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# Programme Overview

*APFNet's Workshop on Agroforestry for Rural Development*

*(November 12-22, 2012)*



**Sponsored by: Asia-Pacific Network for Sustainable Forest Management and Rehabilitation (APFNet)**

**Organized by: APFNet Kunming Training Center (APFNet-KTC)  
Yunnan Academy of Biodiversity (YAB)  
Southwest Forestry University (SWFU)**

**- Yunnan, China -**

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<b>Attached files</b>	<b>22</b>
1). <i>Participant's Report received before 8<sup>th</sup> November 2012</i>	
2). <i>PPT files provided by participants before 8<sup>th</sup> November 2012</i>	

## ***APFNet's Workshop on Agroforestry for Rural Development***

**( November 12-22, 2012)**

### ***Background***

Forest is one of the most important natural resources that sustains the livelihoods of communities. Among various forms of forestry, agroforestry offers an effective solution for ecological rehabilitation while generating income for rural communities. Diversed farm products can be produced, such as high-value timber, fruits, medicinal products and other non-timber forest products (NTFPs). Agroforestry has the potential to meet short-term livelihood needs with long-term environmental conservation goals.

Building on the APFNet's workshop on Forestry and Rural Development in 2009 and Community Forestry Development in the Context of Climate Change in 2011, this workshop aims to share successful experience and promote the development of agroforestry in the Asia-Pacific region. It also aims to review community forestry from a practical perspective and identify effective (or ineffective) models and solutions that can be imitated by other communities.

### ***Objectives***

- Review the scientific, environmental, social, cultural, economic and regulatory dimensions of agroforestry.
- Share good practices and lessons learned in agroforestry in the past decade.
- Identify the problems/challenges associated with applying existing knowledge in promoting sustainable agroforestry.

### ***Main Topics***

- Overview of socio-economic and environmental aspects of agroforestry
- The role of agroforestry in community forestry development in the Asia- Pacific region
- Forestland tenure reform and institutional arrangement for promoting agroforestry
- Traditional agroforestry systems that meet today's needs in sustainable environment and economic production

## Course Structure and Training Approaches

- **Keynote lectures:** keynote lectures will be delivered by invited resource persons and will cover fundamental and topical issues related to agroforestry;
- **Participant presentation:** participants are required to make presentations during the workshop based on their case study;
- **Working groups and discussions:** participants will be encouraged to take part in the training actively via the lectures and group discussions;
- **Field visits:** Field visits will showcase a variety of performances and practices of agroforestry after the indoor session.
- **Language:** English

## Targeted Participants

The workshop is best suited for policy makers and managers of community forests, and will be limited to a maximum of 15 individuals to ensure ample learning opportunities and adequate exchange of ideas. Each participant is required to submit a report (.doc) and a presentation of slides (.ppt) of a case study based on the proposed outline in the attached annex of workshop announcement for presentation during the workshop.

## Expense and Cost of Participation

The workshop organizer will cover the training costs of international travel (round-trip economy class air tickets), full board accommodation, field visits, as well as small amount of per diem during the workshop. Other expenses such as visa application expenses and personal expenses will NOT be covered.

## Workshop Venue:

Golden Spring Hotel (金泉大酒店)



## Note:

1. Meeting room on the 2<sup>nd</sup> Floor of the hotel
2. Dining hall for breakfast and dinner on the 2<sup>nd</sup> Floor of the hotel
1. Each room has access to the Internet, and international phone calls can be made at the reception desk.

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***Sponsor and Organizers***

The workshop is fully sponsored by the APFNet, with technical inputs from the collaborators of APFNet, and organized by APFNet Kunming Training Center (APFNet-KTC), Yunnan Academy of Biodiversity (YAB) and Southwest Forestry University (SWFU) of China.

***Workshop Advisors***

- 1) Mr. Qu Guilin, Executive Director of APFNet Secretariat.
- 2) Mr. Lu De, Assistant Executive Director of APFNet Secretariat.
- 3) Prof. Chen Baokun, Director General of SWFU Administrative affairs Board.
- 4) Prof. Li Yonghe, Deputy Director General of SWFU Administrative affairs Board, Executive director of Yunnan Academy of Biodiversity at Southwest University (YAB-SWFU).

***Workshop Secretariat/Working Group***

- 1) Ms. Wang Qian, Program Officer, APFNet Secretariat.
- 2) Ms. Rosalie McConnell, Senior Consultant/Technical Support, APFNet Secretariat.
- 3) Prof. Shen Lixin, executive director of APFNet Kunming Training Center (APFNet-KTC), Deputy Director, Yunnan Academy of Biodiversity at Southwest University (YAB-SWFU).
- 4) Prof. Li Maobiao, Deputy Director, Yunnan Academy of Biodiversity at Southwest University (YAB-SWFU).
- 5) Dr. Zhang Yuan, Academic Officer, APFNet Kunming Training Center (APFNet-KTC), Yunnan Academy of Biodiversity at Southwest University (YAB-SWFU).
- 6) Ms. Wan Jun, Administrative Officer, APFNet Kunming Training Center (APFNet-KTC), Yunnan Academy of Biodiversity at Southwest University (YAB-SWFU).
- 7) Mr. Jiao Yijiao, Programme assistant, APFNet Kunming Training Center (APFNet-KTC).
- 8) Ms. Wang Qin, Southwest Forestry University (SWFU)

