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REGIONAL CONFERENCE ON "BIODIVERSITY CONSERVATION IN TROPICAL FORESTS OF THE GREATER MEKONG SUB-REGION"

Forests for People, Productive Landscape and Sustainable Development



Siem Reap, Cambodia 23-25 March 2016

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Foreword and Acknowledgments

This regional conference on "Biodiversity Conservation in Tropical Forests of the Greater Mekong Sub-Region was organized by the Cambodia Project Component of ITTO project PD 577/10 Rev. 1 (F) - "Management of the Emerald Triangle Protected Forests Complex to Promote Cooperation for Trans-boundary Biodiversity Conservation between Thailand, Cambodia and Laos (Phase III)." There were more than 100 participants in the regional conference originating from government organizations, academic institutions, and international and national development partners throughout the Mekong Sub-region and elsewhere throughout South and Southeast Asia. The presentations and discussions during the conference of critical issues affecting biodiversity conservation resulted in a number of important conclusions and messages to strengthen biodiversity conservation.

The organizers of the regional conference acknowledge with much appreciation the technical and administrative support that has been provided through the ITTO through each of the three phases of this project and in organizing this regional conference. The Cambodia Project Component of the project is also very pleased to recognize the technical and financial contributions of, especially, the Japanese government, the Japanese International Cooperation Agency (JICA), and the people of Japan - as well as the governments and people of Switzerland and the United States, as well as the Convention on Biodiversity Conservation - for the support which they have provided to the project in its various stages of implementation, as well as in the organization of this regional conference.

The contributions of Dr. Ma Hwan-Ok, ITTO Projects Manager; Mr. Hiroshi Nakata, Advisor to the Head of the Cambodia Forestry Administration; Dr. Chheng Kimsun, Delegate of the Royal Government, in charge as Head of the Cambodia Forestry Administration; the Forestry Administration of Cambodia and the Royal Forest Department of Thailand; as well as the speakers and participants at this regional conference, each of whom contributed to the assessment of the critical challenges that affect biodiversity conservation and to the success of this regional conference, are also appreciatively acknowledged.

EXECUTIVE SUMMARY

The Forestry Administration, as the Executing Agency of the Cambodia Project Component of ITTO Project PD 577/10 Rev. 1 (F) - "Management of the Emerald Triangle Protected Forests Complex to Promote Cooperation for Trans-boundary Biodiversity Conservation between Thailand, Cambodia and Laos (Phase III)" – organized this regional conference on 'Biodiversity Conservation in Tropical Forests of the Greater Mekong Sub-region.' The regional conference was intended to extend the understanding of the principles of sustainable management that have been embedded into both the development objective of the current phase of the organizing ITTO trans-boundary biodiversity conservation project, which is to conserve trans-boundary biodiversity in the Protected Forests Complex situated in the cross-border areas of Thailand, Cambodia and Lao PDR, as well as its specific objective, which is to strengthen the protection of trans-boundary habitats of protected wide-ranging wildlife species in those cross-border areas.

The efforts to increase the incomes and improve the livelihoods of local communities to decrease dependence on the unsustainable use of forests and forest resources has become one of the most common approaches to use in efforts to conserve biodiversity in the countries of the Greater Mekong Sub-region.

The richness of the region's endowment of biodiversity, which is, indeed, considerable, is represented through the designation of several recognized biodiversity hotspots. Since the adoption of the UN Convention on Biological Diversity (CBD) in 1992, efforts throughout the region have accelerated to conserve biodiversity through the establishment of national 'Biodiversity Strategy and Action Plans,' as well as by means of the adoption of several other national, regional, and international initiatives.

The broadening of protected areas management provides a related approach that has been used to increase biodiversity conservation in the region. Its initial application within the context of a more exclusive approach that restrained human interventions in management resulted in significant negative impacts on the livelihoods of local communities, which increased conflicts and reinforced negative perceptions regarding conservation and ultimately undermined the interests of local communities in providing support for biodiversity conservation. The approach has since evolved, however, into one that now encourages the participation of local people in conservation efforts and the incorporation of livelihood concerns into protected area management plans and programs. There are remaining challenges that will still have to be addressed, however, in the pursuit of effective integrated approaches that strengthen biodiversity conservation while enhancing local livelihoods.

In those protected areas, in particular, that straddle two or more countries or other overlapping administrative units, illegal logging and the illegal trade of wild animals and plants are of particular concern to management. Irrespective of the integrity of natural ecological units that stretch across national boundaries, divergent policies, laws and institutional arrangements often undermine their management as components of coherent, integrated landscapes.

Despite ongoing national and international efforts to implement sustainable forest management, deforestation and forest degradation continue to be critical concerns that result in the erosion of natural capital, increase losses of biodiversity, and affect the flows of goods and services and regulation of environmental functions.

There were intensive discussions during the regional conference concerning these, as well as

other, matters in accordance with the planned conference program. The principal conclusions and messages of the conference included the following:

- Sound land use policy and security of tenure of gazetted forests are crucial for achieving biodiversity conservation and sustainable forest management objectives. Conservation forests, protection forests, and production forests must be set aside to ensure biodiversity conservation at different scales in forest landscapes.
- Mainstreaming biodiversity in the tropical forest sector is facilitated by means of national biodiversity strategies, action plans, and targets aimed at achieving the forest-related Aichi Biodiversity Targets. The conservation and sustainable use of biodiversity in tropical forests must be supported with political commitments, policies and laws based on national strategies, and short-, medium-, and long-term targets for establishing and achieving biodiversity conservation and sustainable use goals.
- Strengthening sustainable forest management in conservation, protection and production forests is crucial for maintaining ecosystem functions at the landscape and stand scales, especially considering the essential role of biodiversity in ecosystem functioning.
- Conservation benefits communities, but efforts must be sustained and must lead to selfreliance. Poverty may be alleviated through integrated forest biodiversity conservation and development activities that consider livelihood improvement to be a high priority concern in protected areas. The participation of stakeholders and, in particular, local communities, is a necessary component of ensuring the longevity of those on-going activities.
- Strengthening forest law enforcement and good governance in protected forests is an urgent consideration.
- Trans-boundary biodiversity conservation areas promote regional cooperation and recognize conservation as a shared responsibility. Enabling large contiguous forest areas for conservation is of critical importance amid disappearing tropical forests.
- Capacity building in tropical countries is the most critical required element to fully achieve biodiversity conservation and sustainable forest management in the context of Sustainable Development Goal 15 of the 2030 Agenda for Sustainable Development ("sustainably manage forests, combat desertification, and halt and reverse land degradation and biodiversity loss.").

Each of the PowerPoint presentations that was delivered at the Regional Conference is available on the ITTO website at <u>http://www.itto.int/news_releases/id=4775</u>.

OBJECTIVES

It is in the context of these, as well as other related challenges that the Cambodia Forestry Administration, through the ITTO trans-boundary biodiversity conservation project, organized this regional conference. Its objectives were to:

• Assess the effectiveness of national, regional, and international approaches to conserve biological diversity throughout the region.

- Review the enabling environment (i.e., policy, legislative and institutional framework) that supports the establishment of effective linkages between improvements in community livelihoods and the strengthening of biodiversity conservation and reductions in community dependence on the unsustainable use of forest resources.
- Distinguish the principal constraints that impede efforts to reduce illegal logging and the illegal trade of wild animals and plants in the region and evaluate the applications of international conventions such as CITES and CBD to limit the impacts of those constraints.

There were 108 participants in attendance at the Regional Conference. Those participants included officials from the Greater Mekong Sub-Region countries, including from the Cambodia Forestry Administration; Cambodia General Department of Administration of Nature Conservation and Protection (GDANCP); Vietnam Administration of Forestry; Thailand Royal Forest Department; and Myanmar Forest Department of the Ministry of Environmental Conservation and Forestry. Participants also included lecturers and students from the Royal University of Agriculture and the Prek Leap National School of Agriculture in Cambodia; the Asian Institute of Technology and Kasetsart University in Thailand; Champasack University in Lao PDR; and the Yunnan Academy of Forestry in China; as well as representatives from the United Nations Environment Programme - International Ecosystem Management Partnership (UNEP-IEMP) in China; the Asian Development Bank (ADB); the Royal Thailand Embassy in Cambodia; the USAID Regional Office and U.S. Embassy in Thailand; the Secretariat of the Convention on Biological Diversity; the Secretariat of the International Partnership for the Satoyama Initiative; and other development partners and conservations organizations, including JICA, ITTO, and the Wildlife Conservation Society (WCS).

The regional conference repeatedly recognized that Forests and Forest Biodiversity resources contribute to every aspect of efforts to achieve sustainable development, especially those with regard to:

- **Livelihoods, employment and poverty alleviation,** through which the use of forest resources contributes to the enhancement of local livelihoods and the alleviation of rural poverty.
- **Food security,** through which forest resources satisfy important requirements of the most vulnerable of the rural poor, particularly during periods of crisis.
- Nutrition and Health, through which forests provide local communities with access to a_wide range of nutritious foods and medicinal plants.
- **Education,** through which forests represent a living laboratory that supports environmental education and encourages conservation.
- **Gender Equality,** through which access to and control over forest resources has become a critical concern associated with the empowerment of women and the achievement of gender equality.
- Water, through which forests assume a critical role in the water cycle and the protection of water resources.
- **Energy,** through which forests provide or support the provision of diverse sources of renewable energy that range from wood and charcoal to the generation of hydroelectricity.
- **Economic Growth**, through which forest products contribute to the growth of the country's revenue, international trade, and investment streams.

- **Infrastructure**, through which forests provide essential materials for the development of infrastructure, most significantly housing.
- **Equality and Inclusiveness,** through which the expansion of the collective ownership of forests provides increasing access and rights to marginalized communities.
- **Sustainable Production,** through which forest ecosystem services, especially the regulation of water in forest watersheds, support the sustainable production of agriculture.
- **Climate Change,** through which forests curb the release of greenhouse gases into the atmosphere and maintain ecological structures that are most suitable to adapt to climate change.
- **Terrestrial ecosystems and biodiversity,** through which forests are essential to the maintenance of the country's endowment of terrestrial biodiversity.

The regional conference reaffirmed, as well, that the loss of forest biodiversity resources and the impairment of forest functions not only has negative consequences on sustainable development, but that actions to reduce pressures on forest resources also support a broad range of social benefits. It also confirmed that the sustainable utilization of forest biodiversity resources requires the implementation of actions that encompass appropriate legal and policy frameworks, socio-economic incentives such as those to enhance rural livelihoods aligned to those frameworks, broad stakeholder engagement, effective monitoring and enforcement, and international cooperation and cross border coordination. The coherence of policies and legislation across sectors and corresponding government ministries and agencies, as well as cross-border and international cooperation, are essential in developing effective actions. Technical and financial support are also essential to implement those actions to support the sustainable utilization of forest resources and biodiversity, especially with regard to integrated forest ecosystem restoration programs, the expansion of the number of agricultural growing seasons and increased productivities of agroforestry practices among forest-dependent communities, and commodity and energy prices that reflect increasing access to low carbon technologies and renewable energy sources more affordable to the rural poor.

