM) and the Ministry of Natural Resources and Environment (NRE), Government of Malaysia, with the support and collaboration of APAFRI. A total of 14 papers, on three themes: industry and policy, resource and production, and research and development, were presented in the seminar. The seminar attracted altogether 130 participants who are actively involved in activities related to rattan and bamboo from various public and private agencies, and industries. A number of participants from outside Malaysia including officials from the International Network of Bamboo and Rattan (INBAR), and the International Center for Bamboo and Rattan (ICBR), Beijing, China, also participated in this seminar. APAFRI supported the participation of two researchers: one from the Environment Research and Development Bureau (ERDB), Philippines; and the other one from the Forest Department of Sri Lanka.



# INTRODUCTION TO GLOBAL FOREST INFORMATION SERVICE (GFIS)

*Special session on IUFRO activities,*

**25 April 2008, Hanoi, Viet Nam**

The International Union of Forest Research Organizations (IUFRO) organized a full-day event during the recent Asia Pacific Forestry Week, 21–26 April 2008, in Hanoi, Viet Nam.

The third session of the IUFRO event – taking place in the afternoon – focused on the Global Forest Information Service (GFIS) and was moderated by Ho Sang Kang, GFIS Regional Coordinator for Asia and Russia. GFIS, an IUFRO-led initiative, provides the framework for sharing forest-related data and information through a single gateway.

The main objectives of this session were to introduce the GFIS concept, and also to demonstrate under real-world conditions how easy it is to create the necessary information feeds (RSS) and link them to the GFIS gateway at <http://www.gfis.net/>. A number of current information provider partners from the regions have been invited to share their experiences contributing and working with GFIS. Several new potential partners were also invited to discuss their expectations of global information sharing.

In the first presentation, Eero Mikkola, the GFIS Coordinator, introduced the participants to the latest GFIS internet gateway, as well as the status of partnership development with expert institutions from around the world (link to presentation). This was followed by short presentations by three existing GFIS partners: Research Center for Forest Ecology & Environment (RCFEE) Viet Nam; Asia Pacific Association of Forestry Research Institutions (APAFRI); and USDA Forest Service, on their experiences providing information to GFIS and using the system in their daily work. Some recommendations and plans for future development of GFIS were also discussed.

In a second block of presentations, potential GFIS partners in Asia – the Indonesian Ministry of Forestry; Indonesian Center for Education & Training (CFET); Myanmar Forest Research Institute, and World Resources Institute – informed the participants of their own information resources and how these are currently stored, managed and disseminated. They also elaborated on their expectations of GFIS when joining as GFIS partners.

In the final session, Mr. Randy D. McCracken, USDA Forest Service, demonstrated how a forest information news feed – based on “Really Simple Syndication” (RSS) – could be created and linked to the GFIS gateway. In this way, individual information resources could be located from anywhere in the world.

Overall, the participants showed great interest in GFIS and some of them expressed their interest to join as GFIS partners. The GFIS Coordination Unit, currently hosted by IUFRO Headquarters in Vienna, would establish contacts with these potential partners to finalize their links to GFIS and commence the exchanges of forest-related information resources.

A PowerPoint presentation was also shown by the Korea Forest Research Institute (KFRI) regarding the preparation and invitation to the 23rd IUFRO World Congress to be held in Seoul, Republic of Korea in 2010. A promotional video was presented showing the excellent meeting facilities of the congress in Seoul and the forested landscapes of Korea, which will be visited during the in-congress and post-congress excursions.

*(Adapted from a report from Eero Mikkola, Coordinator GFIS)*

# NATIONAL WORKSHOP ON FOREST GENETIC RESOURCES CONSERVATION AND MANAGEMENT IN MYANMAR

26 February 2008, Yezin, Myanmar

Myanmar possesses a diverse species of flora, and among them 11 800 species, 2 371 genera and 273 families have already been identified. These have been providing a wide range of goods and services for not only environmental protection but also commercial utilization. The major factors threatening the sustainability of the forest genetic resources of Myanmar include agricultural expansion, shifting cultivation, over-exploitation, urbanization and infrastructure development, forest fires and mining. Realizing these threats that endanger the forest biodiversity of Myanmar, a number of *in situ* and *ex situ* conservation measures have been implemented to conserve the forest genetic resources.

