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### **APFNet Workshop on Forestry and Rural Livelihood Development**

## 01 - 14 November 2018 Yunnan Province, China

### **1. INTRODUCTION**

### **APFNet's Thematic Workshops**

The Asia-Pacific Network for Sustainable Forest Management and Rehabilitation (APFNet) was established with the main mission of promoting and improving sustainable forest management and rehabilitation in the Asia-Pacific region. One of the main missions of APFNet is to strengthen the human resource capacity. This is being accomplished through a number of programmes, including thematic workshops aimed to enhance knowledge especially through sharing of experience gained within and outside the Asia-Pacific region.

In order to further strengthen the implementation of these training workshops, APFNet has developed a five year strategic plan for 2016 to 2020 with the mission of adding green for Asia and the Pacific. Accordingly every year APFNet-KTC will organize two training workshops on the specific themes (1) Forest Rehabilitation and Management and (2) Forestry and Livelihood Development. Both these themes are key priority areas for almost all the economies in the region. After receiving a high appreciation from regional participants of the previous training workshops and on the occasion of the 10<sup>th</sup> Anniversary of APFNet in 2018, APFNet-KTC is continually organizing the regular training workshop on "Forestry and Rural Livelihood Development" during a period of 1<sup>st</sup> to 14<sup>th</sup> November, 2018 in Kunming City, Yunnan Province, China.

### Forestry and Livelihood Development

Forests and forestry play important roles in the livelihood of people in all societies, though the nature of livelihood derived varies in time and space. An estimate by the World Bank about 1.6 billion people are directly and indirectly dependent on forests for their livelihood, and the impact of forestry development on people's livelihood has been extremely varied; while some have helped to improve livelihoods through provision of goods and services as also income from forestry employment.

Most developing economies in the Asia-Pacific Region rely heavily on forest resources for livelihoods and economic productivity despite of economic development efforts in the region have also resulted in deforestation and forest degradation as well as marginalization of forest dependent communities, and forestry agencies are facing immense challenges in meeting the diverse demands on forests. Protecting the vast forest areas in the context of limited fiscal and human resources requires well-designed and well-implemented policies and programs that improve forest resources management contributing to livelihood improvement of local communities at the same time helping to restore degraded forest areas, conserve biodiversity, and increase the income of local communities.

### THE WORKSHOP

APFNet Kunning Training Center (APFNet-KTC) will organize this workshop to provide a better understanding of the forest-livelihood linkages and what may be done to enhance forest's contribution to improve rural livelihood.

Depending on availability of funds, the total number of invited participants will be limited to fifteen from the APFNet member economies. The Workshop will be held from 1 to 14 November, 2018 in Kunning City, Southwest China.

### Objectives

The main objectives of the Workshop are to:

- 1. Assess the linkage between forest management and rural livelihood improvement and explore the ways in which the livelihoods of rural communities might be improved through better forest management
- 2. Provide an overview of the experiences and best forestry practices aimed at enhancing rural livelihood development
- 3. Analyze and assesse implications of key policy, institutional and technological developments and the potentials and limitations for livelihood improvement through biodiversity conservation and climate change mitigation and adaptation measures.

### **Main Topics/Areas**

The Workshop will attempt to provide a broad analytical framework to assess the current state of rural livelihood improvement specifically focusing on the following:

- Forests and livelihoods: Past, present and future.
- Policies and institutions in support of enhancing the livelihood roles of forests.
- Indigenous communities and traditional knowledge: Myths, realities and the way forward

- Payment for environmental services: Potentials and constraints in improving the livelihood of forest dependent communities
- Urban forestry and livelihoods
- Protected areas and livelihoods: People and wildlife from conflict to co-existence.

Debates and discussions during the Workshop will generate more questions and encourage critical thinking and analyses aimed to provide practical solutions that could help in improving the livelihood contribution of forests.

### WORKSHOP STRCUTURE AND TRAINING APPROACH

The workshop structure is designed to provide the maximum learning opportunity to the participants and the entire thrust will be on dialogue, group work, discussions and field observations. The following are the four key components of the Workshop:

• Thematic lectures:

Invited experts will provide an in-depth assessment of different aspects relating to livelihood improvement and forest management.

• Participant presentation:

Participants will make presentations which will outline experience in managing forests accommodating livelihood concerns at the national programme and project level.

• Group work and discussions:

Group discussions including panel discussions and debates will be an integral component of the workshop and all participants are encouraged to actively participate in these. As part of the group work participants will be required to prepare policy briefs related to strengthening the livelihood contribution of forests.

• Field trip:

Field trip to different areas in Pu'er City of Yunnan Province will provide an opportunity to learn how livelihood dimensions are taken into account in natural forest management, forest plantations and management of protected areas in different land use systems.