Regional Conference on Biodiversity Conservation in Tropical Forests of the Greater Mekong Sub-region

Angkor Paradise Hotel, Siem Reap, Cambodia, 23-25 March 2016

	Program	Speaker
Wednesday, 2	23 March	
8:30-9:30	Registration	
9:30-11:00	Opening ceremony	Moderator: Cambodia Forestry
		Administration (FA)
	• Welcoming remarks by H.E. Dr. Chneng	Delegate of the Royal Government of
	Kimsun	Cambodia, Head of the FA
	Domonika ku U.E. Ma Drotok	Minister Counsellor, Royal Thailand
	• Remarks by H.E. MIT. Flatak	Embassy, Phnom Penn
	Sikkilamonton	ITTO Secretariat
	 Congratulatory remarks by Mr. Takashi 	Constantial Coloradi Constantia
	Goto	Secretariat Scientific Advisor Convention
	000	on Biological Diversity (CBD)
	• Congratulatory remarks by Dr Jan	
	Thompson	
	Group photo and coffee break	
11:00-11:20	Introduction to the conference program	Cambodia FA
11:20-11:50	Keynote speech:	Moderator: Dr. Hwan-ok Ma, ITTO
	Biodiversity Conservation: Overview of Issues	Dr. Ian Thompson, CBD
11:50-12:20	Keynote speech:	Mr. Kim Nong, Deputy Director General
	Cambodia National Biodiversity Action Plan	Department of Administration of Nature
		Conservation and Protection (GDANCP),
10 00 11 00		Ministry of Environment
12:20-14:00	Lunch	
14:00-15:30	Session 1: Country Presentations – Part I	Moderator: Mr. Hiroshi Nakata, TA-
		DG/FA Mr. Kusan Sain Win Tun
	Myanmar-Country Presentation	Mr. Kyaw Sein win Tun
	Thailand-Country Presentation	Mr. Sapol Boonsermsuk
	j	Mr. Nouser Vo. Link
	Vietnam-Country Presentation	Mr. Nguyen vu Linn
	Discussion and Q & A	
15:30-16:00	Coffee/Tea break	
16:00 17:30	Soggion 2. Country Progentations Part II	Moderator: Mr. Watery Suzuki
10.00-17.50	Session 2. Country r resentations – r art n	Satoyama Secretariat UNU
	Cambodia-Country Presentation	Mr. Chheang Dany
	• Lao PDR Country Presentation	Mr. Bounthavy Vongkhamchanh
	Discussion and Q & A	
18:30-21:00	Dinner	
Thursday, 24	4 March	

Final Program

	Program	Speaker
8:30-10:00	Session 3: Lessons from the Emerald Triangle and the Heart of Borneo Trans-boundary Biodiversity Conservation Projects	Moderator: Dr. Phonesavanh Thepphasoulinthone, Vice Rector, Champasack University, Lao PDR
	China-Country Presentation	Professor Dr. Zhang Jingfeng
	• Management of Trans-boundary Protected Areas in the Emerald Triangle between Thailand, Cambodia, and Lao PDR	ITTO Trans-boundary biodiversity conservation project (Dr. Dennis J. Cengel (Cambodia) and Mr. Kamol Wisupakan (Thailand))
	• Wildlife Habitats and Land use Modeling: An example from the Emerald Triangle Protected Forests Complex	Professor Yongyut Trisurat & Professor Naris Bumphakphan (Kasetsart University, Thailand)
	Transboundary biodiversity conservation cooperation in Sarawak, Malaysia	Dr. Paul Chai, Malaysia
	 Transboundary Biodiversity Conservation Involving Forestry Communities and Women at Betung Kerihun National Park (BKNP) in Kalimantan, Indonesia 	Ms. Yani Septiani, Indonesia
10.00-10.30	Coffee/Tea break	
10:30-12:30	Session 4: Natural Resource Conservation	Moderator: Dr. Paul Chai.
	Program in the Greater Mekong Sub-region	Malaysia
	• JICA Cooperation for Nature Conservation	Mr. Hiroshi Nakata, Advisor to the Head of the Cambodia Forestry Administration
	USAID - Natural Resource Conservation Program in the Lower Mekong	Ms. Tahra Vose, Regional Environmental Specialist, US Embassy, Bangkok, Thailand
	• South-South Capacity Building for Ecosystem Management in the Greater Mekong Sub-region (GMS): Lessons learnt via consultative meeting in Pha Taem National Park, Thailand	Dr. Loo Min Jet, UNEP-IEMP
	 Biodiversity Corridor Conservation Projects and Natural Resource Conservation Program in the GMS Discussion and Q & A 	Mr. Teo Dang Do, Biodiversity Landscapes & Livelihoods Coordinator, ADB GMS-EOC
12:30-13:30	Lunch	
13:30-15:00	Session 5: International and regional	Moderator: Professor Yongvut Trisurat
15.50 15.00	biodiversity conservation cooperation	Kasetsart University, Thailand
	• The Satoyama Initiative: Conserving Biodiversity through Sustainable Management of Production Landscapes	Mr. Wataru Suzuki, Satoyama Secretariat, UNU
	Balancing Land Development and	

	Program	Speaker
	Biodiversity Conservation through	Associate Professor Nophea Sasaki,
	Biodiversity Offsetting Program	Asian Institute of Technology (AIT)
	 Strategic Environmental Impact Assessment: A Tool to Support Sustainable Development Discussion and Q & A 	Mr. Kim Sobon, Project Site Manager, Forest land Use Planning Specialist, ITTO PD577/10 Rev.1 (F).
15:00-15:30	Coffee/Tea break	
15:30-17:00	Session 6: Panel Discussion - The Way	Moderator: Dr. Hwan-ok Ma, ITTO
	Forward	
	 Panel members: Mr. Chheang Dany FA representative Mr. Hiroshi Nakata, TA-DG/FA Dr. Ian Thompson, CBD Mr. Wataru Suzuki, Satoyama Secretariat, UNU Professor Dr. Yongyut Trisurat, Kasetsart University, Thailand Mr. Teo Dang Do, ADB GMS-EOC Ms. Yani Septiani, Indonesia 	
17:00-20:00	Closing Ceremony and Dinner	

Friday, 25 March

Field trip schedule

Time	Program	Remark
7:00-7:15	Departure from Angkor Paradise Hotel	
8:30-11:30	Field visit to Dalbergia cochinchinensis seed source	
	area and forest landscape restoration sites.	
11:30-13:00	Lunch	
13:00-17:00	Travel to Angkor Wat, Bayon & Other Ancient Temples	
17:00-18:00	Return to Angkor Paradise Hotel	
18:30-20:00	Dinner	

Opening Speech and Opening Remarks



Honorable Guests and Chairman of the Regional Conference

Opening Speech by H.E. Dr. Chheng Kimsun, Delegate of the Royal Government, in charge as Head of the Forestry Administration, Cambodia



H.E. Dr. Chheng Kimsun, Delegate of the Royal Government, in charge as Head of the Forestry Administration, Cambodia, welcomed each of the distinguished guests and participants to the Regional Conference on 'Biodiversity Conservation in Tropical Forests of the Greater Mekong Sub-region' organized under the Cambodian Forestry Administration-ITTO project on the "Management of the Emerald Triangle Protected Forests Complex to Promote Cooperation for Trans-boundary Biodiversity Conservation between Thailand, Cambodia and Laos (Phase III)." He indicated that the conference had been organized so that there would be considerable opportunity for the participants to discuss the collection of biodiversity conservation

interventions that have been applied across the forest landscapes of the Greater Mekong Subregion. Those discussions would occur within the framework of the specific objectives of the conference, which were to:

Assess the effectiveness of national, regional, and international approaches to conserve biological diversity throughout the region.

Review the enabling environment (i.e., policy, legislative and institutional framework) that supports the establishment of effective linkages between improvements in community livelihoods and the strengthening of biodiversity conservation and reductions in community dependence on the unsustainable use of forest resources.

Distinguish the principal constraints that impede efforts to reduce illegal logging and the illegal trade of wild animals and plants in the region and evaluate the applications of international conventions such as CITES and CBD to limit the impacts of those constraints.

The 5th legislature of the National Assembly (2013-2018) of the Royal Government of Cambodia is establishing natural resource management policies associated, especially, with the sustainable management of the country's natural "forests." Those reform measures have centered on strengthening sustainable environmental protection and natural forest resources management on the basis of three supporting pillars - Sustainable Forest Management Policy; Natural Resource and Biodiversity Protection; and Community Forestry Development Promotion. The measures accentuate the significance of the role that this regional conference would assume in its discussions of the importance of biodiversity resources in supporting sustainable economic growth and contributing to rural poverty reduction. Indeed, terrestrial and aquatic ecosystem biodiversity throughout the region contributes to every aspect of efforts to achieve sustainable economic growth and development, especially with regard to the consideration of: Livelihoods, Employment and Poverty Alleviation, Food Security, Nutrition and Health, Education, Gender Equality, Water, Energy, Infrastructure, Equality and Inclusiveness, Sustainable Production, and Climate Change.

The sustainable utilization of biodiversity resources, however, is not an automatic occurrence. It requires the implementation of actions that encompass appropriate legal and policy frameworks, socioeconomic incentives such as those to enhance rural livelihoods aligned to those frameworks, broad stakeholder engagement and effective monitoring and enforcement. It also requires the coherence of policies and legislation across sectors and corresponding government ministries and agencies, as well as cross-border and international cooperation, which are essential in developing a package of effective actions. Technical and financial support are essential, moreover, to implement effective actions to support the sustainable utilization of forest resources and biodiversity, especially with regard to integrated ecosystem restoration programs.

In recognition of the importance and inherent values of its extensive biodiversity resources, the Royal Government of Cambodia under the leadership of Samdech Akea Moha Sena Padei Techo Prime Minister Hun Sen has introduced strategies and programs for conserving forest and wildlife resources and other associated forms of biodiversity. It has introduced measures for reducing and eliminating the illegal trade of forest and wildlife resources by means of strengthened law enforcement. It has promoted awareness raising of the importance of biodiversity and the critical importance of ensuring the conservation of biodiversity through the implementation of regional and international conventions and agreements. The organization of this regional conference allows each of our countries to share our experiences and lessons learned regarding the most effective means of conserving biodiversity throughout the region.

Dr. Chheng Kimsun was pleased to extend appreciation to the government and the people of Japan for their consistent support of the implementation of the Cambodian Forestry Administration-ITTO project, the organizers of this regional conference, in each of its three phases. He also was very pleased to recognize the various contributions of the ITTO for its provision of uninterrupted support through each of the phases of the project. He commended the participation of each of the participants in this regional conference to strengthen biodiversity conservation throughout the region, as well, and he looked forward to the opportunity to participate in the stimulating discussions that would support the continuation of advances in cooperation, networking, and commitment between each of the countries in the region that would ensure the conservation of our biodiversity resources.

Remarks by H.E. Mr. Pratak Sikkhamonton, Minister Counsellor, Royal Thailand Embassy, Phnom Penh, Cambodia

H.E. Mr. Pratak Sikkhamonton, Minister Counsellor, Royal Thailand Embassy, expressed

on behalf of the Ambassador of Thailand to the Kingdom of Cambodia his honor to join in this Regional Conference on 'Biodiversity Conservation in Tropical Forests of the Greater Mekong Sub-region,' in which many experts, academics, government agencies, international organizations, and other concerned stakeholders would participate during the next three days in the very beautiful city of Siem Reap, recognized as one of the most visited world heritage sites. He said that the objectives of the conference were not only to discuss the root causes and problems related



to biodiversity degradation, but also the various measures and action plans that have been undertaken to safeguard biodiversity conservation, as well as to discuss other relevant issues, including global warming, the El Niño/La Niña phenomenon, and wildlife and endangered species protection. He expressed his sincere appreciation to each of the countries in the Greater Mekong Sub-region, as well as to donor countries and other stakeholders, for their tireless efforts and cooperation and strong commitment to overcome every obstacle with regard to biodiversity conservation. He was convinced that Thailand, as one of the important participants in efforts to strengthen biodiversity conservation throughout the region, was prepared to reaffirm its willingness to extend its support to other countries and stakeholders who were participating in those efforts.

