

REPORT BY THE DEAN OF THE FACULTY OF SCIENCE, CHIANG MAI UNIVERSITY

Kittichai Watananigorn

The idea for this workshop arose out of the work of a small research unit in the Science Faculty, Department of Biology; the Forest Restoration Research Unit or FORRU for short. Since 1994, FORRU has been developing methods to restore natural forest ecosystems to degraded sites within conservation areas in northern Thailand, where the primary management objective is wildlife conservation. After more than 5 years research, the staff of FORRU felt that it was time to provide a forum for other researchers carrying out similar work in Southeast Asia to meet together and share experiences; to learn from each other's successes and avoid repeating each other's failures. The workshop on Forest Restoration for Wildlife Conservation was designed to provide just such an opportunity.

The workshop concentrated on the scientific and technical aspects of restoring Southeast Asia's tropical forests, with the focus primarily on biodiversity conservation. It had the very specific goal of preparing a scientific research agenda for the restoration of Southeast Asia's degraded forest ecosystems, focussing on the seasonally dry forests that are characteristic of northern Thailand and neighbouring countries. Experts involved in restoring forest ecosystems in Southeast Asia, had the difficult task of reaching a consensus on what are the most important or urgent areas for further research in this field. The research agenda, they drafted, will help to guide the future research efforts of scientists and forest managers and help to persuade funding agencies to provide more financial support to this vital area of research. The second objective of the meeting was to establish a network of people, concerned with restoring forests for wildlife conservation, so that the exchange of information begun at this workshop can continue into the future.

The organizing committee of the workshop worked tirelessly for almost a year to raise funds for this meeting and implement it successfully. The workshop was made possible through generous funding by three member countries of the International Tropical Timber Organization (ITTO): namely Japan, Australia and the United States of America. We are deeply grateful to ITTO and to the governments of those member countries. We thank The International Union of Forest Research Organizations, for supporting participants coming from developed countries and the British Council for supporting two British participants. We are also grateful to The Biodiversity Research and Training Program, an initiative of the Government of Thailand, for funding some of the field trip expenses. Shell Forestry Limited and The Science Faculty of Chiang Mai University provided additional financial and institutional support. Last but not least we thank the Headquarters of Doi Suthep-Pui National Park, under the Royal Forest Department for hosting FORRU and its various activities since 1994.

OPENING DECLARATION BY CHIANG MAI UNIVERSITY VICE PRESIDENT FOR PLANNING AND DEVELOPMENTAL AFFAIRS

Sampan Srisuwan

Distinguished guests, ladies, and gentlemen: I am honored to welcome you to Chiang Mai and officiate at the opening of this regional workshop of forest restoration for wildlife conservation. We welcome delegates from 16 countries (in alphabetical order): Australia, Bangladesh, Canada, Denmark, China, Germany, India, Indonesia, Japan, Malaysia, Myanmar, The Philippines, Thailand, United Kingdom, United States of America and Vietnam. Chiang Mai welcomes all of you.

We are glad that there is widespread interest in the problem of diminishing forests. We are glad that experts from so many countries can get together and share ideas. Our future depends on preserving biological diversity. You can help us. The problem at hand belongs to the general category of management. We can do many different things well, but we do not manage the environment well. The environment is often exploited for short-term individual interests, rather than for long-term community interests.

The early European settlers of North America tried to set up perfect societies. They set aside land where anyone could graze their animals. These lands were held in common. But did *not* have managers. There was nobody to say that the commons were full. In the absence of strong management, the commons were over-grazed and failed. This happened thousands of times. It was and is always advantageous to the individual farmer to graze one more cow even if the community suffers. Even though the last animal did not get enough, it got something. Similarly, it is always advantageous to the individual lumber company to cut down one more tree, even if it is bad for the community. Cutting trees may have ruinous consequences for biological diversity but for the timber baron, it is always advantageous to cut one more tree. The forest is a kind of common that *requires* effective management to survive.

Over-regulation, however, is unproductive. For example, the regulated economy turns out to be less efficient than the market economy. For the economy, less regulation is better. However, the environment *always* needs to be regulated. The confusion over regulation of the environment (good) and regulation of the economy (bad) is unfortunate.

Let me tell you about our experience in Thailand. Several years ago senior Government officials were concerned about the loss of forests. The Cabinet passed a resolution that all forests be closed to commercial logging. The price of lumber went up and logging therefore *increased*. This true story shows that we do not know how to close the forest. The important unsolved problems concern *management*, rather than biology. Management of forests is not well understood.

Can we identify instances of successful forest management? Perhaps polling the participants of this workshop would provide an answer to this question. It may be that the conditions for success of forest management have more to do with the salary

structure of the civil service than with the botany of forest plants. My guess is that it is not possible to enforce any regulations if the regulator is not paid a living wage.