***\*Contact Persons in Case of Emergency***

1. Dr. Zhang Yuan, (+86)-15887084973 (mobile)
2. Prof. Shen Lixin, (+86) 13708468944 (mobile)

## 2. Workshop Schedule

### Part 1: Indoor session (12-17 & 22 November, 2012)

(Golden Spring Hotel, Kunming City)

Date	Time	Contents	Remarks
11 Nov. Sun.	Whole day	<i>Participants arrival and registration</i>	MODERATOR: APFNet-KTC
12 Nov. Mon.	8:00-8:30	<b>BREAKFAST</b>	2nd Floor of Hotel
	8:30-9:00	-- Leave for Southwest Forestry University by Bus.	- APFNet-KTC - YAB/SWFU - Prof. Shen
	9:00-10:20	<b>-- <i>The Inauguration of APFNet Kunming Training Center and Workshop Opening Ceremony.</i></b>  Distinguished Guests Speech : <ul style="list-style-type: none"> <li>● Ms. Yin Hong, Vice-Minister, State Forestry Administration, P.R.China</li> <li>● Mr. Kong Cuizhu, Vice-Governor, Yunnan Provincial Government, P.R.China</li> <li>● Mr. Qu Guilin, Executive Director, APFNet Secretariat</li> </ul>	
	10:20-10:30	<b>Group Photo</b>	
	10:30-11:50	<b>Visit the campus of Southwest Forestry University (SWFU)</b>	MODERATOR: - Prof. Shen
	12:00-13:00	<b>LUNCH at SWFU</b>	
	13:00-13:30	Go back to Golden Spring Hotel by Bus	
	14:30-15:00	<b>Workshop Warming up</b> -- Participants' self-introduction	MODERATOR: - Ms. McConnell
	15:00-15:40	<b>Group discussion:</b> Expectation to the workshop.	
	15:40-16:00	<b>Coffee break</b>	
	16:00-16:30	<b>Presentation about group discussion</b>	
	16:30-17:10	China's forestry and forestland tenure system -- Prof. Shen, APFNet-KTC, YAB-SWFU	
	17:10-17:30	<b>Wrap-up</b>	MODERATOR: - Ms. McConnell
	18:00-19:00	<b>WELCOME DINNER</b>	2nd Floor of Hotel
13 Nov.	8:00-8:30	<b>BREAKFAST</b>	2nd Floor of Hotel

Tue.	8:30-9:00	Morning Welcome and Daily Review	MODERATOR: - Ms. McConnell
	9:00-10:30	<b>Keynote Lecture 1:</b> A review of socio-economic and environmental aspects of agroforestry -- Dr. Dietrich Schmidt-Vogt, ICRAF-KIB,CAS	MODERATOR: - Dr. Schmidt-Vogt
	10:30-11:00	<b>Tea Break</b>	
	11:00-11:40	<b>- Q&amp;A and group discussion</b>	
	12:00-13:00	<b>LUNCH(buffet)</b>	1st Floor of Hotel
	14:00-15:30	<b>Participant Presentation:</b> -- Bangladesh -- Cambodia	MODERATOR: - Ms. McConnell
	15:30-16:00	<b>Tea Break</b>	
	16:00-17:00	<b>Participant Presentation:</b> -- Fiji -- Indonesia (Each presentation: 30 min. & Discussion: 15 min.)	
	17:30-18:00	<b>Wrap-up</b>	MODERATOR: - Ms. McConnell
	18:00-19:00	<b>DINNER</b>	2nd Floor of Hotel
14 Nov. Wed.	8:00-8:30	<b>BREAKFAST</b>	2nd Floor of Hotel
	8:30-9:00	Morning Welcome and Daily Review	MODERATOR: -Ms. McConnell
	9:00-10:30	<b>Keynote Lecture 2:</b> Traditional agroforestry systems and their adaptation for sustainable land use and forest management -- Dr. Dietrich Schmidt-Vogt, ICRAF-KIB,CAS	MODERATOR: - Dr. Schmidt- Vogt
	10:30-11:00	<b>Tea Break</b>	
	11:00-11:40	<b>- Q&amp;A and group discussion</b>	
	12:00-13:00	<b>LUNCH(buffet)</b>	1st Floor of Hotel
	14:30-15:30	<b>Participant Presentation:</b> -- Laos -- Malaysia	MODERATOR: - Ms. McConnell
	15:30-16:00	<b>Tea Break</b>	
	16:00-17:00	<b>Participant Presentation:</b> -- Mongolia -- Myanmar (Each presentation: 30 min. & Discussion: 15 min.)	
	17:30-18:00	<b>Wrap-Up</b>	MODERATOR: -Ms. McConnell
	18:00-19:30	<b>DINNER</b>	2nd Floor of Hotel
15 Nov.	8:00-8:30	<b>BREAKFAST</b>	2nd Floor of Hotel