He expressed his appreciation to the Forestry Administration of the Royal Government of Cambodia, ITTO, JICA, the ETFC, and the Convention on Biological Diversity for their invaluable support to jointly organize this regional conference and he wished participants successful results.

Congratulatory Remarks by Mr. Takeshi Goto, Assistant Director International Tropical Timber Organization (ITTO)

Mr. Takeshi Goto, Assistant Director of ITTO, was honored to be able to provide some



remarks on behalf of the International Tropical Timber Organization on the memorable occasion of the opening of the Regional Conference on 'Biodiversity Conservation in Tropical Forests of the Greater Mekong Sub-region' organized in the beautiful, historical city of Siem Reap.

He congratulated the Forestry Administration of Cambodia for the excellent preparation and arrangements made for this important event. He said that the regional conference would provide the

opportunity to share experiences, innovative ideas, and lessons learned from practices in the respective countries and to discuss the means to further enhance efforts to conserve biodiversity and advance sustainable forest management in the Greater Mekong Sub-region. He expressed his sincere appreciation for the hospitality and generous support provided by the government and the people of Cambodia.

Mr. Goto said that the regional conference had been organized on the basis of results from the implementation of a series of ITTO projects, primarily *PD 15/00 Rev.2 (F)*, *PD 289/04 Rev.1 (F)*, and *PD 577/10 Rev.1 (F)* on "Management of the Emerald Triangle Protected Forests Complex to Promote Cooperation for Trans-boundary Biodiversity Conservation between Thailand, Cambodia and Laos." It was as the result of the implementation of the several phases of this project that a management planning process was initiated, tri-national cooperation between participating countries was established and strengthened, biodiversity conservation activities were initiated with the involvement of local communities, and the protection of transboundary habitats of a range of wildlife species was increased.

He extended his appreciation to the Forestry Administration of Cambodia, the Royal Forest Department of Thailand, and Champasack University in Laos, particularly to those who have been engaged in the formulation and implementation of these project phases, for their tireless, collaborative efforts. He also expressed appreciation to the governments of Japan, France, Switzerland, and the United States for their generous contributions that had made project implementation possible.

He emphasized, in this connection, the valuable support provided by the Japan International Cooperation Agency (JICA) through its experts attached to the governments of Cambodia and Laos. He indicated that on various occasions the timely and effective guidance and assistance provided by the JICA experts had greatly benefited the project. This has been particularly apparent with the on-going Phase III of the project, which is financed through Japan's Grant Aid Programme for which ITTO and JICA, as well as the Foreign Ministry of Japan, have signed an agreement for mutual cooperation.

Mr. Goto indicated that at the level of headquarters, ITTO and JICA continually exchange information and views on the project and policies of common interest. Under a Memorandum of Understanding (MOU) signed in September 2010 and subsequently renewed in June 2015, the two organizations have stimulated collaboration in various forms, including through the organization of joint side events at major international conferences and the production of joint publications on important issues, in addition to field level cooperation in Cambodia and other tropical forest countries. He said that this provided an ideal model for partnerships between an intergovernmental organization and a bilateral development cooperation agency.

He remarked that the on-going Phase III of the Emerald Triangle trans-boundary biodiversity conservation project was financed and implemented as the first project under the *Joint ITTO-CBD Collaborative Initiative for Tropical Forest Biodiversity*. That Initiative is one of the major components of the joint activities conducted under a MOU between ITTO and the CBD Secretariat. The original MOU was signed in March 2010 to commemorate the International Year of Biodiversity 2010 and the International Year of Forests 2011. Subsequent to its successful implementation during its initial four years, the MOU was extended until 2020 on the occasion of the 12th Session of the Conference of Parties to the Convention on Biological Diversity (CBD COP 12) organized in Pyeongchang, Republic of Korea, in September 2014.

Under the Initiative, 13 ITTO projects have been financed, of which 10 remain operational, one project having been completed with the two others soon to be operationalized. For the implementation of those projects, more than US\$ 31 million has been provided since 2010. He said that he wanted to put on record his utmost gratitude for the resources made available by donors to operationalize the Joint Initiative.

He indicated, as well, that ITTO has been delighted with the close collaboration with the CBD Secretariat. As members of the Collaborative Partnership on Forests (CPF) in support of the United Nations Forum on Forests, the two organizations have collaborated with other CPF

members in monitoring and assessing progress towards achievement of the forest-related Aichi Biodiversity Targets. ITTO and the CBD Secretariat are collaborating to mainstream biodiversity conservation at the national and international levels under the framework of the Aichi Biodiversity Target Task Force, as well.

Mr. Goto said that the areas along borders are often rich in forests and forest biodiversity. The habitats of wildlife species stretch beyond borders and indigenous and local communities often maintain relationships and communications across borders. Such border areas are often strictly restricted, however, by the military, as well as for political reasons or to prevent illegal activities. The establishment and joint management of trans-boundary conservation areas (TBCAs) contribute not only to the conservation of forests and forest biodiversity, but also to the promotion of technical and scientific exchanges between experts and researchers, institutions, and countries, and may ease tensions and reduce conflicts.

He stated that ITTO, as an intergovernmental organization, has actively supported member countries in establishing TBCAs and in conducting studies and developing and improving management skills and capacity through the implementation of ITTO projects. One of the earliest and the most successful trans-boundary conservation projects of ITTO was implemented in the Condor Range Region stretching along the border of Ecuador and Peru. He referred to another successful example, as well, along the border of Indonesia and Malaysia on the island of Borneo. It is as the result of the joint efforts of the countries concerned that more than 10 million hectares of TBCAs have been established in tropical forests in more than a dozen ITTO member countries.

Mr. Goto confirmed that forests represent about 70% of the world's terrestrial biodiversity. At the same time, over 1.6 billion people, nearly a quarter of the world's population, depend on forests for subsistence, livelihoods, employment, and income generation. Sixty million indigenous people live in tropical forests and depend on those forests for survival; 150 million people obtain significant protein from bush meat; 2 billion people rely on biomass fuels, primarily derived from forests or from trees outside forests, for cooking and heating; and 75%-90% of the people in developing countries depend on natural products from forests as a source of medicine.

He said that it is essential, therefore, to find the means to sustain the livelihoods of the people who depend on forests in order to make conservation efforts successful. Significant progress has been made in the involvement of stakeholders, including indigenous and local communities, in pursuit of locally appropriate approaches that recognize the intricate relationship between conservation and subsistence, but various challenges remain in sustaining the achievements and scaling up the efforts.

Mr. Goto elaborated that according to the *Status of Tropical Forest Management 2011*, 47% of the natural permanent forest estate in ITTO producer member countries is allocated for protection, including both for biodiversity conservation and soil and water protection. In other words, 53% of the natural permanent forest estate, which covers 403 million hectares, is allocated to the production of timber and other forest products. It is, therefore, crucial to maintain healthy and vital ecosystems with biodiversity in order to sustain the forest resource base of tropical production forests and increase resilience with the onset of a changing climate.

He affirmed that with the aim of assisting tropical forest countries to sustain biodiversity in production forests, ITTO and the International Union for the Conservation of Nature and Natural Resources (IUCN) jointly developed, in 2009, *ITTO/IUCN Guidelines on the conservation of biological diversity in tropical timber production forests*. The primary challenges remaining to ITTO and its member countries are the application of this set of

guidelines, as well as associated priority actions, in daily field operations and the development and improvement of national strategies, policies, and forest management plans.

Mr. Goto affirmed that ITTO has been a longstanding leader in supporting trans-boundary conservation in the tropics and with its member countries has made genuine progress in engagement of indigenous and local communities and other stakeholders in pursuit of strengthened conservation with community involvement. Insufficient capacity and inadequate financial resources, among other factors, however, continue to hamper those actions.

Mr. Goto declared that 2015 was an epoch-making year for forests in the context of sustainable development with the adoption of the 2030 Agenda for Sustainable Development, including Sustainable Development Goals (SDGs) and associated targets, at the United Nations General Assembly and the Paris Agreement at the 21st Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC COP 21). The Economic and Social Council of the United Nations, moreover, had adopted a resolution to strengthen International Arrangements on Forests and the United Nations Forum on Forests had started its deliberations for the establishment of a Strategic Plan for 2016-2030. In those internationally agreed actions, biodiversity conservation and sustainable forest management are recognized as areas that require further enhancement. Opportunities are now emerging, according to Mr. Goto, and the challenge is to ensure that changes on the ground are made with shared knowledge and enhanced partnerships.

Mr. Goto concluded his remarks by stating that this regional conference would move us a step ahead toward enhanced actions on the basis of active participation and contributions. He said that ITTO is determined to continue working hand-in-hand with member countries and partners to further advance biodiversity conservation and sustainable forest management in the Greater Mekong Sub-region for the well-being of both present and future generations.

Remarks by Dr. Ian Thompson, Secretariat Scientific Advisor, Convention on Biological Diversity (CBD), Montreal, Canada

Dr. Ian Thompson, Secretariat Scientific Advisor, Convention on Biological Diversity,



conveyed to participants the regrets of **Dr. Braulio Ferreira de Souza Dias, Executive Secretary of the Convention on Biological Diversity,** who was unable to attend the regional conference as the result of other commitments. He said that it was a pleasure for the Secretariat of the Convention to address participants at this important conference and he wanted to specifically recognize the Government of Cambodia, as well as the International Tropical Timber Organization, for hosting and facilitating the preparations for this

regional conference and for the joint efforts undertaken with the governments of Thailand and Lao PDR to promote cooperation for trans-boundary biodiversity conservation.

He said that he wished to underscore two important points that he believed would contribute to the discussions during the regional conference:

First, he referred to the immeasurable value of biodiversity to the Greater Mekong Sub-region. He stated that not only do countries in the region contain some of the most biologically diverse habitats in the world, but it is that diversity that provides many local and global benefits that are essential for human well-being. For a number of countries, biodiversity is important for several reasons, including food security, herbal medicine, cultural or ritual ceremonies, national

income, and knowledge of science and technology. He said that nearly 80 per cent of the Greater Mekong's 300 million people depend directly on the goods and services its ecosystems provide, especially its food, fiber and clean water.

Dr. Thompson stressed that leveraging the critical ecosystem services that the Mekong Subregion provides for human well-being, as well as its role as a global biodiversity hotspot, requires careful, sound management. He said that the efforts to maintain intact forest areas in the region are essential for rare fauna and flora to survive and that losses of large species, notably the Javan rhinoceros, are clear indicators that we have not been good stewards of this rich area in the past. It is only by carefully managing the forest and river resources with overall conservation objectives and by reducing the illegal wildlife and timber trade that we will be able to maintain its rich biodiversity.

It is to this end that the Convention Secretariat's collaboration through the ITTO/CBD Joint Initiative on Tropical Forest Biodiversity on actions such as the Emerald Triangle protected forests trans-boundary biodiversity conservation project is an important cornerstone to the longterm conservation of biodiversity in the region. In this context, he referenced the joint collaboration between the Secretariats that has assisted countries to reduce losses of biodiversity through the implementation of the CBD Programme of Work on Forest Biodiversity, which focuses on the common objectives of the Strategic Plan for Biodiversity 2011-2020 and the ITTO Action Plan 2013-2018.

Dr. Thompson reiterated that the Emerald Triangle protected forests trans-boundary biodiversity conservation project reinforces the importance of inter-sectoral coordination and cooperation among regional institutions, effectively pursuing integrated approaches that strengthen biodiversity conservation while enhancing local livelihoods. Further efforts, he said, will still be required, however, to expand protected areas, especially in those areas where the project has the opportunity to support primary forests. These types of projects and cross-sectoral efforts will enable countries to advance the global commitment of the Strategic Plan for Biodiversity 2011-2020 made at the 10th Conference of the Parties to the CBD to conserve, sustainably use and restore biodiversity and ecosystem services.