This workshop should consider the role of education in preserving forests. It may be that education is the best and only real solution to the long-term problem.

Can this workshop identify regulations that are useful and can be enforced? Participants should share information about what works. We want to recommend more research if we need information that is not available, but we should focus our resources on preserving the forest. Monocultures of economically important trees will *not* improve biological diversity, but maybe other plants can be encouraged to grow at the same time. The advice of this workshop is urgently needed. We are looking to you for new ideas. I hope that this workshop produces realistic and useful recommendations.

We in Thailand are fortunate to have a King who loves the forest and promotes the right kind of policies for protecting the forests that remain and restoring the forests that have been lost.

It is my pleasure to declare this workshop open.

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**STATEMENT BY THE REPRESENTATIVE OF THE
INTERNATIONAL TROPICAL TIMBER ORGANIZATION
(ITTO)**

Dr. Efransjah¹

Mr. Vice President of the Chiang Mai University,
Mr. Dean of Faculty of Sciences,
Distinguished participants, Ladies and Gentlemen...

It is indeed my pleasure to come back to the beautiful city of Chiang Mai after successfully concluding the International Tropical Timber Council Sessions held here, last May 1999. This workshop was approved and funded by the ITTC during the Chiang Mai Session of the Council. Allow me to bring to this distinguished gathering, greetings from the Executive Director of ITTO, Dr. Manoel Sobral Filho. He sends his sincere wishes to all of you for the success of this workshop. We are deeply honored to extend a warm welcome to dignitaries from the Royal Thai Forest Department and other Government Agencies who have found time to be with us and contribute in our deliberations.

For those who are not familiar with ITTO, I would like to briefly highlight that ITTO is an intergovernmental organization created under the auspices of the United

¹ Dr. Efransjah is Project Manager, managing ITTO-financed projects on reforestation and forest management in the Asia and Pacific region.

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Nations Conference on Trade and Development (UNCTAD) with the mandate of ensuring the implementation of the International Tropical Timber Agreement, being the only convention now in existence on forests. The ITTO is headquartered in Yokohama, Japan and at present ITTO has 54 members of producing and consuming countries including the European Union, which together represent 95 percent of the world trade in tropical timber and 75 percent of the world's tropical forests.

The principal objective of the International Tropical Timber Agreement is to offer a forum for cooperation and policy dialogue between countries that produce and countries that consume tropical timber, in order to encourage expansion and diversification of the international tropical timber trade, to improve forest management and sustainable use of tropical forests. Unequivocally entrenched in the International Tropical Timber Agreement, the ITTO is mandated to strike a balance between the rational utilisation of tropical forest resources and their secure resource base through conservation and sustainable management. For those of you wishing to find out more about ITTO, I would refer you to ITTO's home page web site at <http://www.itto.or.jp/>

Our Workshop attempts to address forest restoration and wildlife conservation and it has identified two broad constraints as reflected in the background paper. They are: inadequate social and institutional mechanisms and a lack of scientific knowledge and technical expertise. We are delighted to learn that an array of credible speakers and experts from various disciplines and institutions are gathered here to contribute meaningfully to the discussions at this workshop. The issues and the real challenges facing us are on the ground. They cannot be solved by organizations or in laboratories, journals or in meetings and conferences, no matter how good these may be. Those who work in the forest and those who live in and around the forests, ultimately have a vital role to play. Through incentives and other appropriate measures, let us therefore also secure the co-operation of local communities who are close to and dependent on forest resources for their livelihoods. Equally, the network of institutional infrastructure in various agencies in many countries in the region must be mobilised more effectively to enable better forest restoration and rehabilitation. Although all strategic information could be analysed in this important meeting, and it should not be neglected, we should not forget the human resources on the ground.

Touching upon the technical aspect, I wish to share with you some of ITTO's supported projects at the field level. In the Philippines, starting in 1995, ITTO and the Forest Management Bureau initiated an experimental demonstration area, where twenty different methods of plantation establishment, consisting of a combination of nursery techniques, soil fertilisation regimes and land preparation methods were tested in the field. This project was implemented in marginal grasslands in Bayombong, Nueva Viscaya, Philippines. After three-years of consistent measurements, a follow-up project which expanded the experimental plantations to 1500 hectares, based on the most successful treatments, also gained ITTO support. Equally important, during the course of implementation of this project, significant gains were attained by securing the support and a positive relationship between the project and the local populations living in, or adjacent to the forestry project area. Before implementing the project, the area was regularly burned, either to open up patches of land for shifting cultivation by local people, or to provide fresh forage for cattle. This resulted in the inability of forest

regeneration to take hold and develop. The project now continues to progress, involving the local government and support from a Japanese chain of department stores, Ito Yokado. The lessons learnt in this project may be used to address the two constraints identified by the Workshop.