### **Workshop Outputs**

The Workshop is expected to significantly enhance the knowledge of forestry professionals in designing policies and programmes helping to improve the contribution of forests and forestry to rural livelihood. Participant papers will be edited and published as an important information sharing source for future initiatives and development efforts; it will be

disseminated on both APFNet and APFNet-KTC websites at the same time. In addition, a synthesis report as another important workshop output with summarized key issues from workshop discussion will also be accessible to a wider audience.

### **REQUIREMENTS FOR PARTICIPATION**

The Workshop is open to senior policy makers and planners working with government ministries and departments, universities, research institutions and civil society organizations involved in the management of natural resources, in particular forests. Priority will be given to those specifically involved in addressing the livelihood needs of rural communities and the nomination of female participants are highly appreciated in order to ensure a better gender balance.

For the invited participants, APFNet will cover the costs associated with the Workshop including round-trip economy class airfare for international travel, a full board accommodation, costs of field trips and a small amount of per diem to cover sundry expenses. Participants/ sponsoring agencies will have to bear all other costs including costs of domestic travel, visa and personal expenses.

### WORKSHOP VENUE

Name: Center for International Exchange and Cooperation, Southwest Forestry University

Address: #300 Bailongsi, Kunming City, Yunnan Province, P.R. China

**Phone:** (+86) 871 63863956 or (+86) 63863983

### **CONTACT INFORMATION**

For further details about the course and the various arrangements please contact:

### Ms. PAN Yao

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# 2. WORKSHOP PROGRAMME

18:30 - 20:00

PART 1: Indoor Learning Session (1-8 & 13-14 November, 2018) (Center for International Exchange and Cooperation, Kunming City, China) Time Agenda Presenter/Speaker/Facilitator DAY 1: (Thursday/November 01, 2018) Participant arrival and registration DAY 2: (Friday/November 02, 2018) **Opening Ceremony** SWFU, YNPFD 08:30 - 09:00 Welcome remarks APFNet - KTC Vote of thanks 09:00 - 09:30 Group photo and Coffee break APFNet - KTC **Overview of APFNet Thematic Trainings** 09:30 - 10:00 Workshop Facilitators Introduction to the course 10:00 - 10:30 Ice breaker - Getting to know each other Workshop Facilitators Lecture 1: Changing role of forests in people's livelihood: Past, present and future 10:30 - 12:00 Dr. C.T.S. Nair --- Q & A Center for International 12:00 - 14:00 Lunch Exchange and Cooperation 14:00 - 14:45 Participant Presentation 1: Bangladesh Mr. Shyamal Kumer Ghose 14:45 - 15:30 Participant Presentation 2: Cambodia Mr. Neab Keng 15:30 - 16:00 **Coffee break** Introduction to group work: Preparation of policy brief 16:00 - 17:30 Dr. C.T.S. Nair

Welcome dinner

**APFNet-KTC** 

PROGRAMME OVERVIEW APFNet Workshop on Forestry and Rural Livelihood Development (01 - 14 November, 2018 Yunnan, China)

DAY 3: (Saturday/November 03, 2018)			
08:30 - 08:40	Overview of presentation on Day 2	Selected Participants	
08:40 - 10:10	Lecture 2: Forest policies, institutions and management: How they have accommodated livelihood needs of people	Dr. C.T.S. Nair	
10:10 - 10:40	Coffee break		
10:40 - 12:00	<b>Lecture 3:</b> Forest governance and livelihood improvement	Ms. Rowena Soriaga	
12:00 - 14:00	Lunch	Center for International Exchange and Cooperation	
14:00 - 14:45	Participant Presentation 3: Fiji	Ms. Arieta Nailagovesi Rokoveilavo & Mr. Ropate Green Divavesi	
14:45 - 15:30	Participant presentation 4: Indonesia	Dr. Yanto Rochmayanto	
15:30 -16:00	Coffee break		
16:00 - 17:00	<b>Group Discussion:</b> Poverty reduction through forestry: SWOT analysis of different options	Dr. C.T.S. Nair	
17:00 - 18:00	Group Work: Preparation of policy brief	Dr. C.T.S. Nair	
DAY 4: (Sunda	y/November 04, 2018)		
08:30 - 08:40	Overview of presentation and discussions on Day 3	Selected Participants	
08:40 - 10:10	Lecture 4: Small scale forestry enterprises, value chains and markets	Dr. C.T.S. Nair	
10:10 - 10:40	Coffee break		
10:40 - 11:25	Participant presentation 5: Malaysia	Mr. Ricky Alisky Martin	
11:25 - 12:10	Participant's Presentation 6: Malaysia	Mr. Roslan Bin Rani	
12:10 - 14:00	Lunch	Center for International Exchange and Cooperation	