Thur.	8:30-9:00	Morning Welcome and Daily Review	MODERATOR: - Ms. McConnell
	9:00-10:30	<b>Keynote Lecture 3:</b> The role of agroforestry for community forestry development in the Asia-Pacific region - Dr. Dietrich Schmidt-Vogt, ICRAF-KIB,CAS	MODERATOR: - Dr.Schmidt-Vogt  - Ms. McConnell
	10:30-10:50	<b>Tea Break</b>	
	10:50-11:20 11:20-11:50	- <b>Q&amp;A and group discussion</b> - <b>Wrap-Up</b>	
	12:00-13:00	<b>LUNCH(buffet)</b>	1st Floor of Hotel
	<b>Free</b>		
16 Nov. Fri.	8:00-8:30	<b>BREAKFAST</b>	
	8:30-9:00	Morning Welcome and Daily Review	MODERATOR: - Ms. McConnell
	9:00-10:40	<b>Keynote Lecture 4:</b> Organic Agroforestry as sustainable land use system for pro-poor development in Upland Areas. -- Ms. Yan Mei, ICRAF/China Program - Q&A and group discussion	MODERATOR: -Ms. Yan Mei
	10:40-11:10	<b>Tea Break</b>	
	11:10-11:55	<b>Participant Presentation:</b> -- Nepal (Presentation: 30 min. & Discussion: 15 min.)	
	12:00-13:00	<b>LUNCH(buffet)</b>	1st Floor of Hotel
	14:00-15:30 15:30-16:00 16:00-17:00	<b>Participant Presentation:</b> -- Peru -- Thailand <b>Tea Break</b> <b>Participant Presentation:</b> -- Philippines -- PNG (Each presentation: 30 min. & Discussion: 15 min.)	MODERATOR: - Ms. McConnell
	17:30-18:00	<b>Wrap-Up</b>	
	18:00-19:30	<b>DINNER</b>	2nd Floor of Hotel
17 Nov. Sat.	8:00-8:30	<b>BREAKFAST</b>	2nd Floor of Hotel
	8:30-9:00	Morning Welcome and Daily Review	MODERATOR: - Ms. McConnell



	9:00-10:00	<b>Keynote Lecture 5:</b> Ancient Arbor Tea Plantation and its Management -- Dr. Michelle Wong, Institute of Geographic Sciences & Natural Resources Research, CAS. -- Q&A and discussion	MODERATOR: - Dr. Wong
	10:00-10:20	<b>Tea Break</b>	
	10:20-11:50	<b>Participant Presentation:</b> -- Vietnam -- China (Each presentation: 30 min. & Discussion: 15 min.)	
	12:00-13:00	<b>LUNCH(buffet)</b>	1st Floor of Hotel
	14:00-15:00	<b>Group discussion ( 3 group)</b> -- Risks issues and challenges associated with agroforestry for rural development -- Explore opportunities to develop Potential regional cooperation.	MODERATOR: - Ms. McConnell - Prof. Shen
	15:00-15:40	<b>Group presentation</b>	
	15:40-16:00	<b>Tea Break</b>	
	16:00-16:30	<b>Indoor session wrap-up</b>	
	16:30-17:00	<b>General review of field trip activities</b>	
	18:00-19:30	<b>DINNER</b>	2nd Floor of Hotel
18-21 Nov. Sun.- Wed.	<b>Field trip by Bus to Pu'er City</b>		MODERATOR: - Prof. Shen
22 Nov. Thur.	8:30-9:00	<b>BREAKFAST</b>	2nd Floor of Hotel
	9:00-10:30	- Workshop Evaluation - Farewell remarks by participants	MODERATOR: - Ms. McConnell
	10:30-11:00	<b>TEA BREAK</b>	MODERATOR: - Ms. McConnell - Prof. Shen
	11:00-11:30	<b>Closing Ceremony</b> - Presentation of workshop certificates	
	11:40	<b>LUNCH(buffet)</b>	1st Floor of Hotel
	<b>Free</b>		
	17:30-19:00	<b>Farewell Dinner</b>	
23 Nov. Fri.		<b>Participants Departure</b>	MODERATOR: YAB/SWFU

## Part 2: Program Schedule for Field Sites

- Nov. 18**     **08:30 - 16:00 Drive from Kunming to Pu'er City.**  
 Take lunch midway at 12:30 - 13:30 in Mojiang County.  
**13:30 - 16:00**  
 Check in at Shuangfeng Hotel (Double Phoenix Hotel)  
**16:30 – 17:30**  
 Introductory meeting with Pu'er Municipal Government and Pu'er Forestry Bureau at Hotel Meeting Room  
 Introduction of local and international representatives and participants and brief introduction of forest management in Pu'er by local officials.  
**18:00**  
 Welcome dinner hosted by Pu'er Municipal Government.
- Nov. 19**     **Site Visits:**  
 1. The propagation and cultivation base for rare and high value medicinal plants in Nanben Village  
 2. Afforestation Project in Wangzhangshan Forest Farm  
 3. The Simao Port on the Lancang-Mekong River artery and a distant view of Nuozhadu Provincial Nature Reserve  
**Lunch in Simao Port at 12:30 - 13:30**  
**Site Visits:**  
 4. Biodiversity Science Museum  
 5. China Pu'er Tea Research Institute  
**Dinner at 18:00**
- Nov. 20**     **Departure from Hotel at 8:30**  
**Site Visits:**  
 6. Demonstration site of Coffee and Tea based agroforestry  
 7. Caiyanghe Provincial Nature Reserve  
 8. Demonstration site of Simao Pine plantation  
 9. China Pu'er Tea Museum  
 10. 10. High Value Medicinal Herbs cultivation under nature forests
- Nov. 21**     **9:00-16:00 Drive from Pu'er City back to Kunming**  
 12:00     Lunch in Mojiang County  
 16:00     Check in at Golden Spring Hotel  
 18:30     Dinner at Hotel