Dr. Thompson's second point was related to the importance of data collection, systematic monitoring, and consistent reporting. He said that many countries in the Mekong Sub-region have demonstrated in their submissions to the CBD, either through their national biodiversity strategy and action plan (NBSAP) or national reports, the status, pressures and threats to species and ecosystems, including forests. He emphasized that the knowledge of species distributions, forest cover, forest cover changes, and land use changes should not be underestimated in ensuring better land use planning.

He highlighted several observations from different countries' NBSAPs and national reports, in which:

He noted that in 2013, **Cambodia** defined twenty national targets and biodiversity indicators aligning to the 20 global Aichi Biodiversity Targets. Cambodia divided those targets into four main parts including: Education; Legal and Strategic Framework; Conservation; and Community and Sustainable Use. In effect, he said, Cambodia's NBSAP is currently under review and the development of their national targets and indicators have been part of a participatory review process and he was pleased that a detailed presentation on the NBSAP process would be provided as part of the regional conference.

He indicated, as well, that in its 5th national report, **Thailand** reported targets that included several links to Aichi Biodiversity Targets 5, 11, 12, and 14. The national targets to be met by 2016 provide a framework for the national biodiversity action plan (2015-2016). Among the many indicators, he said, there is one that pays significant attention to forestry, that of

"forestlands cover no less than 40% of the country." Thailand has also initiated the ASEAN Forest Project to reforest areas connected with neighboring countries to create healthy and fertile forest complexes for serving as the "Lung of ASEAN."

Dr. Thompson indicated that the NBSAP assessment of **Lao DPR** in 2012 had developed national objectives relating to habitat protection and ecologically sustainable forestry management practices, ensuring biodiversity conservation. Since 2004, the Department of Forests had made strong efforts in forest management, especially with regard to assigning forest categories and expanding production, protection and conservation forests. The areas to be further explored in preparation of the revised NBSAP include more extensive implementation of Land Use Planning, taking into account principles of environmental sustainability; a comprehensive policy for forest management, particularly for logging and fuelwood; monitoring of impacts of plantations on surrounding ecosystems; and developing management plans for a larger number of production forests.

In **China**'s 5th national report, reference was made to cooperation with Myanmar, Vietnam, and Lao DPR on the Biodiversity Corridors of the Mekong River Sub-region, which has achieved substantive progress in protected areas, personnel training, fire prevention and transboundary protection of Asian elephants. A national plan for protected areas, moreover, is underway with new requirements for spatial layouts and management of protected areas. It will also be incorporated into broader national plans for social and economic development.

Myanmar had also submitted its revised NBSAP and the most significant change over the 2012 version was the use of the 20 Aichi Biodiversity Targets to structure its analysis. Under each global target, there are several national targets. These were designed to be specific and realistic in consideration of the five-year time frame and available human resources. Some of those key targets relate to targets 5, 11 and 15.

Vietnam issued its NBSAP in 2015, as well, highlighting actions for the development of biological corridors to increase connectivity among forest ecosystems and critical biodiversity areas to adapt to climate change.

Dr. Thompson said that as countries develop their own paths towards achieving the Strategic Plan for Biodiversity, they will be searching for the most efficient and innovative solutions to meet their sustainable development requirements without compromising biodiversity objectives. He stated that many Parties in the region have already initiated the revision process of their NBSAPs, which is a very important step in the right direction. Other national, regional, and international initiatives, in support of the Strategic Plan for Biodiversity, have also been fundamental to address the main drivers of biodiversity loss.

He concluded his remarks by saying that this regional momentum is inspiring and will be able to benefit from other conservation and restoration events in 2016. With the support of the Forest Ecosystem Restoration Initiative, the CBD Secretariat is organizing, at the end of June 2016, a workshop for the restoration of forests and other ecosystems. Without treating it as a substitute for conservation, restoration has become an important element of the Strategic Plan for Biodiversity. In order to prepare for this workshop, the Secretariat will build on the results from the Asia-Pacific Rainforest Summit and the Asia-Pacific Rainforest Recovery Plan, as well as from the discussions of this regional conference.

Dr. Thompson said that achievement of the Strategic Plan for Biodiversity and the Aichi Biodiversity Targets will require strategic partnerships between Parties, the Convention, and regional and global partners and that the CBD Secretariat would continue its efforts in this spirit of collaboration.



Distinguished delegates and participants in the Regional Conference.

Keynote Speeches

Introduction to the Impact of a Cow Bank Bio-digester Initiative for Local Livelihood Improvement

H.E. Dr. Chheng Kimsun, Delegate of the Royal Government of Cambodia, Head of the



Forestry Administration, provided the participants with an introduction to the themes of the regional conference by presenting a description of the 'oversize' impacts on the enhancement of the livelihood of a poor rural family in Siem Reap province of a relatively 'small' initial investment in a cow bank bio-digester program.

The most important consideration is the people that are involved in the project area. The experience is about a farmer in Tbeng Lech commune, which is about 10 km from Siem Reap. He received 3,000 m² of land and with support from the project, he was provided with 2 female cows, and a biogas digester. We expected that those 2 cows would produce 4 calves every three years and provide him with a large income. That farmer was very clever since he planted vegetables in an intercropped system in his home garden and gathered cow dung to put into his biogas digester. He not only earned income, but he was no longer required to collect fuelwood from the forest. The project extended this initiative to Tbeng Lech community forest with the participation of 400 families on 200 hectares of forestland. There was more impact with less input required from the project in this expansion of activities. The first result was to mitigate the impacts of climate change since by raising animals and using the biogas digesters, the people did not have to continue to harvest trees and collect fuelwood from the forest. In terms of impacts involving REDD+, these practices reduced emissions. In regard to the availability of energy, instead of releasing methane gas into the atmosphere, the gas produced in the biodigester was used for cooking and lighting people's houses. There was a second result related to gender and health improvements since the women no longer had to collect fuelwood and inhale the smoke from burning the wood that could cause lung cancer. They also now have more time to take care of their children. The third result increased education since the children were now able to use the lighting at night to read a book and extend the hours available to them for learning. The children also no longer had to take the time to look after their cattle and those animals no longer destroy villagers' crops since the animals remain in a fenced enclosure, which reduces conflict.

The Convention on Biological Diversity is concerned with livelihood improvements, as well as the relationship between water management and forest biodiversity conservation. Sustainable water management is ensured as the result of the sustainable forest biodiversity conservation that is practiced in the area surrounding a dam or natural stream or river. People are the primary drivers of forest destruction and if their livelihoods cannot be improved, how could sustainable forest conservation be ensured? This is the moral from the project - "less input, but a huge impact on many aspects affecting local livelihoods and ecosystem conservation."

Biodiversity Conservation: Current global forest issues and concerns Dr. Ian Thompson, Secretariat Scientific Advisor, Convention on Biological Diversity



Forests support the vast majority of terrestrial biodiversity and provide humans with many important goods and services, but continue to be lost at a rate of at least 7 million ha a year. That loss, coupled with forest degradation, contributes about 15-20% of the anthropogenic atmospheric carbon emissions each year. Deforestation originally was extensive in the temperate zones, but since the 1980s has become most extensive in the tropics. The causes of forest loss are many, mostly related to poor governance, poverty, illegal logging, and conversion to various agricultural crops or pasture and oil palm. Intact forests remain on only about 25% of the global landscape and represent the best opportunity to support remaining biodiversity. Forest degradation continues to be a global issue following poor management practices and can be indicated by changes in biodiversity, production, carbon stored, protective functions and amount of disturbances. Biodiversity contributes a large range of forest ecosystem services ranging from food and wood to pollination and clean water. Loss of forest biodiversity results in a loss of these services. It is as yet uncertain whether or not sustainable forest management is even possible in tropical forests owing to many coevolved processes that are disrupted during management. Among the many global efforts to improve forest management is the CBD Strategic Plan for Biodiversity and the Aichi Targets, the Sustainable Development Goals, the Global Landscape Restoration Initiative, UN-REDD, and the ITTO-CBD Program for Biodiversity in Production Forests. All of these programs are having successes, but global, wise forest use will only be achieved with concerted national and local efforts to sustain forests.

Biodiversity Conservation within Cambodia's Protected Areas Mr. Kim Nong, Deputy Director General, GDANCP, Ministry of Environment



In a small (181,035 km² with about 14 million people), lesser developed country in Southeast Asia with a tragic history, Cambodia's Protected Areas (PAs) cover approximately 27% of the area of the country. The country's PAs are divided into 8 categories, some of which represent unique ecosystems. Cambodia currently has more lands designated for biodiversity protection and conservation than any other ASEAN country, but this system of PAs is now under heavy



pressure. Cambodia's National Protected Areas Strategic Management Plan (NPASMP) coincides with other national strategies. Its goals are to (1) Maintain and enhance the ecological and cultural values of protected areas; (2) Promote participatory community engagement and support for conservation management; (3) Develop innovative approaches to conservation and development, including opportunities for sustainable ecotourism and financing mechanisms; (4) timely Provide accurate, and relevant information for effective management of

protected areas; and (5) Strengthen protected area management effectiveness and working partnerships with government organizations, local authorities, conservation NGOs, and development partners. Cambodia's system of PAs conserves unique ecosystems that support natural, cultural, and economic values which benefit Cambodia, as well as the region; maintains consistency with institutional and legal reforms that are the foundation of its sustainable management; addresses through the NPASMP the country's development requirements in harmony with conservation based on partnerships that provide a platform for coordinated management of the PAs; and strives to provide equitable access and ensure resource stewardship by recognizing the critical importance of empowering communities and alleviating poverty. Coordination and investment is required at local, national and regional levels, in combination with other support, to strengthen conservation management and law enforcement, expand community livelihood opportunities, and promote sustainable uses of Protected Area resources.

Session 1: Country Presentations – Part I Myanmar: Biodiversity Conservation in Myanmar

Mr. Kyaw Sein Win Tun, Staff Officer, Nature and Wildlife Conservation Division, Forest Department, Myanmar



Myanmar is a country situated in continental Southeast Asia with an area of 676,577 km². There are many forest types in the country and along with its diverse forest ecosystems, Myanmar is

one of the 35 biodiversity hotspots in the world. According to the FAO Forest Resources Assessment (2015), about 42 % of the country's total land is forested. Myanmar, therefore, represents an important biodiversity reservoir in Asia. Furthermore, Myanmar possesses numerous endemic wild flora and fauna. Between 1981 and 1984, the 'Nature Conservation National Park Project' was launched under the joint implementation of the United Nations Development Program and the Myanmar government. During the project, the Ministry of Forestry established the Nature and Wildlife Conservation Division, which is responsible for nature conservation and Protected Area (PA) management. Myanmar's Forest Policy (1995) mandates that PA coverage must be at least 5% of the total area of the country, which should be increased to 10% in the long run. Currently, Myanmar has 38,880.20 km² in 39 PAs that represent diverse ecosystems which cover 5.75% of the country's land area. There are another 9 areas that occupy 7,555.06 km² and represent 1.11% of the country's land area that have been proposed to be established as PAs, as well. Wildlife crime enforcement, both inside and outside of PAs and trans-boundary areas, has been implemented in collaboration with international organizations such as CITES. Laws and legislation, strategies, and plans are applied throughout the country for effective biodiversity conservation.