PROGRAMME OVERVIEW APFNet Workshop on Forestry and Rural Livelihood Development (01 - 14 November, 2018 Yunnan, China)

APFNet Workshop on Forestry and Rural Livelihood Development (01 - 14 November, 2018 Yunnan, China)				
14:00 - 14:45	Participant presentation 7: Myanmar	Ms. Khin Yimon Hlaing		
14:45 - 15:30	Participant's Presentation 8: Nepal	Ms. Kanti Kandel		
15:30 - 16:00	Coffee break			
16:00 - 17:30	Group Work: Preparation of policy brief	Dr. C.T.S. Nair		
DAY 5: (Monda	ay/November 05, 2018)			
08:30 - 08:40	Overview of presentations and discussions on Day 4	Selected Participants		
08:40 - 10:10	<b>Lecture 5</b> : Use of social cost benefit analysis for measuring the impact of forestry programmes and projects on livelihoods Q & A	Dr. C.T.S. Nair		
10:10 - 10:40	Coffee break			
10:40 - 12:00	Lecture 6: Forest degradation and rehabilitation: Practices in Yunnan Province, China	Prof. Zhang Jinfeng		
12:00 - 14:00	Lunch	Center for International Exchange and Cooperation		
p.m.	Free	Participants		
DAY 6: (Tuesday/November 06, 2018)				
08:30 - 08:40	Overview of presentations and discussions on Day 5	Selected Participants		
08:40 -10:10	Lecture 7: Forests and livelihoods of indigenous communities	Ms. Rowena Soriaga		
10:10 - 10:40	Coffee break			
10:40 - 12:00	Lecture 8: Co-management on forest conservation as the approach to improve rural sustainable livelihoods Q & A	Dr. Wu Yusong		
12:00 - 14:00	Lunch	Center for International Exchange and Cooperation		

PROGRAMME OVERVIEW APFNet Workshop on Forestry and Rural Livelihood Development (01 - 14 November, 2018 Yunnan, China)

APFNet Workshop on Forestry and Rural Livelihood Development (01 - 14 November, 2018 Yunnan, China)			
14:00 -14:45	Participant's Presentation 9: PNG	Mr. Philip Pupndui	
14:45 - 15:30	Participant presentation 10: Philippines	Ms. Diana Quebral Vinarao	
15:30 - 16:00	Coffee break		
16:00 - 17:00	<b>Group Discussion:</b> Indigenous knowledge and livelihoods of forest dependent people	Ms. Rowena Soriaga	
17:00 -18:00	Group Work: Preparation of policy brief	Dr. C.T.S. Nair	
DAY 7: (Wedne	esday/November 07, 2018)		
08:30 - 08:40	Overview of presentations and discussions on Day 6	Selected Participants	
08:40 - 10:10	Lecture 9: Forestry and rural livelihood development	Mr. Imran Ahmed	
10:10 - 10:40	Coffee break		
10:40 - 12:00	Lecture 10: Application of "close-to-nature forestry" theory in sustainable management of birch plantation Q & A	Prof. Zhang Jinfeng	
12:00 - 14:00	Lunch	Center for International Exchange and Cooperation	
14:00 - 14:45	Participant presentation 11: Sri Lanka	Mr. Karunadipathi Divaratne Haluwadana Nilamele Diddeniye Gedara Athula Divaratne	
14:45 - 15:30	Participant presentation 12: Thailand	Ms. Poonsri Wanthongchai	
15:30 - 16:00	Coffee break		
16:00 -17:30	Group Work: Preparation of policy brief	Workshop facilitators	
DAY 8: Thursday /November 8, 2018			
08:30 - 08:40	Overview of presentations and discussions on Day 7	Selected Participants	
08:40 - 09:25	Participant presentation 13: Viet Nam	Dr. Le Dinh Hai	
09:25 - 10:10	Participant presentation 14: China	Dr. Qiao Lu	

PROGRAMME OVERVIEW APFNet Workshop on Forestry and Rural Livelihood Development (01 - 14 November, 2018 Yunnan, China)