### 3.List of Participants

No.	Name	Gender	Economies	Title	Institution	Email
1	Mohammad Shah-E-Alam	M	Bangladesh	Deputy Conservator of Forests	Forest Department, Ministry of environment and forest	cfdnkl@gmail.com
2	Ma Vuthy	M	Cambodia	Deputy chief	Forestry Administration, Ministry of Agriculture Forestry and Fisheries	hengborany@yahoo.com
3	Vinesh Prasad	M	Fiji	Agroforestry and Communications Technician	Secretariat of the Pacific Community	Vineshp@spc.int
4	Leti Sundawati	F	Indonesia	Senior Lecturer	Department of Forest Management, Faculty of Forestry, Bogor Agricultural University	fahutan@ipb.ac.id
5	Phomma Pathoummavong	M	Laos	Head	Forest Certification Unit, Department of Forestry	p.pathoummavong@yahoo.com
6	Yusuf bin Yahaya	M	Malaysia	Senior Assistant Director of Forestry	Forestry Department Peninsular Malaysia Headquarters, Kuala Lumpur	yusuf@forestry.gov.my
7	Baatarbileg Nachin	M	Mongolia	Professor	Department of Forest Sciences, National University of Mongolia	baatarbileg@num.edu.mn
8	Moe Naing Oo	M	Myanmar	Projector Officer	The Lutheran World Federation	moenaing111@gmail.com
9	Bodh Raj Subedi	M	Nepal	Forest Officer	District Forest Office under the Derpartment of Forests, Government of Nepal	bodhsubedi@gmail.com
10	Carolina Liz Vidal Véliz	F	Peru	Engineer specialist in forestry affairs	General Direction of Forestry and Wildlife	cvidal@minag.gob.pe
11	Julie N. Tanguilig	F	Philippines	Senior Forest Management Specialist	Department of Energy and Natural resources-Forest Management Bureau	jntanguilig@yahoo.com
12	Mandawali June	F	PNG	Silviculture Officer	PNG Forest Research Institute	jmandawali@fri.pngfa.gov.pg
13	Somdet Champee	M	Thailand	Forestry technical officer	Royal Forest Department, ministry of natural resources and environment of Thailand	champee25@yahoo.com
14	Nguyễn Thị Thuỳ	F	Vietnam	Researcher	Silviculture Technique Research Division, Vietnamese Academy of Forest Science	nguyenthuyfuv@gmail.com
15	Li Jianqin	F	China	Associate professor	Southwest Forestry University	jqltc@yahoo.com.cn

## **4. Resource persons – personal profile**

### **1) Dr. Dietrich Schmidt-Vogt** (Email: schmidt-vogt@mail.kib.ac.cn)

Geographer and fellow of the Alexander von Humboldt-Foundation, is a CIM-Integrated Expert at the Centre of Mountain Ecosystem Studies, PH.D supervisor at Heidelberg University in Germany and Asian Institute of Technology (AIT) in Thailand, as well as a research Professor of World Agroforestry Centre (ICRAF) Kunming Office at the Kunming Institute of Botany, Chinese Academy of Sciences.

He was previously affiliated for seven years as Associate Professor with the Asian Institute of Technology (AIT), Thailand, and before that as Senior Lecturer with the South Asia Institute of Heidelberg University, Germany. He obtained his doctoral and postdoctoral degrees at Heidelberg University, Germany, and has 30 years of research experience in the Himalayan region and in Southeast Asia. His research interests include forest management, agro-forestry and forest-farming interactions, biodiversity conservation, land use change, and development studies. He has focused especially on the study of traditional land use systems, such as shifting cultivation, on forests in mountainous areas of Asia, and on the role of secondary forests in landscapes and livelihoods.

Since joining the ICRAF Kunming Office at Kunming Institute of Botany in 2009, he has involved in transboundary projects in the Mekong region which focus on developing biodiversity and carbon assets in multifunctional landscapes, on the impact of REDD+ policies on forests and livelihoods, and on agroforestry systems with nitrogen-fixing tree species. He has published extensively in a wide range of international journals, especially in Mountain Research and Development, the Journal of Tropical Forest Science, Forest Ecology and Management, Regional Environmental Change, and the Journal of Environmental Management. At Heidelberg University and at AIT, he has acquired extensive experience in teaching and supervising Master and PhD students. During his time at AIT he has built up an extensive regional network of colleagues and former students all over the Mekong region. He also has extensive experience in capacity building for academic institutions in Southeast Asia, helping to develop curricula on Natural Resources Management for Royal University of Phnom Penh, Cambodia, National University of Laos, Hanoi Agricultural University, and Andalas University, Indonesia.