Thailand: Biodiversity Conservation in Thailand

Mr. Sapol Boonsermsuk, Project Coordinator, Director, International Cooperation Division, Royal Forest Department



Thailand is situated in a hot and humid climatic zone that supports a variety of tropical ecosystems. The country has approximately 15,000 species of plants, some 1,721 species of terrestrial vertebrates (mammals, birds, reptiles, and amphibians), more than 2,000 marine fish species, and over 3,000 species of mushrooms and fungi. The causes of the reduction of biodiversity in Thailand are usually over-exploitation, illegal trading of animal and plant species, and the disturbance and loss of natural habitat. The illegal trading of wildlife is a direct threat to biodiversity, as is other human disturbance, which is the most serious threat to biodiversity. The loss of biodiversity in Thailand will continue over a period of some time. The rate of the loss will not slow during that time, even though a significant amount of mitigation activities has been implemented by private and public agencies and organizations. Institutionalbased activities to conserve forests, marine ecosystems, and freshwater environments will continue to require efforts to conserve biodiversity. The continuous loss of biodiversity in Thailand at such an alarming rate is primarily caused by the lack of social awareness and consciousness in preserving natural resources for the coming generations. The prospect of biodiversity in Thailand is very much in crisis. The present conservation efforts have not been able to hold back the alarming rate of biodiversity loss. There are still many factors supporting the wasteful use of biodiversity, while supporting factors for the conservation and sustainable utilization of the biodiversity are still greatly insufficient.

Vietnam: Special Use Forests System and its Management in Vietnam

Dr. Nguyen Vu Linh, Deputy Director, Nature Conservation Department, Viet Nam Administration of Forestry



Vietnam has a land area of 329,566.00 km² and the country is bordered by China on the north and Laos and Cambodia on the east. Most of the country consists of hills and mountains reaching to over 3,000 meters above sea level, a 3,260 km coastline harboring a variety of marine and coastal habitats, inland lakes and rivers, tropical rainforests, monsoon savannah, sub-alpine scrubland, and two important river deltas (ICEM 2003). These habitats are home to about 16,428 plant species and 10,300 animal species (VNFOREST 2014). Vietnam is one of the world's ten most biologically diverse countries; it contains about ten percent of the world's species, while covering less than one percent of its land area (World Bank 2002a).

Based on Decision No 1739/QD-BNN-TCLN, dated 31 July 2013, of the Ministry of Agriculture and Rural Development (MARD) on the declaration of the national forest status in 2012, the forest coverage in Vietnam was 40.7%. The total forest area was 13,862,043 ha, including 2,021,995 ha of Special-use Forests, 4,675,404 ha of Protection Forests, 6,964,415 ha of Production Forests, and 200,230 ha of planted forest (MARD-1739).

Currently, the management of Special Use Forests (SUFs or PAs) is based on the Law of Forest Protection and Development (2004); Decree 23 on guidelines on implementing the Law of Forest Protection and Development (2006); Decision 186 (2006); Decree 117 (2010); Decision 24 (2012); and related laws and under-the-law legal papers. There have been insufficient concrete regulations regarding the decentralization of PA management, however. This often leads to confusion in the institutional arrangements for PA management at provincial levels since the organizational structure of PAs is not united throughout the country.

Session 2: Country Presentations – Part II China: Biodiversity and Its Conservation in Yunnan China Dr. Zhang Jinfeng, Research Professor, Yunnan Academy of Forestry, China





Its natural characteristics of high mountains and deep gorges, glacial relics, 6 vertical climatic zones, and various soil types make Yunnan Province a biodiversity green land along the Tropic of Cancer, one of the world's 35 biodiversity hotspots, and the most biodiversity rich province in China. The biodiversity features of Yunnan are represented at several levels: (1) The Landscape Level - There are modern glaciers, alpine complexes, forest landscapes, great rivers, plateau wetlands, karst landscapes, nepheline landscapes, and various agricultural landscapes throughout Yunnan; (2) The Ecosystem Level - Almost every vegetation type in China, including tropical rainforests, monsoon forests, subtropical evergreen forests, broadleaved forests, broadleaved deciduous forests, warm coniferous forests, alpine coniferous forests, coniferous and broadleaved mixed forests, alpine shrubs, alpine meadows, and alpine debris exist within an area of 1000 km²; and (3) The Species Level: Yunnan has only 4% of China's land, but contains about 1/2 of China's vertebrates and vascular plants. There are over 15,000 Pteridophyte species, accounting for about 58% of those species in China; more than 100 Gymnosperm species, accounting for more than 40% of those species in China; and over 15,000 Angiosperm species, accounting for about 50% of those species in China, many of which are genuses endemic in Yunnan.

The biodiversity in Yunnan has been heavily threatened, however, by natural disasters and human disturbances, including population pressure, poverty, incompatible economic development, pollution, soil erosion, wood collection, excessive logging, illegal hunting, infrastructure construction, uncontrolled tourism, urbanization, inappropriate restoration techniques, conflicting policies, and changing life styles.

Various actions have been implemented to strengthen biodiversity conservation in China, including: (1) Institutional capacity building; (2) Integrated management; (3) Forest conservation programs; (4) Community development; (5) Awareness raising and public education; and (6) law enforcement.

Cambodia: Forest Biodiversity Conservation in Cambodia

Mr. Chheang Dany, Deputy Director of the Department of Wildlife and Biodiversity, Forestry Administration, Cambodia



Cambodia is an important component of the Indo-Burma Biodiversity Hotspot, which is one of 35 Biodiversity Hotspot designations worldwide. It has the largest contiguous block of natural forest remaining on the continent's mainland and it is home to more than 125 species of mammals, 625 species of birds, 95 species of reptiles, 65 species of amphibians, 350 species of moths and butterflies, 850 species of freshwater and marine fish and other aquatic organisms, and more than 4500 species of plants. The balance that has been established between

conservation and development to maintain that biodiversity remains somewhat precarious, however, for reasons that are not unique to either Cambodia or to other undeveloped regions of the world.

Cambodia currently ranks 143rd of 188 countries in terms of the UNDP's Human Development Index and it is within the socioeconomic and political environment that accounts for that relatively low ranking that drivers of deforestation and forest degradation act to impair the country's biodiversity. Some of the more critical issues and concerns that are linked to the origins and impacts of those drivers of deforestation and forest degradation include encroachment, illegal logging, and the unregulated use of non-timber forest products, as well as the evolving patterns of changes in forest cover and land use associated with the unsustainable use of forest resources propelled by an expanding population, persistent poverty, and landlessness.

The recent advances in the country's economic growth have not forestalled the introduction of several interventions to address these concerns. Those interventions have included policies to support the establishment of community managed forests that will provide local people with tangible benefits and vested interests to support conservation; programs to enhance livelihoods to reduce the dependence of local communities on the unsustainable use of forest resources; initiatives to strengthen the enabling policies and legislative environment required to increase the effectiveness of enforcement programs to deter illegal logging; and the establishment of a comprehensive Reduced Emissions from Deforestation and Forest Degradation (REDD+) program to secure sustainable payments to conserve the country's biodiversity.

There have been several lessons learned, as well as others that still remain to be learned, that will influence the most effective means to conserve biodiversity in the Cambodian context. Some of those lessons include:

- The understanding that the balance that is achieved between development and conservation must be one that is continuously monitored and adjusted to maximize the pooling of mutually compatible, reinforcing benefits attributable to the integration of the country's development and conservation programs.
- The recognition that while the establishment of a comprehensive policy and legislative environment to support conservation is a necessary element in efforts to conserve biodiversity, it will, in and of itself, be insufficient if not accompanied by a strong program of enforcement of those policies and legislation.

The realization that efforts to enhance the livelihoods of local communities to decrease dependence on the unsustainable use of forest resources must incorporate components that ensure the sustainability of the activities that are introduced to enhance those livelihoods if realized decreases in dependence are to be maintained.

Lao PDR: Forest Biodiversity and Conservation in Lao PDR Mr. Bounthavy Vongkhamchanh, Lecturer, Faculty of Agriculture and Forestry, Champasack University



Lao PDR is bordered by Myanmar, Cambodia, China, Thailand, and Vietnam. It has an area of 236,800 km² with a population of 6.8 million, 63 per cent of which still lives in rural areas. The country is largely mountainous (70%), with the Mekong River flowing from north to south and forming the border with Thailand for more than 60 per cent of its length. GDP growth averages 7 per cent and the Gross National Income (GNI) per capita was \$1,600 in 2014. The primary source of income is from water, mineral, and forest resources. Lao PDR has declared 20 National Biodiversity Conservation Areas (NBCAs) and there are 11 others that have been proposed. The numbers of known species include 8,286 plants and 1,300 vertebrates, about 40% of which are considered to inhabit forests. The country's deforestation rate, which is primarily due to timber harvesting and shifting cultivation, averages about 0.7%/year. The Forest Law provides for five classes of forests - protection forests, conservation forests, production forests, regeneration forests, and degraded forests. The Forestry Strategy 2020 has set a target of planting trees in 500,000 ha of severely degraded forest areas and has assumed that 6 million ha of forest would regenerate naturally. More generally, the government has committed to increasing the country's forest cover to 70% by 2020.

Session 3: Lessons from the Emerald Triangle and the Heart of Borneo Trans-boundary Biodiversity Conservation Projects

Management of Trans-boundary Protected Areas in the Emerald Triangle between Thailand, Cambodia, and Lao PDR

Dr. Dennis J. Cengel, Technical Advisor, Cambodia Component, and Mr. Kamol Wisupakan, Project Manager, Thailand Component, ITTO PD577/10 Rev.1(F): Emerald Triangle Trans-boundary Biodiversity Conservation



The Emerald Triangle Protected Forests Complex, which traverses the borders of Thailand, Cambodia and Laos, represents one of the most important biodiversity conservation landscapes in Southeast Asia, particularly in the Greater Mekong sub-region.

The first phase of the 'Emerald Triangle Trans-boundary Biodiversity Conservation Project' was implemented from October 2001 to December 2004. Its objectives were to initiate a management planning process in a framework of trans-boundary cooperation for biodiversity conservation and to promote cooperation between Thailand, Cambodia and Lao PDR.

The second phase, in which Cambodia established a project component, was implemented from March 2008 to June 2010. Its objectives were to strengthen cooperation between the three countries, enhance protection measures and the monitoring of the biological resources of shared trans-boundary areas, and strengthen the involvement of local communities and stakeholders to ensure sustainable uses and management of natural resources.

Implementation strategies in the third phase of the project conducted from August 2012 to March 2016 were directed to the harmonization of processes for management planning and the implementation of joint research activities. Within that broad perspective, research on wide-ranging wildlife species continued in Thailand and Cambodia and was extended to Lao PDR. The sharing of information was institutionalized between the three countries, as well, as a basis for formulating sustainable management plans and strategies to conserve forest resources and reduce barriers to migratory wildlife movements along the tri-national borders. Implementation strengthened regional cooperation and enhanced monitoring and conservation interventions, while mobilizing support and strengthening the collective political will to maintain the common natural heritage of the three countries participating in the project.

Wildlife Habitats and Land Use Modeling: An example from the Emerald Triangle Protected Forests Complex

Dr. Yongyut Trisurat and Dr. Naris Bhumpakphan, Faculty of Forestry, Kasetsart University, Bangkok, Thailand



The Emerald Triangle, which traverses the borders of Thailand, Cambodia and Lao PDR, is one of the most important biodiversity conservation landscapes in the Greater Mekong Sub-region. Several iconic landscape species, including the Asian elephant, Indochinese tiger, gaur, banteng and *Eld*'s deer, seasonally migrate across the borders of its heterogeneous landscape. Biodiversity in the area is under pressure from poaching and habitat loss. The viability of those species will, thus, depend on considerably collaborative efforts of the three countries to maintain the integrity of remaining habitats and to mitigate environmental threats across the tri-

national borders. This presentation presents key outputs of the Management of the Emerald Triangle Protected Forests Complex to Promote Cooperation for Trans-boundary Biodiversity Conservation between Thailand, Cambodia and Laos project jointly implemented by the Royal Forest Department of Thailand and the Forestry Administration of Cambodia with technical support from the Faculty of Forestry of Kasetsart University in Thailand.