APFNet Workshop on Forestry and Rural Livelihood Development (01 - 14 November, 2018 Yunnan, China)			
10:10 - 10:30	Coffee break		
10:30 - 12:00	Group Work: Preparation of policy brief	Workshop facilitators	
12:00 - 14:00	Lunch	Center for International Exchange and Cooperation	
14:00 - 15:30	Presentation of group work on policy brief	Group Leaders	
15:30 - 16:00	Coffee break		
16:00 - 17:00	Briefing on field trip	Ms. Pan Yao	
	Day 9 to day 12: (Friday - Monday / November 09 - 2	12, 2018)	
Field Trip	to Pu'er City and visit to different areas focusing on forestry and	rural livelihood development	
DAY 13 (Tuesd	ay /November 13, 2018)		
08:30 - 08:40	Overview of presentations and discussions on Day 8	Selected Participants	
08:40 - 09:00	Overview on field trip in Pu'er City	Participants	
09:00 - 09:30	An overview of the Workshop and Course evaluation	Workshop Facilitators	
09:30 - 10:00	Coffee break		
10:00 - 11:00	Closing Ceremony      •    Award of certificates      •    Remarks      •    Vote of thanks	Guests Participants APFNet-KTC	
12:00 - 13:30	Lunch	Center for International Exchange and Cooperation	
p.m.	Free	Participants	
18:00 - 19:30	Farewell dinner	APFNet-KTC	
DAY 14 (Wednesday/November 14, 2018) Participants Departure			

### PART 2: Field Trip (9-12 November, 2018)

(Pu'er City, Yunnan Province, China)

### Friday / November 09, 2018

07:00 - 07:45	Breakfast at Center for International Exchange and Cooperation
07:50 - 08:00	Boarding bus
08:00 - 12:00	Drive from Kunming to Mojiang County
12:00 - 13:00	Lunch in Mojiang County.
13:00 - 15:00	Heading to Pu'er City and check-in at Hotel
16:00 - 17:30	Introduction to forestry development and management in Pu'er City
18:00 - 19:00	Dinner (hosted by Forestry Bureau of Pu'er City)
Evening	Free

### Saturday / November 10, 2018

08:00 - 08:30	Breakfast at Hotel
08:30 - 09:30	Visit Pu'er Fine Variety Ecological Tea Garden and Tea Research Institute
09:30 - 11:30	Visit cultivation base for rare and high value medicinal herbs under natural
	forests; Bamboo cultivation and utilization
12:00 - 13:00	Lunch
13:00 - 17:30	Visit program of upland conversion for forestation, and agroforestry
	practice of coffee intercropping with Tea; Pu'er Forestry Research Institute
18:00 - 19:00	Dinner
Evening:	Free

### Sunday / November 11, 2018

08:00 - 08:30	Breakfast at Hotel
08:30 - 11:30	Visit the demonstration site of Logging Ban Programs of Protection Forests
	for Ecological Function in Wanzhangshan forest farm
12:00 - 13:00	Lunch
13:00 - 15:00	Visit rosin and turpentine production
15:00 - 17:00	Visit composite wood products factory
18:00 - 19:00	Dinner
Evening:	Free

### Monday / November 12, 2018

08:00 - 08:45	Breakfast at Hotel
08:45 - 09:00	Check-out
09:00 - 11:30	Drive from Pu'er City back to Kunming,
11:30 - 12:30	Lunch in Mojiang County
12:30 - 16:30	Drive from Mojiang County to Kunming City
16:30 - 17:00	Arrive in Kunming and check-in at Center for International Exchange and
	Cooperation
18:30 - 19:30	Dinner
Evening:	Free

### **Profile of Kunming City**

Kunming, the capital of Yunnan Province, dates back 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, economic 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 15°C-23°C during September, with slightly lower temperatures in the morning and evening.

Some 25 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.