### **2) Ms. Yan Mei** (Email: yanmei@mail.kib.ac.cn)

MS. Yan Mei acquired her master degree in development management from Asian institute of management in the year 2007. Since then, she had been employed by World Agro-forestry (ICRAF) China. In the past 5 years, as Project manager, she engaged in various project management work. The major projects she took part in includes: Upland Livelihoods in Southwest China--Pilot Project for Sustainable Management of Non-Timber Forest Products (NTFPs) and Promoting Eco-Health Approach in Agrarian Transformation. Besides, she also actively engaged in research, two working papers of her were already publicized on authoritative portal website.

### **3) Dr. Michelle H. G. Wong** (Email: huanghz@igsnrr.ac.cn)

Dr. Michelle H. G. Wong was graduated from Yunnan University in Ecology in 2010, and is currently a post-doctoral fellow at the Institute of Geographic Sciences and Natural Resources

Research, Chinese Academy of Sciences, Beijing. She has a background in environmental management and plant ecology, and has been studying Yunnan vegetation using dendrochronological and modelling techniques in the past few years. Recently, she has been collaborating with Yunnan Academy of Biodiversity to research the ancient arbor tea plantation and terrace tea plantations in southern Yunnan.

**4). Ms. Rosalie McConnell** (Email: mcconnellrosalie2@gmail.com)

Ms. McConnell spent the last 8 years in the Forestry Department of the Food and Agriculture Organization of the United Nations (FAO) in Rome, Italy. Her responsibilities included advising senior management on policy aspects of international agreements related to forests, supporting the office of the Assistant Director-General, and compiling two editions of the department's flagship publication, State of the World's Forests. She also led a study in 10 countries in Africa on the links between national forest programs and poverty reduction strategies and produced a report of key findings and recommendations which was distributed worldwide in two languages. Prior to her assignment in Rome, Ms. McConnell was Senior Policy Advisor in the International Affairs Division of the Canadian Forest Service for many years. Presently, she is working for APFNet as senior consultant.

**5). Prof. Shen Lixin** (Email: yafslx@gmail.com)

Prior to joining Yunnan Academy of Biodiversity at Southwest Forestry University (YAB-SWFU) as vice director in March 2011, Prof. Shen Lixin was assistant president of Yunnan Academy of Forestry (YAF) and director of Forests in its research institute before worked for National Plateau Wetland Research Center (NPWRC) in June 2010. He has conducted research for more than twenty years on forest resources management, wetlands and protected area management, degraded forest restoration, impact assessment, upland agroforestry, poverty alleviation and rural livelihood development. In addition, he has worked on international projects for biodiversity conservation through protected area management in southwest China, southeast Asian and Northeast India as well as on cross-cultural, cross-border projects involving trans-boundary resources use and conservation.

## 5. Profile of Kunming City

Kunming, the capital of Yunnan Province (Fig.1), dates back to a history of more than 2400 years and owes its importance as the gateway to the celebrated Silk Road that facilitated trade with Tibet, Sichuan, Myanmar and India. Today, the city is the political, economical and cultural center of Yunnan and the provincial center for transport, science and technology. Consequently, it has become the most popular spot for tourism in Southwest China. Kunming enjoys a pleasant climate and does its best to live up to its title of 'the City of Eternal Spring'. The average temperature is expected to be 18°C~26°C during the season of the training workshop, with slightly lower temperatures in the morning and evening.



Fig.1

Some 26 ethnic minorities such as Yi, Bai, Miao, Dai, Hani inhabit the region and each group has its own festivals - the Torch Festival and the Golden Temple Fair, for example. The hugely successful 1999 International Horticultural Exposition enhanced Kunming's influence in the world and, as a result, more and more foreigners come to discover this enchanting part of China. Its alluring highland scenery, bewitching karst landform, varied and exotic habitats and customs, and places of historical interest can be found at major scenic spots such as Dianchi Lake, Stone Forest, the Village of Ethnic Culture, and Grand View Pavilion. Kunming is also renowned for many delicious local dishes, the most famous being Across the Bridge Rice Noodles and Xuanwei Ham. You can enjoy them both at local restaurants or the night markets where you will find many pubs, bars and cafes that serve good quality meals.

## **6. Field trip outline**

### **A Brief introduction to Pu'er Municipality**

Pu'er City is situated in Southwest region of Yunnan Province and administers one district and nine counties over a jurisdiction area of 45,385 km<sup>2</sup>. It is the largest prefecture in Yunnan in terms of area. Pu'er City is 470 km from Kunming. Pu'er Prefecture borders the Laos and Vietnam in the Southeast and adjoins Myanmar in the Southwest, sharing an international border of 625 km with these economies. The Lancang (Mekong) River, Red River and Nankang River flow to the neighboring economies. A significant segment of the famous Southern Silk Road traverses Pu'er City. The total population of Pu'er Municipality is 2.37 million, of which 1.44 million are ethnic minority peoples, accounting for 61% of the total. There are 36 ethnic minorities in the prefecture and 14 of whom are indigenous inhabitants, which include mainly the Hani, Yi, Dai, Lahu, Wa, Bulang and Yao peoples. It is an important production area of the renowned Pu'er Tea and one of the largest tea production areas in China.