Land demands during 2013-2030 were determined by multiple stakeholders in the three countries based on two driving factors, population growth and economic transition in the region. A spatially explicit land use prediction model was employed to allocate future land



demands in the Emerald Triangle landscape. Meanwhile, joint wildlife research was conducted to gather occurrences of wide-ranging landscape species and their current and future distributions according to land use patterns and climate change were predicted. The research results indicated that light to moderate land use change would generate slight impacts on the distributions of 12 selected species because most of the remaining suitable habitats are located in protected areas, while forest encroachment for agriculture and rubber plantations most likely would occur in the associated buffer zones. In contrast, under the unsustainable land-use scenario in combination with future climate change, there were predicted severe impacts on most selected species, except for on the grazing ungulates. There are still challenges, nevertheless, that must be overcome in the pursuit of embedding the model results into effective management planning and implementation to conserve trans-boundary biodiversity, especially landscape species as defined in a *common vision* of the area while enhancing local livelihoods.

Transboundary Biodiversity Conservation Cooperation in Sarawak, Malaysia Dr. Paul P.K. Chai, ITTO Project, Sarawak, Malaysia



Sarawak has set aside one million ha (10% of its total land area) of natural forest as Totally Protected Areas (TPAs) for biodiversity conservation and environmental services. TPAs

comprise national parks, wildlife sanctuaries and nature reserves. Subsequent to the 1989/1990 ITTO Mission, Sarawak sought international assistance to enhance its conservation efforts. The first ITTO-supported project to develop Lanjak Entimau Wildlife Sanctuary as a Totally Protected Area was implemented in 1993. This led to the establishment of two trans-boundary biodiversity conservation areas (TBCAs) with Indonesia: (1) Lanjak Entimau Wildlife Sanctuary (LEWS)-Betung Kerihun National Park (BKNP, West Kalimantan) in 1994; and (2) Pulong Tau National Park (PTNP)-Kayan Mentarang National Park (BKNP, East Kalimantan) in 2005. Trans-boundary conservation promotes regional cooperation, secures large areas of contiguous forest across international boundaries, safeguards important habitats, flora and fauna, and promotes local community welfare. Principal constraints are ITTO-dependent associated with the ending of projects with no sustainable government financing. Achieving long-term objectives will rest on the government acknowledging and approving TBCAs as an important national policy and priority with promise of annual funding, effective implementing mechanisms with matching inputs, building capacity to inspire and instill interest in conservation, and the mitigation of potential threats with effective enforcement, awareness education, active community participation in sustainable resource utilization, and on-theground management.

Transboundary Biodiversity Conservation Involving Forestry Communities and Women at Betung Kerihun National Park (BKNP) in Kalimantan, Indonesia

Ms. Yani Septiani and Ms. Sri Wahyuni



The Betung Kerihun National Park (BKNP) with 816,000 ha is the largest protected rain forest in West Kalimantan and one of the most precious biodiversity ecosystems in Indonesia and in Southeast Asia. Strengthening sustainable conservation management of the Park as a transboundary ecosystem with the Lanjak Antimau Wildlife Sactuary and Batang Ai Natonal Park of Sarawak has been occurring since 1994 through the International Tropical Timber Organization. The project is implemented in close collaboration with local governments, local communities, NGOs and other partners. It is taking into account the fundamental roles that women play in managing and conserving biodiversity and, thus, integrating the gender perspective into all conservation frameworks. The main elements of the implementation strategy to be adopted are:

• Strengthening the policy and enabling environment analysis by increasing understanding among policy makers and relevant stakeholders at the local level of the potential value of integrating gender concerns into conservation of protected areas and climate change mitigation policies in the country.



- Reinforcing applied research capacity for improved ecosystem services by building a "community of practice" and actions that supports women's inclusion in community-based ecotourism programs in trans-boundary ecosystems and women leadership in improving awareness campaigns of conservation issues in trans-boundary areas.
- Improving community-based conservation monitoring systems.

It is expected that experiences from Betung Kehihun National Park will contribute to the development of gender equity in conservation and sustainable management of tropical forests in Indonesia.

Session 4: Natural Resource Conservation Program in the Greater Mekong Sub-region

JICA Cooperation for Nature Conservation

Mr. Hiroshi Nakata, Advisor to the Head of the Cambodia Forestry Administration



The Government of Japan is one of the signatories to the Convention on Biological Diversity (CBD) and it hosted COP 10 in Nagoya in 2010. The Japan International Cooperation Agency (JICA) is the implementing agency for bilateral cooperation. Its support of trans-boundary protected area management across three continents was launched at COP 10. The ITTO projects in Southeast Asia, the Congo Basin, and the Amazon that are funded through JICA include:

- Southeast Asia: Cambodia/Thailand, and Lao PDR.
- Congo Basin: Cameroon/Republic of Congo/Democratic Republic of Congo/Central African Republic/Gabon.
- Amazon: Bolivia/Brazil/Columbia/Ecuador/Guyana/Peru/Surinam/Venezuela.

Collaboration with ITTO/CBD (Example in Southeast Asia):



• Rich wildlife habitats along the Thailand/Cambodia/Lao PDR border.

• Historical efforts made by three countries in collaboration with various development partners, including ITTO and CBD.

• Current Phase III of the project established effective basis for future management of the protected areas in the Emerald Triangle (e.g. – research, periodic dialogues at the provincial level across borders).

• This may lead to bi/tri-lateral arrangements in the near future beyond the Emerald Triangle and the three countries.

South-South Capacity Building for Ecosystem Management in the Greater Mekong Sub-region (GMS): Lessons Learned via Consultative Meeting in Pha Taem National Park, Thailand

Dr. Loo Min Jet, Regional Project Manager cum Focal Point, United Nations Environment Programme-International Ecosystem Management Partnership (UNEP-IEMP), Beijing, China.



The Greater Mekong Sub-region (GMS) includes Southwest China (Yunnan and Guangxi) and the five countries of Southeast Asia - Cambodia, Lao PDR, Myanmar, Thailand and Vietnam. This region is not only a growing economic powerhouse, but also a rich biodiversity area of global importance. The ecosystem health of the region is rapidly deteriorating, however, due to multiple stressors, including poverty, population growth and economic development. As a result, the livelihoods of the poor who are primarily dependent on ecosystem services are declining.

Enhancing ecosystem management capacities is a prerequisite to break the vicious cycle of ecosystem degradation and poverty, which will help promote the integration of the ecosystem approach into national development processes and regional cooperation. The proposed project will initiate a basin-wide process on capacity building for ecosystem management in the GMS. Specific outputs of the project include: (1) Methods and tools for integration of the ecosystem approach into national planning; (2) Increased preparedness and capacity for application of ecosystem approaches in national policy-setting and planning processes in the region; (3) The preparation of an assessment report on capacity requirements of ecosystem management for national development, including an inventory of capacity needs and supplies; and (4) Regional Strategic Framework of capacity building for integration of ecosystem management into basin-wide development strategies.

A capacity building workshop was conducted in Pha Taem National Park at which a range of stakeholders' groups consisting of policy makers at department and provincial levels, park management, local communities, researchers and the Park Advisory Committee at the site level participated in the consultative process of assessing ecosystem services using several tools, including PA-BAT, IPBES conceptual framework, and scenario development, as well as a semi-score card.

At the sub-regional level, trans-boundary illegal wildlife and timber trafficking was identified as one of the gaps in Thailand to be filled to bolster regional cooperation among the Mekong countries. The second transnational issue raised was the trading of plants and animals among bordering countries (Cambodia, Thailand, and Lao PDR). Finally, the use of the Mekong River as a hydropower source for Thailand, which indirectly degrades ecosystems in neighboring countries, was also highlighted as an important issue to consider.

USAID - Natural Resource Conservation Program in the Lower Mekong

Ms. Jedsada Taweekan, representing the USAID Regional Office, US Embassy, Bangkok, Thailand



- Counter Wildlife Trafficking cooperation started across ASEAN countries.
- There is a bridge developing to Africa.
- Wildlife Enforcement Networks (WENs) and NGOs operate separately

ARREST Outputs:

Strengthened Law Enforcement

- Counter-poaching training program developed and accredited (PROTECT).
- WEN counter-trafficking training program developed and nearly accredited (DETECT).
- WEN Species ID tool developed and activated.
- Air Traffic Training (Wildlife Friendly Skies).
- ASEAN legal handbook.
- ASEAN Parliamentarians Engaged.

Behavior Changes

- Behavior Changes Campaigned and Developed in China, Cambodia, Thailand and Vietnam.
- Global TV series on wildlife.
- Online Trade Campaign and Manual.
- Regional Behavior Changes Working Group.
- Strengthening, Sustaining and Expanding Networks (COBRA I, II and III).
 - > USAID LEAD and USFS: Mangrove Carbon Assessments
- Strengthen national GHG inventories; inform forest inventories.

- 2 trainings: 70 Cambodians proficient in mangrove carbon assessments.
- E-book for measuring carbon in mangroves. http://www.lowemissionsasia.org/media/ebooks/mangrove_protocol.swf
- Robust estimate of carbon stocks in Cambodia's mangroves \rightarrow adds to rationale for conservation, management and restoration.

Biodiversity Corridors Conservation Projects and Natural Resource Conservation Program in the GMS, Experiences from GMS Core Environment Program

Mr. Do Dang Teo, Biodiversity Landscapes and Livelihoods Coordinator, ADB Environment Operations Center (ADB/EOC), Trans-boundary Biodiversity Conservation Cooperation



1. Memorandum of Understanding (MoU) between Guangxi (PRC) and Cao Bang (Viet Nam) signed in May 2015.

Goals: Strengthen trans-boundary biodiversity conservation via 5 priorities: (e.g., development of a long-term joint management strategy for trans-boundary biodiversity conservation).

2. MoU between Yunnan (PRC) and Luang Namtha (Laos) signed in September 2015.



Lessons Learned:

- 1. **Political willingness** and **strong commitment** from government.
- 2. Active **participation and contribution** from academics, civil society and the private sector.
- 3. **Enabling conditions** and guidance policy framework.
- 4. **Communications**, awareness raising and **capacity building.**
- 5. Adequate resources and facilities provided for practical implementation.
- 6. " If we don't consider natural capital as important as financial capital, we will be bankrupt" (ADB).

Session 5: International and Regional Biodiversity Conservation Cooperation

The Satoyama Initiative: The Satoyama Initiative: Conserving Biodiversity through Sustainable Management of Production Landscapes

Mr. Wataru Suzuki, Deputy Director, Secretariat of the International Partnership for the Satoyama Initiative (IPSI), Institute for the Advanced Study of Sustainability (UNU-IAS), Tokyo, Japan. wataru.suzuki@unu.edu



The global population is estimated to have reached 6 billion in 1999 and it is projected to reach 9.6 billion by 2050. To meet the resulting demand for food, thirty per cent of the world's land has already been devoted to cultivation. Such drastic changes in land use and human activities have caused an unprecedented loss of biodiversity that will affect human well-being through degradation of ecosystem services. The Convention on Biological Diversity (CBD) COP 10 that was organized in 2010 addressed the issue of not only protecting and conserving wild species, but also provided a much broader view with humans as a part of the life on earth to be sustained into the future. In line with this theme, the conference proposed and adopted the Satoyama Initiative. The Satoyama Initiative is a global effort with the vision of "realizing societies in harmony with nature" through the promotion and sustainable management of "socio-ecological production landscapes and seascapes." The International Partnership for the Satoyama Initiative (IPSI) was established in 2010 as a multi-sectoral and multi-stakeholder partnership to support the implementation of the Satoyama Initiative.