# 3. LIST OF PARTICIPANTS

No.	Name	Nationality	Title/Organization	E-mail
1	Mr. Shyamal Kumer Ghose	Bangladesh	Assistant Conservator of Forests, Bangladesh Forest Department	shyamalacffd@gmail.com
2	Mr. Neab Keng	Cambodia	Technical Officer, Department of Forest Plantations & Private Forest Development, Forestry Administration, Ministry of Agriculture, Forestry and Fisheries (MAFF)	neabkeng@gamil.com
3	Dr. Qiao Lu	China	Associate Professor, Ecological & Environmental Engineering Faculty, Yunnan Forestry Technological College, China	qiaoqiaotantan@163.com
4	Ms. Arieta Nailagovesi Rokoveilavo	Fiji	Forest Guard Training, Ministry of Forests	etanailagovovesi@gmail.com
5	Mr. Ropate Green Divavesi	Fiji	Forest Guard, Timber Utilization & Research Division, Ministry of Forest	rdivavesi@yahoo.com
6	Dr. Yanto Rochmayanto	Indonesia	Senior researcher, Research and Development Center for Socio-Economic, Policy and Climate Change, Ministry of Environment and Forestry, Indonesia	rochmayantoyr@yahoo.co.uk
7	Mr. Ricky Alisky Martin	Malaysia	Social Forestry Officer, SFM Division, Sabah Forestry Department, Malaysia	RickyAlisy.Martin@sabah.gov.my
8	Mr. Roslan Bin Rani	Malaysia	Director of Forestry Training Division, Forestry Department Peninsular Malaysia	roslanrani@forestry.gov.my
9	Ms. Khin Yimon Hlaing	Myanmar	Staff Officer, Natural Forest and Plantation Division, Forest Department, Ministry of Natural Resources and Environmental Conservation, Myanmar	yimon2323@gmail.com
10	Ms. Kanti Kandel	Nepal	Assistant Conservation Officer, Ministry of Forests and Environment, Singhadurbar, Kathmandu, Nepal	kanti.kandel11@gmail.com
11	Mr. Philip Pupndui	PNG	Forestry Officer - Extension, Papua New Guinea Forest Authority	philpupndui@gmail.com
12	Ms. Diana Quebral Vinarao	Philippines	Community Development Officer III, Forest Management Bureau, Department of Environment and Natural Resources FMB-DENR	dianavinarao27@gmail.com
13	Mr. Karunadipathi Divaratne Haluwadana Nilamele Diddeniye Gedara Athula Divaratne	Sri Lanka	Range Forest Officer, Forest Department, Sri Lanka	Athuladiva37@gmail.com
14	Ms. Poonsri Wanthongchai	Thailand	Forestry Technical Officer, Senior Professional Level, Mangrove Conservation Office, Department of Marine and Costal Resources	Poonsri56@gmail.com
15	Dr. Le Dinh Hai	Viet Nam	Director, Center for Social Work and Community Development, Vietnam National University of Forestry	haifuv@yahoo.com

### 4. PROFILES OF RESOURCE PERSONS

### 1. Dr. C.T.S. Nair (ctsnair47@gmail.com)

Dr. C.T.S. Nair, formerly with the Indian Forest Service, is currently a consultant in natural resources management with particular focus on forestry. He has a multi-disciplinary background with Bachelor's degree in zoology, Post-Graduate diploma in forestry (Indian Forest College, Dehra Dun), M.Phil. in Applied Economics (Centre for Development Studies, Trivandrum) and Ph. D in Forest Economics (Bangor University, Wales, United Kingdom).

Dr. Nair has a highly diverse experience profile. He joined the Indian Forest Service in 1969 and held various positions including as Divisional Forest Officer with the Kerala Forest Department, Forest Economist and later as Director at the Kerala Forest Research Institute and Deputy Inspector General of Forests, Ministry of Environment and Forests, Government of India.

Dr. Nair was with the Food and Agriculture Organization of the United Nations for about 20 years and worked in various capacities, including as Forest Economist in Sudan, Senior Programme Advisor (Forestry Research Support Programme for Asia-Pacific, FAO Regional Office, Bangkok), and in various capacities in the Forestry Department, FAO Headquarters, Rome, including as Senior Forestry Officer (Economic Analysis), Chief of the Planning and Statistics Branch, Chief of the Forest Economics Service and Chief Economist of the Forestry Department. He was the coordinator of FAO's flagship publication "State of the World's Forests 2009" and a series of long term sector outlook studies pertaining to Africa, West and Central Asia and Asia and the Pacific.

After retirement from the Food and Agriculture Organization Dr. Nair worked as the Executive Vice President of the Kerala State Council for Science, Technology and Environment and as the Principal Secretary, Science and Technology Department. During that period he also served as the Chairman of the Kerala State Coastal Zone Management Authority.

Dr. Nair is currently a consultant to the Food and Agriculture Organization, the Asia Pacific Association of Forestry Research Institutions and the Asia-Pacific Network on and Sustainable Forest Management and Rehabilitation (APFNet) and coordinates various training workshops and studies. He has been coordinating the Executive Forest Policy Course organized by the Food and Agriculture Organization as also the APFNet Thematic Training Workshops organized by APFNet-KTC. Currently he is the Lead Consultant for the Asia-Pacific Forest Sector Outlook Study III being undertaken by the Food and Agriculture

Organization of the United Nations. His main areas of interest are assessment of long term changes in the use of natural resources, policy and institutional analysis and science and technology management.