Distributed within the territories of Pu'er Municipality are vast undulating mountains that occupy 98.3% of its landscape. Due to its proximity to the Tropics of Cancer and an integrative impact of the physiognomy and varying elevation gradient from 376 to 3,306 meters, distinctive vertical climate zones are widespread in the region. Being located at the same latitude with that of Cuba in Central America and Taiwan Province of China and as a result of its location on the transient area between the northern and southern bio-geographic regions, its landscape has long been reputed as 'a magic natural museum' which is composed of mainly species diversity, lush primary forest vegetation, rare and special animals, a broad array of exotic flowers and rare herbs and uplifted landscape that are supplemented by a strong tinge of ethnic cultures, Yi folklores and other indigenous humanistic landscapes.

### **Field sites to be visited in Pu'er City**

#### **1. Nanben Propagation and Cultivation Base for Rare and High Value Medicinal Herbs**

Jinling Plant Pharmaceuticals Company is the largest of its kind in cultivating the medicinal herbs *Dendrobium* spp. in China. Currently, the company has three subsidiary companies, two of which are in China and one in Oudomxai Province of Laos PDR. All of these subsidiary companies are specialized in growing rare and high value medicinal herbs, such as *Dendrobium* species, and they are the leading enterprises in Pu'er City. For a decade since the founding of the company, it has become the earliest *Dendrobium* growing enterprise, and the largest of its kind in the region.

The company has adopted the management model of "company + plantation bases + farmer households". It has promoted the development of more than 30 plantation bases and 3,000 farmer households specialized in growing Dendrobium medicinal herbs which have contributed substantially to poverty alleviation amongst the rural farmers in the mountainous areas. These efforts further contributed significantly to the sustainable extraction and use of Dendrobium resources, and to promoting the modernization, internationalization and industrialization of traditional Chinese herbal medicines.

## **2. Wanzhangshan and Mayanshan Afforestation Project**

Wanzhangshan Forest Farm is a new type of state-owned forest farm that was created through reforming a previous forest logging enterprise. The forest farm covers 8,800 hm<sup>2</sup> in the first level tributary of the Lancang (Mekong) River, of which 4,267 hm<sup>2</sup> is commercial forest and 4,533 hm<sup>2</sup> is amenity/ecological forests. Currently, the forest farm hires 60 staffs to carry out the overall forest management and protection. In the past decade, the forest farm has implemented the low-yield forest improvement program and afforestation on barren mountains. In total, about 4,000 hm<sup>2</sup> of plantation forest has been established and eight million trees have been planted. The indigenous species, *Pinus kesiya* (Simao pine), is the main tree species used in the afforestation project. The survival rate has maintained at above 96% in the planting year and above 86% in the subsequent years. Through years of efforts, the forest stands in Wanzhangshan Forest Farm have been greatly improved. Sustainable forest resources have been enhanced significantly and the net growth of forest resources is also increasing steadily. The establishment of effective management models for state-owned forest farms has contributed substantially to the management goals of "seeing green mountains and achieving steady stock growth", and to erosion control and ecological protection in the watersheds of the Mekong River.

## **3. Simao Port and Nuozhadu Provincial Nature Reserve**

### **Simao Port**

Simao Port is the first port in China's territory for international navigation on the Lancang-Mekong River. It is a golden navigation channel that links China with the Southeast Asian countries, including Laos, Myanmar, Thailand, Cambodia and Vietnam. It is also an important gateway for Yunnan and the Great Southwest Region of China to the rest of Southeast Asia. The port has a great geographic position that is 87 km from Simao, 85 km from Jinghong (water course), 420 km from the Golden Triangle, 787 km from Luang Prabang in the Laos and 1,260 km from Vientiane .

The total area designated for Simao port is 6 km<sup>2</sup> and the designed annual freight capacity is 300,000 tons and 100,000 passengers. Up to now, 0.5 km<sup>2</sup> has been constructed and 140 million-yuan has been invested from national, provincial, municipal funding and other sources. The port is run by the port administration, and the customs is responsible for border security checks, commercial checks, health checks, as well as quarantines for animals and plants.

### **Nuozhadu Provincial Nature Reserve**

Nuozhadu Provincial Nature Reserve is located at the junction between Simao District and Lancang Lahu Ethnic Minority Autonomous County of Pu'er Municipality in southern Yunnan. It is situated in a transient zone between the tropical and the subtropical regions, and has typical subtropical forest ecosystems of the Southern China. The area of the nature reserve is 21,679hm<sup>2</sup>, with the Lancang-Mekong River meander through from the northwest to the southeast.

Found in the nature reserve are 2,010 species (and variants) of vascular plants belonging to 201 families and 906 genera, including 102 fern species from 32 families and 63 genera, 1,914 seed

plant species from 169 families and 843 genera, of which eight genera are endemic to China. There are 29 wild animal species listed for national and provincial protection, including 8 species for National Class I Protection, 17 species for National Class II Protection, 1 species for Provincial Class I Protection and 3 species for Provincial Class II Protection. The major protected species include the Asian elephant (*Elaphas maximus*), the Indian buffalo (*Bubalus bubalis*), the sun bear (*Helarctos malayanus*), slow lorises (*Nycticebus coucang*), the Assam macaque (*Macaca assamensis*) and the water monitor (*Varanus salvator*).