In 1993, ITTO started to support implementation of a project in Hainan Island, China aimed at establishing a demonstration area of 2000 hectares for afforestation of the tropical region of China. This project uses advanced technology involving a modern nursery producing 3 million trees per year and the establishment of a 800 hectares plantation for demonstration purposes. The project, equipped with a training centre, remains the largest ITTO's demonstration plantation in the region.

In 1989, ITTO launched an initiative to identify different ways of rehabilitating forests that had been affected by the fires that struck East Kalimantan during 1983-1985. In 1992, a project to establish a demonstration plot for restoration of forests affected by fire was implemented in East Kalimantan, Indonesia. The project aimed to develop a methodology to rehabilitate forest damaged by fire, study natural succession, and establish a demonstration area for research and training purposes. Although upon its completion the area was devastated again by fire, the project has generated valuable information, which includes:

- **detailed experimental design** of forest inventory for areas affected by fire and related classification of degree of degradation of burned over forests
- **technical guidelines** on proposed silvicultural options for rehabilitating forests devastated by fire depending upon the degree of forest degradation
- **detailed data recorded** on growth and yield of the stands after various silvicultural treatments
- **systematic analysis** of volumes and distribution of natural and planted species in the forest areas affected by fire.

In Thailand, ITTO also supported the Thailand Environment Institute (TEI) in developing a buffer zone concept attempting to reduce pressure on wildlife sanctuaries by introducing community approaches in the rural areas adjacent to the natural forest reserves.

These are some of the relevant experiences of ITTO's work on the subjects to be discussed in this workshop and which I am willing to share with you.

Let me take the opportunity to inform you that ITTO, in collaboration with the Department of the Environment and Natural Resources of the Philippines, will convene at the International Conference on Timber Plantations" in Manila, by the end of this year.

In connection with forest restoration, wildlife conservation is another key element to be discussed during this Workshop. We understand that the issue is an integral part of conservation of flora and fauna and ecosystems under the Convention on Biodiversity. As you may be aware, at the policy level, based on a productive dialogue among 54 ITTO Member Countries, ITTO has adopted several guidelines relevant to the issues of forest restoration and wildlife conservation. They are:

- ITTO Guidelines for the Conservation of Biological Diversity in Tropical Production Forest (1993)
- ITTO Guidelines for the Establishment and Sustainable Management of Planted Tropical Forest (1993)
- ITTO Guidelines on Fire Management in Tropical Forests (1997)

We are also at the final stage of finalising an important publication entitled: “State-of-the-art Review on Conservation of Forest Tree Species” and “Technical Guidelines for the Establishment and Management of *in-situ* and *ex-situ* Conservation Stands of Selected Species” prepared by Regional Institute of Forest Management based in FRIM, Malaysia. These publications are expected to be available by June, this year.

This Workshop has set the production of a “research agenda” as its focal target. At the international level, it has been clearly identified that there are some inadequacies in existing systems for mobilising resources, setting priorities and achieving coherence for forest research, as discussed at the Intergovernmental Forum on Forests (IFF). There is a strong call for financial and technical assistance programmes as well as examination of new ways of mobilising funding for forest research. In this regard, I wish to share with you ITTO’s potential involvement. Projects are an important aspect of the Organization’s work and a primary means of assisting member countries to implement policy initiatives. Members may submit project proposals to the Council for approval and financing if found to be consistent with an agreed project cycle. Examples include pilot and demonstration projects, human resource development projects, and research and development projects. All projects are funded by voluntary contributions from member countries. Since it became operational in 1987, the ITTO has funded nearly 400 projects at a total cost of approximately US\$200 million. A special funding mechanism, called the Bali Partnership Fund, has also been established to provide ITTO’s producer member countries with assistance through international co-operation. As may be expected, enhanced levels of such co-operation and assistance will be needed if sufficient resources are to be made available.

The ITTO offers its hand of partnership and co-operation to work together with all relevant organizations to promote the conservation, management and sustainable development of tropical forests. It is within these perspectives that the existing opportunities and challenges of tropical forests should be examined. I am therefore most delighted to see many friends at this meeting, with whom ITTO has been working closely.

Let me now conclude my remarks by paying tribute to our host, FORRU of Faculty of Science, Chiang Mai University under whose patronage this initiative is being implemented with the support of ITTO and other sponsors., such as the British Council and the Shell Forestry Limited. I wish also to extend my appreciation to the dedicated experts and staff of the project led by co-directors, Dr. Vilaiwan Anusarnsunthorn and Dr. Steve Elliott. At this juncture, I should not fail to acknowledge with the deep gratitude the collaboration and support demonstrated here by other national and international agencies and our close partners including FAO and IUFRO to attain the objective of this Workshop.

It is on this note that I wish to conclude, and to thank you for your kind indulgence.