### 2. Ms. Rowena Soriaga (rsoriaga@gmail.com)

Ms. Rowena Soriaga has been working with natural resource management and rural development concerns over the past 23 years, mainly through the Environmental Science for Social Change (ESSC) and Asia Forest Network (AFN). In ESSC, she has been involved in the design and implementation of projects focused on various aspects of sustainable development especially in rural environments. Through AFN, she has contributed to various collaborative regional knowledge products including: (i) Where is the Future of Cultures and Forests, a thematic paper on Indigenous Peoples and Forest Management in 2020 for FAO's Asia-Pacific Forestry Sector Outlook Study II; (ii) Forest Lives, a report synthesising Lessons on sustaining communities and forests from the EU-UNDP-SEARCA Small Grants Programme for Operations to Promote Tropical Forests, (iii) Making Forestry Work for the Poor, an APFNet-supported assessment of the contribution of forestry to poverty alleviation in Asia and the Pacific, and (iv) Role, Contribution and Effectiveness of Local Governments in Forest Law Enforcement and Governance in ASEAN, a policy paper of the ASEAN Regional Knowledge Network on Forest Law Enforcement and Governance.

She currently serves as ESSC Program Development Specialist and AFN Adviser while contributing to the implementation of two projects: (i) as PES/REDD+ specialist for Assessment of Land and Resource Management (ALARM) and Generating Advancement for Upland Peoples (GAUP) in Pantaron Range, Mindanao, Philippines, and (ii) as committee member for Ecojesuit Flights for Forests. She also provides consulting services to several government, civil society and multilateral institutions mainly covering Southeast Asia.

Rowena obtained her BS Business Economics degree from University of the Philippines and Master in Development Management degree from the Asian Institute of Management.

### 3. Prof. Zhang Jinfeng (zhjf12114@aliyun.com/1910323166@qq.com)

Prof. Zhang Jinfeng completed his first Master in Agroforestry in the University of Philippines at Los Banos in 1994, and then he finished his second Master in Agricultural Systems in Chiang Mai University from 1996 to 1998. In 2010, he completed a PHD in Human Ecology at Yunnan University of China.

Prof. Zhang now works as Director of Arboretum, Yunnan Academy of Forestry (YAF). As the project leader, he has taken charge of 9 international cooperation projects, 2 national science and technology key projects, 2 national forestry technology extension projects, 2 provincial science and technology research projects, 2 provincial forestry technology extension projects, 4 provincial forestry industry development projects; have bred 5 cultivars of Taxus; developed 2 national standards, and participated in the development of 14 local standards.

His major research areas focus on technology development of plantation and management of native tree resources, restoration of degraded forest. Up to now, a total of 34 research papers and 8 books have been published. He also has been reward:

- State Council Special Award, 2014;
- The 2<sup>nd</sup> Prize of Yunnan Provincial Science and Technology Award, 2013;
- Yunnan Provincial Technology Innovation Talent, 2012;
- Yunnan Provincial Expert, 2011;
- The 1<sup>st</sup> Prize of Diqin prefecture Science and Technology Award, 2011;
- The 3<sup>rd</sup> Prize of Yunnan Provincial Science and Technology Progress Award, 2010;
- The 3<sup>rd</sup> Prize of Provincial Science and Technology Award, 2008;
- Yunnan Provincial Government Special Award, 2008;
- The 1<sup>st</sup> Prize of Yunnan Provincial Natural Science Award, 2007;
- The 2<sup>nd</sup> Prize of Yunnan Provincial Science and Technology Award, 2006.

### 4. Dr. Wu Yusong (1460087510@qq.com)

Ms. Yusong Wu, associate professor of Center for Rural Development Studies, Yunnan University. With more than 20 years of rich experiences in working with international NGOs, aid agencies and research institutes, Yusong Wu mainly focuses on political ecology field, especially on the areas of poverty alleviation, biodiversity conservation, good water governance in Lancang Mekong watershed, climate change and locals adaptation, China's overseas investment in Southeast Asia and South Asia.

Yusong Wu has translated, co-authored and edited many training materials and books related to integrated conservation and rural development, forest resource conflict management, and published many articles in international and domestic academic journals.

Yusong Wu has long experiences of working as a consultant to international and domestic development and conservation agencies such as World Bank, ADB, UNDP, UNEP, WWF, IUCN, SFA and MEP etc.

Over the years of working with multi-stakeholders, Yusong Wu and her team has developed good partnerships and network with government agencies at different levels, research institutes, private sectors, NGOs and local communities.

### 5. Mr. Imran Ahmed (imranforest@gmail.com)

Mr. Imran Ahmed did his master's degrees from Aligarh Muslim University, India (Botany with specialization in Genetics and Plant Breeding) and Chittagong University, Bangladesh (Forestry). He now serves as head of Developing Planning Unit of Bangladesh Forest Department (BFD), Ministry of Environment, Forest and Climate Change (MoEFCC). His main responsibility is associated with formation and formulation of development projects related to forest conservation, improvement and enhancement of ecological balance. His charter of duties in the Forest Department also include directly monitoring and regulating the financial and implementation activities of ongoing forestry projects and above all he works as a staff officer of the Chief Conservator of Forests, Bangladesh.