#### 4. China's Pu'er Tea Research Institute

Yunnan Pu'er Tea Research Institute is the only tea research institute established within the academic system of Yunnan. The institute has implemented more than 20 research projects funded by the Provincial Departments of Sciences and Technology, Agriculture and Education. Some outstanding achievements have been made to the study of the variety and the characteristics of tea trees in Yunnan, the intrinsic relationships between tea processing techniques and product quality, and the health-related chemical elements in Pu'er Tea. The areas of research include (1) the genetic diversity of tea trees, (2) the techniques for sustainable management of tea plantations, (3) the production techniques of Pu'er tea, which include fine processing and improving quality by the use of beneficial microorganisms in fermentation, (4) the tasting and quality evaluation of Pu'er tea, (5) the sustainable development of Pu'er tea culture, etc. All these efforts have contributed substantially to the development of the tea industry of Yunnan Province.

#### 5. Biodiversity Science Museum

Since Pu'er is one of the key prefectures with the richest biodiversity resources, a Biodiversity Science Museum has been established in the Pu'er College. It is the first museum open to the public with a focus on biodiversity resources conservation and utilization, especially on high-value economic species, rare, endemic and endangered species.

#### 6. Demonstration of Coffee and Tea mixed agroforestry

The mixed plantations of Coffee under the economic forest was and a dominated upland agroforestry model in Dakaihe Village invented from traditional shifting cultivation, such as slash and burn or swidden, the total area is around 765 acres with 1.6 acres per villager at average level, and a net income of 3580 yuan per person has produced from upland agroforestry plantation annually.

#### 7. Caiyanghe Provincial Nature Reserve

Caiyanghe Provincial Nature Reserve is located in the southeastern part of Simao District in Pu'er Municipality. Covering an area of 14,892 hm<sup>2</sup>, the vegetation of the nature reserve is representative to the typical subtropical forest ecosystems of the Southern China. The nature reserve was established by the Provincial Government in October 1981, with a core (highly-restricted) zone of 6,747hm<sup>2</sup>, or 45.3%, and an experimental (partially-restricted) zone of 8,145 hm<sup>2</sup>, or 54.7%.

**Wild animals:** There are 415 wild animal species listed for national and provincial protection in the nature reserve, including 71 species for national protection and 344 species for provincial-level protection. These include 102 species of mammals, 222 species of birds and 91 species of reptiles. These species include: the Indian buffalo (*Bubalus bubalis*), the Chinese water deer (*Hydropotes inermis*), the Indian muntjac (*Muntiacus muntjak*), the red jungle fowl (*Gallus gallus*), the silver pheasant (*Lophura nycthemera*), the great white egret (*Oriolus traillii Vigors*), the water monitor



(*Varanus salvator*), the Burmese python (*Python molurus bivittatus*) and the lateral-stripe salient tree frog (*Chirixalus vittatus*).

**Vegetation and plants:** 2,104 higher plant species (and variants) recorded in the nature reserve, belonging to 883 genera in 209 families. Also, there are 892 species of medicinal plants in the reserve, belonging to 530 genera in 163 families. In total, 36 species are listed for protection, including 1 species for National Class I Protection, 15 species for National Class II Protection, and 20 species for provincial protection in Yunnan. 50 species are endemic to Yunnan.

#### 8. Demonstration of Simao Pine plantation

Approximately 1680 acres of land is afforested with fast-growing species commonly used for timber production, such as pine (*Pinus kesiya*) and birch (*Betula alnoides*). The purpose is to explore and demonstrate modern forestry practices and technologies for more effective and stable timber production. With this successful demonstration, the forestation model and techniques have become widely accepted and replicated by communities and individual farmers in the region.

#### 9. China Pu'er Tea Field Museum

China Pu'er Tea Field Museum is situated in a 1,533 hm<sup>2</sup> of tea plantation at an elevation of 1,700m surrounded by beautiful sceneries of green mountains. The museum comprises of a tea house, an experimental area for tea harvest and an exhibition building. The world of Pu'er tea is introduced here to the visitors, from Pu'er tea's origin and history, its role in ethnic cultures, development and evolution, planting and harvesting, processing, packaging and marketing, as well as tea serving and tasting. Here in the Pu'er Tea Field Museum, visitors have the pleasure in viewing tea plantations, experience tea picking, tea making, tea tasting and purchasing. It is known as the largest park dedicated for Pu'er tea, and it has the most complete tea resources and exhibitions relating to the tea culture.