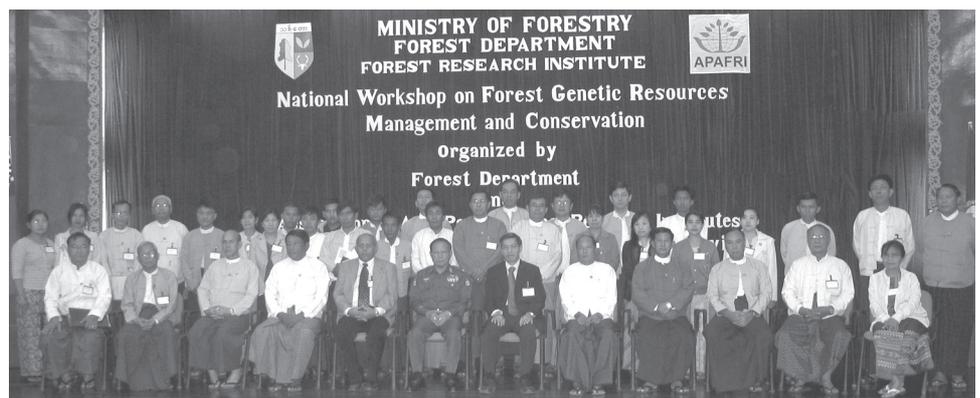
Although it is well recognized that the forest genetic resources conservation and management play a vital role in the environmental stability and ecological balance, the conservation endeavours needed for sustainable utilization and development of forest genetic resources are not adequate due to various constraints and limitations. In order to strengthen and promote the forest genetic resources conservation and management, the Forest Research Institute (FRI), Forest Department (FD) of Myanmar, has been conducting national-level activities on forest genetic resources conservation through participating in the ITTO Project PD199/03 Rev. 3(F): "Strengthening National Capacity and Regional Collaboration for Sustainable Use of Forest Genetic Resources in Tropical Asia" since 2006. The three-year project, implemented by the Forest Research Institute Malaysia (FRIM), in collaboration with the Bioversity International and the Asia Pacific Association of Forestry Research Institutions (APAFRI), has seven participating partners from Cambodia, India, Indonesia, Malaysia, Myanmar, Philippines and Thailand. FRI Myanmar has also been an active member in the Asia Pacific Forest Genetics Resources Programme (APFORGEN), which initiated this ITTO Project.

Under the guidance of the Forest Department (FD), the Forest Research Institute (FRI) of Myanmar, organized the National Consultative Workshop on Forest Genetic Resources on 26 February 2008. The objectives of this workshop were to review the status of forest genetic resources conservation in Myanmar, assess the capacity building needs in support of forest genetic resources conservation and management, and identify the stakeholders. This workshop was supported by the ITTO Project, and the Executive Director of APAFRI, who is the Project Coordinator, also attended this one-day workshop.

In addition to the above stated objectives, the workshop would also contribute to the ITTO project by:

- Identifying problems and other constraints in a national FGR programme.
- Recommending solutions or courses of actions to address FGR issue and concerns.
- Soliciting inputs in crafting a viable research and development national agenda for FGR conservation and management.
- Determining capacity building activities for a vibrant national FGR programme.
- Generating support and commitment from institutions and other stakeholders to implement programmes for FGR conservation development in their regions.

The workshop was attended by 25 participants from the various ministries, research agencies, academic sectors, and non-governmental organizations. The morning session has three presentations:



- a. An Overview of Forest Genetic Resources Conservation in Myanmar with Reference to International Context by Htun Paw Oo and Win Myint;
- b. Rationale for Germplasm Conservation of Medicinal Plants and Wild Relatives of Cultivated Species by Dr. Kyaw Kyaw Khaung; and
- c. Present Management of the Existing Teak Resources in Myanmar by Dr. Nyi Nyi Kyaw.

### **An Overview of Forest Genetic Resources Conservation in Myanmar with Reference to International Context**

The objectives and activities of Conservation of Biological Diversity (CBD) and some definitions used in forest genetics resources conservation and management activities were explained. These were followed by brief descriptions on activities related to the Global Strategy for Plant Conservation, the World Conservation Union (IUCN), the Convention on International Trade in Endangered Species (CITES), Food and Agriculture Organization (FAO), International Tropical Timber Organization (ITTO) and Forest Genetic Resources Conservation and Management Project (APFORGENMAP).

In the second portion of this presentation, the current situations of Myanmar's forest resources, forest conservation in Myanmar and the regulatory framework of forest conservation in Myanmar were further elaborated.