Mr. Imran has been working on issues related to sustainable development and the environment throughout his academic and professional career. Before joining the Bangladesh Forest Department, he worked as senior faculty (Biology) in Scholastica, a reputed English Medium School in Bangladesh. He also worked in the United States Forest Service as a country coordinator for Bangladesh's SilvaCarbon Program. He is also fluent in Bangla, English, Hindi and Urdu.

### 5. OUTLINES OF KEYNOTE LECTURES

### Lecture 1: Changing role of forests in people's livelihood: Past, present and future

### --- Dr. C.T.S. Nair

This lecture provides an overview of how people's dependence on forests has changed over time, how it varies depending upon the context and what needs to be done to enhance the livelihood roles of forests.

Forests form an important livelihood asset for millions of people by way of providing food, fuel, medicines and materials for shelter in addition to a wide array of life sustaining ecological services. However, the nature and extent of livelihood dependence are extremely context specific and changes over time and space. Those living in or in close proximity to forests with limited access to other resources are highly dependent on forests for meeting their subsistence needs. Farther from forests direct dependence on forests declines, though indirect dependence persists and often becomes more important. For example, in the urban context forests provide a variety of products as industrial raw material and more importantly ecosystem services like watershed protection, amenity values, climate change mitigation, etc. Livelihood importance of forests should therefore be considered from the specific context and how that context is changing over time.

In most economies wood production has been the main objective of forest management for a long time and the traditional livelihood functions were often considered as antagonistic to the wood production objective. This has led to an "exclusion approach" pushing livelihood activities to the informal/ illegal domain. Since the 1970s, and more particularly the post-1990 period, there have been major changes in the direction of forestry, with social dimensions, especially livelihood improvement, receiving increased attention. High levels of poverty in forest rich areas certainly led to have a reexamination of forest-livelihood linkages. Accomplishment of UN Sustainable Development Goals warrants major shifts in forest policies, legislation and management practices. However many challenges exist in ensuring that the full livelihood potential of forests is realized. Some of the major challenges in this regard are:

- Inadequate information on the extend of livelihood dependence on forests: This has led to generalizations based on scant and sometimes inaccurate information;
- A significant share of livelihood is derived in the subsistence segment for which no reliable information is available. While the importance of forests is widely recognized, absence of data precludes their consideration in the planning process.
- Livelihood aspects are not fully streamlined into forest policies, plans and programmes.
- Most often livelihood is related to access to and control of resources including access to information and knowledge. Although many economies have initiated forest tenure reform, many challenges exist and often progress in meaningful forest tenure reform is a very slow process. Further tenure reform, though necessary, is not a sufficient condition to improve livelihoods.
- Livelihood is very much dependent on the appropriate combination of different assets/ income portfolios. Asset and income diversification options are not available to many forest dependent communities.

It is possible to visualize different scenarios as regards direct reliance on forests for livelihood, depending on the growing significance of other assets – human capital, physical capital, financial capital and social capital. Climate change related events could have significant impacts on forest-livelihood linkages, especially when land and other physical assets are adversely affected, forcing people to rely on forests.

Key take home messages from the presentation are:

- 1. Forests-livelihood linkages are multiple, highly context specific and extremely dynamic.
- 2. Though direct dependence on forests for livelihood is declining, still millions of people continue to depend on forests for a wide array of livelihood needs.
- 3. Absence of reliable data remains a major challenge in making a realistic assessment of the livelihood contribution of forests, partly because of the preponderance of informal transactions.
- 4. The long term trend as regards forests and livelihood relates to the shift from production of livelihood goods food, fuel, medicines to the provision of ecological services and fulfilment of aesthetic and cultural needs.
- Different scenarios could be visualized as regards the future of forests-livelihood linkages. While forests will remain important the nature of dependence will however undergo changes and this will require appropriate changes in policies, legislation and institutions.
- 6. There is a need to go beyond the boundaries of forests and to consider livelihood in a landscape context giving due consideration to the role of all land uses in an integrated manner.

# Lecture 2: Forest policies, institutions and management: how they have accommodated livelihood concerns

### --- Dr. C.T.S. Nair

Whether forest management will be able to fulfill livelihood objectives or not is very much dependent on the combined effect of policies, legislation and institutions, both within and outside the forest sector. In this regard it is also important to consider the spatial dimension, in view of the increasing linkages between global, national and local developments. For example, international trade policies could have significant impacts on the livelihood of forest dependent people much more than what is envisaged by local level forest policies. Therefore any analysis of policies, regulations and institutions should consider the full canvass, transcending the sectoral and national boundaries.