IPSI's membership has grown from its 51 founding members to 184 organizations as of January 2016. Members have recognized the partnership for its democratic actions and encouragement of nature, as well as its global and regional networking meetings, workshops, symposia and other events. Scarce financial resources are still an issue for IPSI and its members, but some successful resource mobilization projects are now underway within the partnership. IPSI's case studies and members' activities are intended to contribute to achieving the Strategic Plan for Biodiversity 2011-2020, the Aichi Biodiversity Targets, and the Sustainable Development Goals in the United Nations' post-2015 development agenda. The IPSI Secretariat is involved in coordinating these events and activities and continues to maintain close collaboration with members and direct the on-going progress of the partnership.

Balancing Land Development and Biodiversity Conservation through Biodiversity Offsetting Program

Associate Professor Nophea Sasaki, School of Environment, Resources and Development, Asian Institute of Technology, Pathumthani, Thailand



Associate Professor Natural Resource Management, SERD



Clearing forest lands for industrial plantations has resulted in rapid deforestation and biodiversity loss. To maintain economic development, balancing land development and biodiversity conservation is essential. The Paris Agreement in 2015 and the entry into force of the Nagoya Protocol in 2014 provide more opportunities to conserve tropical forests for maximum achievement of the benefits to biodiversity, local communities, and industrial crop developers. Using forest inventory data in Cambodia, I will discuss a new approach to minimizing the adverse effects of development on tree species taking advantage of the new emerging scheme of the biodiversity offsetting program, a part of payment for ecosystem services (PES) increasingly available under the Nagoya Protocol on Access and Benefit Sharing and Biodiversity Safeguards of the REDD+ scheme of the United Nations Frameworks Convention on Climate Change. Tree species are assigned values according to their levels of threats as categorized in the IUCN Red List and carbon prices of the related species. Since some countries, including Costa Rica, India, and Vietnam, have begun to introduce policies to encourage PES and REDD+, it is anticipated that more countries will follow suit to include biodiversity offset programs and REDD+ in their respective development plans. This anticipation will eventually result in the establishment of the biodiversity offsetting scheme in tropical countries. In addition to introducing an enabling environment, developing countries will have to develop a database of trees according to the levels of threat for different regions, especially where land development is likely to be implemented.

Lessons Learned: The biodiversity offset program typically involves land protection, restoration, and/or enhancement to ensure that there is no net loss of biodiversity in development. Previous studies suggest that about 63% of the biodiversity bank owners in the United States are willing to participate in this program, which has significantly reduced the clearing of natural forests to just 3,786 ha annually from the previous clearing of 100,000 ha. Although the concept of biodiversity offsetting is relatively new to developing countries, Vietnam was the first country in Asia to introduce the nationwide payment for forest environmental services, or PFES program, in 2010, which has resulted in the protection and restoration of watershed catchments and landscape beauty, and the establishment of forest protection and development funds at both central and provincial levels. On the other hand, the granting of 1.2 million ha as economic land concessions in Cambodia is likely to have adverse effects on biodiversity and, therefore, the biodiversity offsetting program could reduce such biodiversity loss. For the biodiversity offset program to work effectively, it is important that nationwide policies be introduced and enforced.

Strategic Environmental Impact Assessment: Institutionalizing Good Practices for Sustainable Development

Mr. Kim Sobon, Deputy Chief of Monitoring and Evaluation Office, Forestry Administration, Cambodia



A Strategic Environmental Assessment (SEA) is a systematic decision support process that aims to ensure that environmental and other sustainability aspects are considered in policies, plans and programs. In this context, SEA may be considered to be (1) a structured, rigorous, participative, open and transparent <u>environmental impact</u> assessment (EIA)-based process applied to plans and programs prepared by public planning authorities and, at times, private bodies; or (2) a participative, open and transparent non-EIA-based process applied in a more flexible manner to policies prepared by public planning authorities and, at times, private bodies, or a flexible non-EIA-based process applied to legislative proposals and other decision-making policies, plans and programs.

SEA operates within a structured, tiered framework intended to provide more effective and efficient decision-making support for sustainable development and improved governance by providing a substantive emphasis on questions, issues and alternatives to consider in policy, plan, and program (PPP) making.

SEA is an <u>evidence-based</u> instrument designed to add scientific rigor to PPP making by using appropriate assessment methods and techniques. It is an approach to the design and implementation of public policies that follows a continuous process rather than one that functions as a discrete intervention.

SEA Applications:

- Spatial Plans: coastal zone development; urban and industrial development.
- **Multi-intervention Programs:** in instances in which individual appraisal is not costeffective, SEA integrates generic issues with mitigation measures that are applied across the entire program.
- **Cumulative Impacts:** impacts of individual projects are limited, but are significant if linked.
- **Macro Policies:** poverty reduction strategies; tax reforms; public sector reforms; privatization; trade policies.
- Sector Wide Policies: water; waste management; transport planning; energy; infrastructure => national impacts.

Question-Answer Session

The question-answer sessions provided opportunities for participants to extend their understanding of the issues that were introduced in the presentations and expand the discussion of those issues within the broader context of the objectives of the regional conference. Some representative questions and answers are provided in the following overview of the session:

Q1: With regard to forest management experiences in Cambodia: What are the strategies to improve local livelihoods of people in protected areas? What are the challenges? What is the extent of government commitment?



A1: There are two forest management systems in Cambodia in terms of responsible Ministries (MAFF & MoE). The Ministry of Agriculture, Forestry and Fisheries (MAFF) is responsible for the management of protected forests, while the Ministry of Environment is responsible for the management of protected areas, which represent about 20% of the country's land

area. With regard to forest and biodiversity conservation, we have had to confront various issues since the establishment of the protected areas in 1993 because Cambodia still did not have peace at that time. The zoning of the protected areas was prepared in 2000, taking into account green development strategies to engage local people and strengthen effective conservation of biodiversity. The Protected Area Law was subsequently promulgated in 2008 by the National Assembly. The strategies to improve local livelihoods in protected areas include extension activities that stress the importance of biodiversity, vocational training for manufacturing nontimber forest products, and agricultural training. There are large areas of protected areas in the country, but Cambodia lacks financial and human resources. The budget allocation is very critical to ensure that there are actions on the ground rather than an imbalance in the emphasis on responding to reporting and administrative management requirements. The Royal Government of Cambodia has a strong commitment to reform the forest management system through which issues of forest conservation and protection are under the Ministry of Environment and issues of development issues are under the Ministry of Agriculture, Forestry and Fisheries.



Q2: What does the Myanmar government do in terms of biodiversity conservation? What are the drivers of biodiversity loss in the border area? What about gender equality?

A2: We have six departments in Myanmar under the Ministry of Environment and Forest Conservation. Those have different roles in terms of forest conservation and water management. One of the drivers of biodiversity loss in the border area is that there is no fence so that animals are able to go through the forest areas. Drivers also include local people who have relied on biodiversity and forests for their livelihoods. If they are unable to obtain alternative sources of income, their livelihoods will be impacted. Thus, we have to conserve that area and if we cannot promote the livelihoods of those poor people in biodiversity conservation areas, there will be failure at the end of projects. Regarding gender equality, our country is now open and people have free access to information. We have initiated a REDD + program, as well, so gender is one of our priorities. We also have a women's affairs organization, which is a large department that promotes gender equality.



Q3: What is the strategy for trans-boundary cooperation between Vietnam and Cambodia in terms of biodiversity conservation?

A3: The trans-boundary biodiversity conservation project is proceeding with support by WWF and one component of the program emphasizes cooperation between Cambodia and Vietnam on forest and biodiversity conservation along the trans-boundary area.



Q4: What is the progress that has been made by the Lao PDR government to reach its target of increasing forest cover from 40% in 2010 to 70% in 2020?

A4: We actually do not yet have an assessment, but the target of 70% may not be achieved. On the basis of my observations, forest cover was about 50% in 2016.

Q5: What is meant by an inter-sectoral approach in Cambodia? What is meant by progress?

A5: There should be a strategic environmental assessment (SEA) process to ensure crosssectoral planning associated with every development project. Regarding REDD+ strategies, we have proposed comprehensive discussions on cross-cutting issues and resolutions that might be raised by respective ministries and those should be reviewed in terms of cross-sectoral planning in order to protect biodiversity and reduce impacts. Unfortunately, that process yet to be institutionalized.



Q6: How is local knowledge used to conserve biodiversity in China?

A6: We use local knowledge in our plantation program in determining which indigenous species are used by local people, as well as in assessing which NTFP species are used by local communities to improve local livelihoods in our program to protect those NTFPs.



Q7: How should land use planning and poverty reduction be balanced or harmonized based on the research in Thailand?

A7: There are four scenarios. The left-hand, lower side of the graph represents sustainable poverty and stable resources, which is a situation in which people cannot gain more income in the future. In the current version of the land use model, we are unable to modify the intensity of future land use, so we change to another category in which we are able to include more details and definitions. The model, which was developed by the Asian Development Bank (ADB), is from the Netherlands.

Q8: How should the use of biogas be promoted in Indonesia?

A: The socioeconomic impact would be with the local community related to law enforcement and education programs and we attempt to coordinate and cooperate with those programs.

Q9: Is there any social impact related to a Natural Resource Conservation Program in the Lower Mekong region supported by the US?

A9: Regarding the socio-economic impacts of the program, we have developed and shared with communities the information about traditional aspects and conservation, and incorporated all of those elements into one program that includes a small grant program. Those programs are involved with wildlife protection, education - especially for children - and law enforcement.

Q10: What are the criteria used in the landscape approach for balancing land development and providing biodiversity offsets? Would you provide some examples from around the world regarding compensation? What has been the experience of conducting research on the means of converting biodiversity to compensation? Do you have suggestions about soil protection?

A10: In the landscape approach, we have to identify requirements and actions to be accomplished, collect case studies from relevant areas, and conduct more scientific research.

Some examples regarding compensation include a case in Panama in which the company established a corridor for wildlife and a case in Australia in which the government shared the responsibilities with a company for a hydropower dam construction project that was agreed by the government.

When we study biodiversity offsets, we are concerned with the species of timber trees, the forest types, and the habitat ranges of wildlife in order to construct equations and estimate economic values by developing appropriate models.

Microorganisms are very important in the study of biodiversity in the soil, especially with regard to deadwood restoration and those natural functions have to be restored after projects.



Dr. Ma told the panel members to be prepared to address the following questions. Participants were also encouraged to provide comments during the discussion.

Q1: If there is no tropical forest biodiversity conservation, then what? What are the challenges for the future?

Q2: Can forest biodiversity conservation tackle poverty? How can farmers/women get money from forest biodiversity conservation?

Q3: How can we judge the sustainability of the Emerald trans-boundary biodiversity conservation partnership? Any recommendations to increase the long-term sustainability?

Q4: What is the most important message of the Siem Reap Regional Conference on Biodiversity Conservation in Tropical Forests of the GMS that could be proposed as outcomes of the Conference? *That message could be shared at several planned events this year, including CBD SBSTTA and COP 13 in Mexico, as well as the ITTO annual council meeting in Yokohama.* Dr. Ma extended his appreciation to participants for their contributions to the success of the "Regional Conference on Biodiversity Conservation in Tropical Forests of the Greater Mekong Sub-region."