### **Rationale for Germplasm Conservation of Medicinal Plants and Wild Relatives of Cultivated Species**

This presentation explained in details the definitions, functions and utilizations of plant genetic resources. The presenter also covered genetic diversity, ecosystem and forest genetic resources including medicinal plant resources and wild relatives of cultivated species, as well as the systematic identifications of plant diversity using phenotypic and genotypic characters.

### **Present Management of the Existing Teak Resources in Myanmar**

The current status of teak (*Tectona grandis*) genetic conservation and improvement in Myanmar and the various activities/programmes, such as establishment of seed production area (SPA); clonal seed orchards (CSO) and hedge gardens; experimentation of tissue culture method and vegetative propagation method; reproductive biology of teak and nursery techniques

to achieve the superior genetic quality for teak genetic resources were presented in details. Other related topics such as forest policies, laws and regulations, and implementation departmental agency under the Ministry of Forestry such as Forest Research Institute (FRI), and Central Forestry Development Training Centre (CFDTC), and their activities; were also discussed by the presenter.

### **Group discussions**

In the afternoon, three workshop groups were organized to discuss the following issues:

- 1) Enabling Conditions for Forest Genetic Resources Conservation and Management;
- 2) *In Situ* Conservation for Forest Genetic Resources; and
- 3) *Ex Situ* Conservation for Forest Genetic Resources.

All groups also discussed the priority species for conservation in terms of their economic and ecological importance.

On the issues of **Enabling Conditions for Forest Genetic Resources Conservation and Management**, **Group 1** had produced the following recommendations:

- 1) To propose forest legislation that supports the conservation of forest genetic resources;
- 2) To develop adequate institutional support for the conservation of forest genetic resources;
- 3) To support adequately trained personnel to undertake forest genetic resources conservation activities;
- 4) To improve sectoral coordination in planning, monitoring, evaluation and feedback on forest genetic resources conservation among institutions;
- 5) To enhance information, education and communication materials on forest genetic resources;
- 6) To generate public awareness on the valuation and goals of forest genetic resources.

**Group 2** discussed the issues of ***In Situ* Conservation for Forest Genetic Resources** and recommended the followings:

- 1) Identification and design of conservation areas
  - (a) Conduct periodic forest inventory
  - (b) Select the target species – Commercial, and endangered species
  - (c) Phenology and morphonology
  - (d) Causes of depletion

- (e) Conservation stands in Reserved Forests & Protected Public Forests
  - 2) Management
    - (a) Protect conservation areas
    - (b) Retain seed trees
    - (c) Ecological assessment
    - (d) Appropriate silvicultural treatments
  - 3) Monitoring and Evaluation
    - (a) Establish permanent sample plots
    - (b) Use remote-sensing techniques and GIS
- b) Establish seed stands, seed orchards and genes banks
  - c) Undertaken provenance trails
  - d) Set up in vitro cryo-preservation facilities
  - e) Establish protocols for macropropagation of each of the timber species
  - f) Use of molecular genetic techniques
  - g) Use recombinant DNA techniques
  - h) Reproductive Biology
  - i) Design computerized database system
- 2) Monitoring and Evaluation
    - a) Use GIS to define the location of target species
    - b) Enhance knowledge in population of the target species

The issues of *Ex Situ Conservation for Forest Genetic Resources* were discussed by **Group 3** and the followings were recommended:

- 1) Selection of target species
  - a) Plant the target species in arboreta and botanical gardens

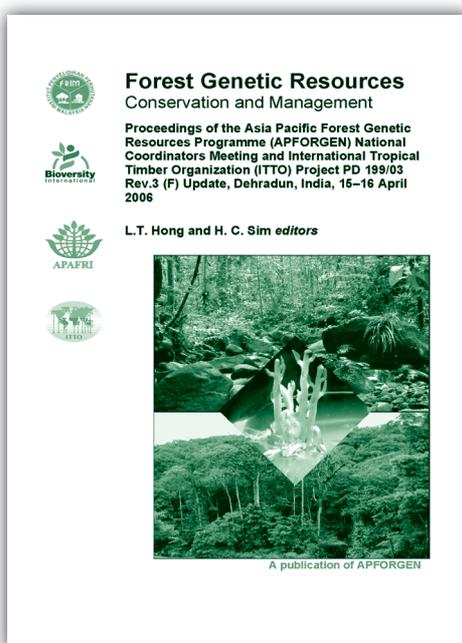
*(Adapted from the report by Lwin Ko Oo, National Focal Point (Myanmar) for the ITTO Forest Genetic Resources Project)*

# FOREST GENETIC RESOURCES CONSERVATION AND MANAGEMENT

**Proceedings of the Asia Pacific Forest Genetic Resources Programme (APFORGEN)  
National Coordinators Meeting and International Tropical Timber Organization (ITTO)  
Project PD 199/03 Rev.3 (F) Update, Dehradun, India, 15–16 April 2006**

The Asia Pacific Forest Genetic Resources Programme (APFORGEN) recently published a set of proceedings for the APFORGEN National Coordinators meeting, which was held as a side event of the Asia Pacific Forestry Commission 21st Session in Dehradun, India in April 2006.