#### 10. High Value Medicinal Herbs cultivation under nature forests

*Dendrobium spp.* is a type of orchid that is traditionally used as herbal medicine. It is used mainly for digestive disorders, and to improve stomach and kidney functions. The plantation has an area of around 116 hectare, where 58 *Dendrobium spp.* are cultivated in natural forests besides other high value herb species. 280 tons of fresh stems and 1 ton of flowers are harvested annually, producing an annual output value of 66.2 million yuan

## **7. Outlines of Keynote Lecture**

### **1. A review of socio-economic and environmental aspects of agroforestry**

*--- by Dr. Schmidt- Vogt (Core Resource Person)*

The lecture will provide a basic introduction to the concept of agroforestry as a form of land use that is capable of addressing both the economic needs of smallholder farmers and the objectives of environmental conservation. A brief outline of the chief characteristics of agroforestry will be followed by a history of how agroforestry co-evolved as a traditional practice and as a modern approach to sustainable land use. The main parts of the lecture will explore in detail and with reference to case studies, how and to what extent agroforestry practices are capable of providing for the livelihood of farmers and, at the same time, provide benefits for the environment. A focus of this presentation will be on the role agroforestry can play in the context of forest management and forest conservation.

### **2. Traditional agroforestry systems and their adaptation for sustainable land use and forest management**

*--- by Dr. Schmidt- Vogt (Core Resource Person)*

Agroforestry is an age-old land use system which is probably older than intensive agricultural systems such as paddy farming. Farmers practicing agroforestry have also shown remarkable flexibility in adapting their land use to local conditions and changing circumstances. The lecture will provide a range of examples of traditional agroforestry systems as evidence for this remarkable capacity for adaptation in the past. The lecture will further explore how agroforestry systems can be adapted to the challenges of ongoing or expected socio-economic and environmental changes.

### **3. The role of agroforestry for community forestry development in the Asia-Pacific region**

*--- by Dr. Schmidt- Vogt (Core Resource Person)*

The development of agroforestry as a widely applied and promoted approach to sustainable land use has been paralleled by the development of community forestry as an alternative to conventional and centralized forest management. The lecture will explore how agroforestry and community forestry can complement each other, providing synergies for rural development in the Asia-Pacific region. It will start out by outlining the concept and history of community forestry in the region and then explore how decentralization, which is the characteristic of community forestry, and diversification, which characterizes agroforestry can be combined to provide additional benefits.

### **4. Organic Agroforestry as sustainable land use system for pro-poor development in Upland Areas**

*---by Ms. Yan Mei*

Agroforestry defines itself as the sustainable land form by integrating woody perennials with other crops and/or animals. And the integration agroforestry in organic production is more than the use of trees, hedges and shrubs as a way to improve soil physical properties, maintain soil organic matter, protect crops and livestock from flying insects and other predators, and promote

nutrient-cycling, it helps small holder farmers improve the income from agroforestry products, furthermore, it stimulates the institutional change of small farmers in natural resource management.

## **5. Ancient Arbor Tea Plantation and its management**

*---by Dr. Michelle Wong*

Ancient arbor tea plantation is a unique agroforestry ecosystem in western and southern Yunnan. For over one thousand years, wild or planted tea trees have been managed and harvested under the natural forest canopy by the natives, such as the Bulong, Dai and Hani people. The management is in harmony with nature, and the use of chemical pesticides or fertilizers is strictly prohibited. Under 80% of light intensity, tea trees are known to produce tea of a higher quality, yet with a lower productivity. The lack of proper management and market systems had led to large areas of ancient tea plantation to be brutally ruined and replaced by terrace tea plantation in the last few decades. In recent years, as the demand for high quality, organic products rises, and the awareness of sustainable development and cultural heritage preservation strengthens, ancient tea plantation once again becomes the major mode of production in the region. In this lecture, the ancient arbor tea plantation will be introduced with an emphasis on its socio-economic and ecological values. Its challenges and suggested mitigation measures will also be discussed.

## ***Attached files***

### 1. Participant's Report received before 8<sup>th</sup> November 2012

- 1) FFF Model, an Innovative Agro-forestry Practice in Bangladesh Coast to Reduce the Vulnerability of Coastal Dwellers due to Climate Change
- 2) Case study of Agroforestry Practice in the Pacific
- 3) Agroforestry Case Study in Peninsular Malaysia
- 4) Improving livelihood and reducing vulnerability of the poorest farmer through degraded forest management in Nepal
- 5) A Case Study on Agroforestry Practice in Papua New Guinea
- 6) Ensuring of Local Forest Biodiversity Rehabilitation, Poverty Alleviation and Climate Change Adaptation through Smallholder Tree Growing in Northeast of Thailand
- 7) Agroforestry systems in Vietnam: A review
- 8) A study on the impact of Tsao-ko Cultivation in Natural Forest by Ethnic groups in Southeast Yunnan, China
- 9) Development of Agroforestry for Forest Restoration and Poverty Alleviation in Gunung Walat Educational Forest, Indonesia

### 2. PPT files provided by participants before 8<sup>th</sup> November 2012

- 1) FFF Model, an Innovative Agro-forestry Practice in Bangladesh Coast to Reduce the Vulnerability of Coastal Dwellers due to Climate Change
- 2) Agroforestry Case Study in Peninsular Malaysia
- 3) Agroforestry systems in Vietnam: A review
- 4) Green Wall Program in Mongolia: learning's and problems
- 5) A Case Study on Agroforestry Practice in Papua New Guinea

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