Principal Conclusions and Messages from the Regional Conference

- 1. **Increasing the value and area of global perspectives on forests** is an objective of the Aichi Targets (e.g., Target 5, 7, 11, 15) of the Strategic Plan for Biodiversity 2011-2020, the 2030 Agenda for Sustainable Development (e.g., SDG 15), and the Paris Agreement (e.g. Article 5). Such global targets and goals are achievable with due focus on conservation and sustainable forest management, considering that "1.6 billion people depend on forests for their livelihood" and "80% of global biodiversity lives in forests." The 2015 FAO Forest Resources Assessment report indicates, however, that forests continue to be lost at a considerable rate in tropical countries.
- 2. Intact forests present a global opportunity to conserve biodiversity. Intact forests account for 1 billion ha, but relatively little of that area is protected. Intact may be considered to be the opposite of deforestation and degradation. Intact forest areas in tropical countries have to be maintained with the support of the international community as relatively intact to support many of the large mammal species that occur there.
- 3. Challenges for forest biodiversity conservation include poverty, political commitment, enabling policies, governance and legal frameworks, including land use and tenure policies, strong institutions, adequate human and financial resources, effective forest law enforcement to address illegal logging and the illegal trade of wildlife, and cooperation and enhanced understanding between and among stakeholders.
- 4. **Sound land use policy and security of tenure of gazetted forests** are crucial for achieving biodiversity conservation and sustainable forest management objectives. Conservation forests, protection forests, and production forests must be set aside to ensure biodiversity conservation at different scales in forest landscapes. The securing and demarcating of permanent forest estates and the clarification of tenure rights are essential elements in efforts to ensure sustainable forest management and the prevention of unplanned deforestation.
- 5. Mainstreaming biodiversity in the tropical forest sector is facilitated by means of national biodiversity strategies, action plans, and targets aimed at achieving the forest-related Aichi Biodiversity Targets. The conservation and sustainable use of biodiversity in tropical forests must be supported with political commitments, policies and laws based on national strategies, and short-, medium-, and long-term targets for establishing and achieving biodiversity conservation and sustainable use goals. Strong national targets that clearly set out commitments and responsibilities of stakeholders are required. Experience demonstrates that the development of national forest biodiversity strategy and action plans requires sufficient time for meaningful stakeholder consultations, as well as effective interagency coordination.
- 6. Strengthening sustainable forest management in conservation, protection and production forests is crucial for maintaining ecosystem functions at the landscape and

stand scales, especially considering the essential role of biodiversity in ecosystem functioning.

- 7. **Restoration of degraded forest ecosystems** may be linked to both global and regional initiatives, including the Global Partnership on Forest Landscape Restoration, the ITTO/CBD Collaborative Initiative on Tropical Forest Biodiversity, and the Forest Ecosystem Restoration Initiative, as well as other relevant programs, including various REDD+ initiatives and the International Partnership for the Satoyama Initiative.
- 8. Landscape-based ecosystem management of protected areas is increasing to support biodiversity corridors to landscape management at all landscape levels through global, regional, and national initiatives, including the International Partnership for the Satoyama Initiative (IPSI) aimed at revitalizing and sustainably managing production landscapes, the UNEP-IEMP Greater Mekong Sub-region (GMS) initiative, and the Asian Development Bank's GMS Core Environment Program, as well as the Heart of Borneo trans-boundary biodiversity conservation program promoting the effective management of forest resources and the conservation of protected areas, productive forests, and other sustainable uses through improved sustainable forest management and diversified community development programs.
- 9. Conservation may benefit communities, but efforts must be sustained and must lead to self-reliance. Poverty may be alleviated through integrated forest biodiversity conservation and development activities that consider livelihood improvement to be a high priority in protected areas. The participation of stakeholders and, in particular, local communities, is a necessary component of ensuring the longevity of on-going activities. Exploring the sense of ownership by local communities and effective co-management systems that integrate traditional and local knowledge in forest landscapes, including logging concession areas, are required to ensure the effective and successful implementation of conservation programs.
- 10. **Innovative financing mechanisms** are essential for biodiversity conservation. Several pilot REDD+ projects that aim to trade carbon offsets through voluntary carbon markets have been developed in the Grater Mekong Sub-region. Research for innovative financing mechanisms, including development of biodiversity offsetting programs and carbon enhancement and emissions reductions co-benefits programs, is encouraged. Payments for ecosystem services provided by tropical forests are essential to increase commitments to forest biodiversity conservation, sustainable forest management, and improved community livelihoods.
- 11. Strengthening forest law enforcement and good governance in protected forests is an urgent concern. Protected areas are confronted with significant threats from illegal loggers and hunters in the Grater Mekong Sub-region and coordination and collaboration among law enforcement agencies, as well as other concerned stakeholders, is critical for effective enforcement of forest and wildlife crimes occurring in and around protected areas. National efforts to strengthen law enforcement include the "National Wildlife Law Enforcement Task Force (NWLETF)" in Myanmar, while at the regional level there is the ASEAN WEN (Wildlife Enforcement Network) that is implemented in the Sub-region with the support of USAID.
- 12. **Research on social aspects of conservation and sustainable forest management** should be further strengthened. Participating countries in the conference (Cambodia, China, Indonesia, Lao PDR, Malaysia, Myanmar, and Vietnam) have discussed their commitments

and initiatives in conservation and sustainable forest management involving indigenous peoples and local communities. Research efforts should now be directed to strengthen ecosystem services production from tropical forest ecosystems (e.g., associated with water yields, sediment and nutrient retention, carbon storage, and ecotourism), including optimizing resource allocation for protection of trans-boundary species in biodiversity 'hotspots.' The research should be used to provide answers to several important questions, including how to strengthen tropical forest ecosystem services and their values; climate change adaptation and how to increase the participation of indigenous peoples and local communities, including the empowering of women; how to enhance benefits-sharing mechanisms; and how to scale up national-level social and environmental impacts assessment and risks management systems.

- 13. Good communications are essential. Learning, experimentation, and dissemination of information and lessons learned and technology transfer are all important for the conservation and sustainable use of biodiversity. The capacities and capabilities of stakeholders, especially government authorities and local communities, should be understood prior to developing training programs and organizing conferences or workshops. Strong communication skills are prerequisite to delivering a message on the sense of urgency of conservation to policy makers. Better understanding by the general public and mass media regarding the improved sustainability of tropical forests is required. The sharing of information on the different approaches that link biodiversity conservation and livelihood improvements at national and sub-national levels would also be useful for in-country and cross-country learning. There is an increasing recognition of the importance of contributing to on-going discussions with respect to global frameworks such as the CBD and the IPBES.
- 14. **Strong leadership and interested and motivated personnel** are critical for inspiring conservation. Capacity building to cultivate interest in conservation is required to enhance people's participation in conservation management. Communities depend on external assistance and efforts to achieve self-reliance and conservation objectives are enhanced by motivated leaders. Success must be measured by results and not by money spent; communities want to see results that bring benefits.
- 15. For effective management of protected areas, collaboration with stakeholders at local, regional and national levels is essential. Effective strategies for protected areas management include universal-learning, -sharing and -enhancing; diversity-improving livelihoods, especially of local communities; and dignity–respecting values, beliefs and natural heritages.
- 16. **Trans-boundary biodiversity conservation areas (TBCAs)** promote regional cooperation and recognize conservation as a shared responsibility. Enabling large contiguous forest areas for conservation is of critical importance amid disappearing tropical forests. ITTO projects and trans-boundary conservation cooperation contribute significantly to conservation and livelihood improvement and should be sustained and strengthened. In general, the political support of every participating country is essential to the ultimate success of trans-boundary conservation and the development of a compatible, shared vision. The development of management plans in collaboration with relevant government agencies or departments is also important to expand outreach and increase political support for the effective implementation of those plans.
- 17. Scaling up successful TBCA strategies with sustained government recognition and political will. Awareness raising campaigns on biodiversity conservation are indispensable as policy makers and local communities are made aware of the role of conservation in

sustainable development. Community empowerment is essential and incentives for local communities (e.g., housing, sustainable wood energy sources such as fuelwood and biogas, gravity-fed water, suspension bridges, community halls, education facilities) are important to sustain. Training on appropriate technologies for eco-friendly livelihood activities should be assigned priority to support food security (fruit crops, ponds and tagang fisheries in Sarawak) and reduce pressures on protected areas. Local conflict resolution systems, in particular land tenure conflicts between different ethnic tribes, have to be well-established. Local institutional strengthening is required and enhanced communication and coordination among central and local government institutions are critical, as is the effective engagement of NGOs and academics.

- 18. **Progress in promoting trans-boundary conservation globally** depends on enhanced levels of cooperation between the international community, governments, and civil society organizations, and requires both bottoms-up and top-down engagement. Trans-boundary biodiversity cooperation in the Emerald Triangle Protected Forests Complex between Cambodia, Lao PDR, and Thailand, as well as in the state of Sarawak, Malaysia and province of West Kalimantan, Indonesia, for the protection of trans-boundary habitats of wide-ranging wildlife species in those cross-border areas, serve as useful examples. JICA's Cooperation Initiatives for Nature Conservation has collaborated with ITTO in the three tropical regions with publication of a Reference Book for trans-boundary protected area management.
- 19. Lessons learned from trans-boundary biodiversity cooperation in the Emerald Triangle Protected Forests Complex include the importance of the establishment of institutional cooperation to provide a solid foundation for interchange. Technical cooperation between the Cambodia Forestry Administration and the Thailand Royal Forest Department has been instrumental, with much of the early emphasis on project activities directed to expanding cooperation between the two countries. Support from higher levels of the two organizations, such as the dedicated contributions of H.E. Dr. Chheng Kimsun, Delegate of the Royal Government, Head of the Forestry Administration, Cambodia, has facilitated that technical cooperation. JICA, in Cambodia, and Kasetsart University, in Thailand, have assumed critical roles in expanding technical cooperation. The participation of Lao PDR in the transboundary biodiversity cooperation has been explored through Champasack University amid the difficulty of engaging relevant Lao PDR government departments. The engagement of the CBD Secretariat under the ITTO/CBD Joint Initiative on Tropical Forest Biodiversity has scaled up substantially the visibility of the Emerald Triangle Trans-boundary Biodiversity Cooperation Project in international conservation communities.
- 20. **Capacity building** in tropical countries is the most critical required element to fully achieve biodiversity conservation and sustainable forest management in the context of the Strategic Plan for Biodiversity 2010-2020 and its Aichi Targets, as well as Sustainable Development Goal 15 of the 2030 Agenda for Sustainable Development ("sustainably manage forests, combat desertification, and halt and reverse land degradation and biodiversity loss."). Governments continue to support and promote conservation by establishing more protected forests, but these are often not adequately managed. Vacant positions are filled and new ones are created, but the training requirements to increase understanding and gain important experience and exposure to the principles of sustainable management is often overlooked. Instilling interest in conservation and field work is critical and opportunities for instilling such interest must be provided.

Photos highlighting the field visit during the regional conference. Post-conference field visit to *Dalbergia cochinchinensis* Seed Source area and Forest Landscape Restoration sites.













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The terrestrial and aquatic ecosystem biodiversity throughout the region contributes to every aspect of efforts to achieve sustainable economic growth and development, especially with regard to the consideration of: Livelihoods, Employment and Poverty Alleviation, Food Security, Nutrition and Health, Education, Gender Equality, Water, Energy, Infrastructure, Equality and Inclusiveness, Sustainable Production, and Climate Change.

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