This was the second full National Coordinators meeting since the Inception Workshop that was held in 2003 in Kuala Lumpur, Malaysia, which launched APFORGEN. The meeting has provided a means for participating countries to present an updated status of FGR conservation and management in addition to refining the draft APFORGEN action plan, which was derived after the inception meeting of 2003. The meeting was also convened as a forum for discussion and setting the scope for executing activities of the ITTO project PD199/03Rev. 3(F). The



National Focal Points from the seven participating countries for this ITTO project, who attended the meeting, were briefed on their roles and the activities of the project.

The country status papers of FGR conservation and management in this publication will serve as a valuable source of information for the region's forest managers and policy makers to draw upon in refining forest management practices to suit their national needs.

APFORGEN, initiated in 2003 is a regional programme with a holistic approach to conservation and management of forest genetic resources. Its aim is to enhance technical and scientific cooperation, training and information exchange among countries in the region. It is managed by the Asia Pacific Association of Forestry Research Institutions

(APAFRI) with technical support from Bioversity International (**Bioversity**). Target beneficiaries of this programme include forest research institutions, policy-makers, local communities, government forestry departments, NGOs and private forestry companies. Other international and regional organizations such as FAO are also participating in the development of the programme and its activities.

APFORGEN currently has fourteen participating country organizations from Bangladesh (*Bangladesh Forest Research Institute*), India (*Indian Council for Forestry Research and Education*), Nepal (*Department of Forest Research and Survey*), Pakistan (*Pakistan Forest Institute*), Sri Lanka (*Forest Department*), Cambodia (*Department of Forestry and Wildlife*), China (*Research Institute of Forestry, Chinese Academy of Forestry*), Indonesia (*Centre for Plantation Research and*

*Development, Bogor*), Lao PDR (*Forest Research Centre*), Malaysia (*Forest Research Institute Malaysia*), Myanmar (*Forest Research Institute, Yezin*), Philippines (*College of Forestry and Natural Resources, University of Philippines Los Banos*), Thailand (*Royal Forest Department/National Park, Wildlife and Plant Conservation Department*) and Viet Nam (*Forest Science Institute of Viet Nam*).

Currently, some activities of APFORGEN are partially supported by APAFRI and Bioversity. The bulk of the funding comes from the ITTO Project PD 199/03Rev. 3(F) which has duration of three years (2006–2009).

(Adapted from the Preface and Summary by the editors: Hong L. T. FGR Specialist and APFORGEN Facilitator, Bioversity-APO, Malaysia, and Sim H. C. Executive Director, APAFRI).

## UPCOMING EVENTS

### 11th International Wheat Genetics Symposium

Date : 24–29 August 2008  
Venue : Brisbane, Australia  
Contact Person: IWGS 2008 Secretariat  
PO Box 949  
KENT TOWN SA 5071  
AUSTRALIA  
Tel : 61 8 8363 1307  
Fax : 618 8363 1604  
Email : [iwgs@fcconventions.com.au](mailto:iwgs@fcconventions.com.au)  
Web : <http://www.fcconventions.com.au/IWGS/index.html>

### 14th Australian Agronomy Conference registration & general enquiries

Date : 21–25 September 2008  
Venue : Adelaide Convention Centre, South Australia  
Contact Person: Dr Murray Unkovich  
University of Adelaide  
Roseworthy SA 5371  
Email : [editor@agronomy.org.au](mailto:editor@agronomy.org.au)  
Tel : 61 8 8303 8104 or 08 8303 7827  
Fax : 61 8 8303 6717 or 08 8303 7979  
Web : <http://www.agronomy.org.au/events/2008/index.htm>

### IUCN World Conservation Congress: A Diverse and Sustainable World

Date : 5–14 October  
Venue : Barcelona, Spain  
Contact Person: IUCN World Conservation  
Congress Registration Office  
c/o JPdL  
1555 Peel Street, Suite 500  
Montréal, Québec, H3A 3L8  
Canada  
Tel : 1 514 287-9898 extension 248  
Fax : 1 514 287-1248  
Email : [iucn-wcc2008-registration@jpd.com](mailto:iucn-wcc2008-registration@jpd.com)  
Web : [www.iucn.org](http://www.iucn.org)

### Forty-fourth Session of the International Tropical Timber Council and Associated Sessions of the Committees

Date : 5–14 October 2008  
Venue : Yokohama, Japan  
Contact Person: ITTO Secretariat  
Tel : 81-45-223-1110  
Fax : 81-45-223-1111  
Email : [itto@itto.or.jp](mailto:itto@itto.or.jp)  
Web : [www.itto.or.jp](http://www.itto.or.jp)

### **Seminar on Medicinal and Aromatic Plants 2008**

Date : 21–22 October 2008  
Venue : Kuala Lumpur, Malaysia  
Exhibition Centre  
Contact Person: Secretariat  
Seminar on Medicinal and  
Aromatic Plants 2008  
Program Tumbuhan Ubatan,  
Institut Penyelidikan Perhutanan  
Malaysia (FRIM),  
52109 Kepong, Selangor,  
MALAYSIA  
Tel : 603-6279 7366 / 6279 7349  
Fax : 603-6272 9805  
Email : aadiana@frim.gov.my; saidatul@frim.  
gov.my  
Web : www.frim.gov.my

### **Ninth International Conference on Dryland Development: Sustainable Development in the Drylands – Meeting the Challenge of Global Climate Change**

Date : 7–10 November 2008  
Venue : Bibliotheca Alexandrina,  
Alexandria, Egypt  
Contact Person: Prof. Dr. Adel El-Beltagy,  
Chair of IDDC  
DDC/9th-IDDC\_FirstAnn.htm  
Email : Garon.Hallasby@ssko.slu.se  
Web : [http://ForestAdaptation2008.net/home/  
en](http://ForestAdaptation2008.net/home/en)

### **3rd Seminar on Forest Biotechnology 2008: “Strengthening in Forest Biotechnology”**

Date : 11–12 November 2008,  
Venue : Auditorium FRIM, Malaysia  
Contact Person: Dr. Wan Tarmeze Wan Ariffin  
Forest Research Institute  
Malaysia 52109 Kepong,  
Selangor, MALAYSIA  
Tel : 60-3-6279 7134  
Fax : 60-3-6280 4614

### **The FORTROP II International Conference: Tropical Forestry Change in a Changing World**

Date : 17–20 November 2008  
Venue : Kasetsart University, Bangkok,  
Thailand  
Contact Person: FORTROP II Secretariat;  
Faculty of Forestry, Kasetsart  
University, 50 Paholyothin Rd.  
Chatuchak Bangkok, Thailand  
Email : FORTROP 2008@ku.ac.th  
Web : [http://www.forest.ku.ac.th/  
FORTROP2008/main/index.php](http://www.forest.ku.ac.th/FORTROP2008/main/index.php)

### **ISSAAS International Congress 2008**

Date : 15–19 December 2008  
Venue : The Emerald Hotel,  
Ratchadapisek Road, Bangkok,  
Thailand  
Contact Person: The Secretariat (ISSAAS 08)  
Foreign Affair Division  
Kasetsart University, Kamphaeng  
Saen,  
Nakhon Pathom, Thailand 73140  
Email : issaas2008@ku.ac.th  
Web : [www.issaas2008.kps.ku.ac.th](http://www.issaas2008.kps.ku.ac.th)

### **International workshop on Promotion of Rubberwood Processing Technology in the Asia Pacific Region**

Date : 8–10 December 2008  
Venue : Hainan, Republic of China  
Contact Person: Dr Zhao Youke  
Research Institute of Wood Industry,  
Chinese Academy of Forestry, Wan  
Shou Shan,  
Beijing 100091, China  
Email : youke.zhao2hotmail.com or Kjc.mg@  
caf.ac.cn  
Tel : 86-10-6288-9407/9412  
Fax : 86-10-6288-1937  
Web : [http://www.paneltech.cn/rubberwood/  
workshop.htm](http://www.paneltech.cn/rubberwood/workshop.htm)



The APAFRI Newsletter is compiled by the Secretariat. Your comments, articles and / or suggestions are gratefully received.

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### **Financial Contributions:**

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- ❖ Bioversity International
- ❖ USDA (United States Department of Agriculture) Forest Services
- ❖ SPC (Secretariat of Pacific Community)

### **Contributions in kind:**

- ❖ Forest Research Institute Malaysia

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