Forest policies, legislation and institutions have undergone important changes and during the recent decades the pace of change has accelerated considerably. The situation however varies considerably between economies. Global, national and local developments have led to revision of forest policies in most economies and social aspects in particular livelihood improvement of forest dependent communities have become an important objective of national forest policies. However often policy objectives are not always translated effectively

into concrete action on account of deficiencies in legal and institutional framework. Many economies still rely on a legal framework, built on an "exclusion approach" often treating use of forests for livelihood as a forest crime. Failure to repeal older rules and regulations has led to severe conflicts. Some of the general trends as regards changes in policies, legislation and institutions that impact the livelihood role of forests are summarized below:

- 1. Most of the economies in the Asia-Pacific region have revised their forest policies especially in the post 1980 period and the revised policies reflect the larger changes in the socio-economic conditions. Social considerations like poverty alleviation and livelihood improvement have been mainstreamed in most of the recent forest policies.
- 2. A number of initiatives have been implemented to facilitate increased participation of communities in the management of forests. Institutional arrangements like forest user groups, community forestry, joint forest management, etc. have enhanced local community participation in forest resource management, enabling increased attention to livelihood dimensions.
- 3. The developments on the legal front have been somewhat mixed. Though some economies continue to rely on archaic legislation developed almost a century ago, there is also very forward looking legislation that aims to empower local communities including through tenure reforms. Also while farmers and communities are getting actively involved in tree growing, vestiges of old legislation persists creating disincentives.
- 4. The institutional arrangements are also quite varied. Increased involvement of community organizations in forest management had a positive impact on fulfilling the livelihood needs of rural communities.
- 5. Livelihood aspects of forestry were earlier addressed in a paternalistic manner and it was assumed that forest based industrial development provided the most effective option for livelihood improvement through employment generation. However this has changed and there is realization that forests could address a number of livelihood issues directly. In fact in many situations the quest for industrial forestry had net negative impacts on livelihoods.
- 6. Many management practices need to be reviewed and improved to enhance forestry's contribution to livelihood improvement.

On the whole there is increasing convergence of policies, legislation and institutions and certainly there is greater emphasis on objectives like livelihood improvement. Many challenges need to be overcome, one of the most important being the resistance to change from those who benefit from current policy, legal and institutional framework. Further

changes in policies, legislation and institutional arrangements need to be a continuous process adapting to the larger changes.

### Lecture 3: Forest governance and livelihood improvement

--- Ms. Rowena Soriaga

Policies and institutions determine how forests are managed, and governance determines how policies and institutions are established and applied on local people and their livelihood resources. Whether forest management will fulfil livelihood objectives or not is thus dependent on the combined effect of policies, legislation, institutions and governance both from within and outside the forest sector. Key global developments have influenced changes in forest policies, institutions, governance and management over the past three decades, though with varying paces of change and impacts on livelihoods. This lecture will explore the following topics: (a) what is governance and why it is important to livelihood improvement; (b) principles and pillars of good governance; (c) changes in forest policies, legislation and institutions and their impacts on livelihoods; (d) governance challenges; (e) governance improvement initiatives that enhance livelihood contributions of forests.

The presentation will set the stage for the following key messages:

- Governance reform is necessary for social and economic development to lead to rural livelihood opportunities.
- Poor governance is a recipe for conflicts and unsustainable use of resources.
- Good governance embodies six basic principles: participation, accountability, transparency, effectiveness, efficiency and fairness.
- Forest governance challenges tend to be reflective of larger governance issues that compound the complexity of forest governance reform.
- Strategies to improve forest governance should always take into serious account the broader environment beyond the forest sector.

### Lecture 4: Small scale forestry enterprises, value chains and markets

### --- Dr. C.T.S. Nair

Small scale forestry enterprises play a very critical role in providing livelihood to millions of people. Several livelihood providing activities – including tree growing, harvesting, processing, transport and marketing of forest products – are mostly small scale. In most developing economies small scale enterprises provide vibrancy to the economy providing employment and income. On the whole these enterprises are part of one or more value chains

and to understand the ability of forestry to improve livelihoods needs to be assessed adopting a value chain approach.

Production of wood and other products (including non-wood forest products) and their processing, transport and trade form the most important value generating activities in the forest sector and thus vital to improve people's livelihood. A wide array of forest production systems exist each having its specific impacts on value generation and livelihoods. Forest products are either consumed directly or enter into different value chains. Many rural communities rely on direct collection and use of several forest products. Some of the products are traded locally, nationally or globally undergoing value addition at each stage. The presentation addresses the following aspects:

- The concept of value chain and how a value chain approach could be adopted to analyze livelihood implications of production, processing, transport and trade of different forest products.
- Different types of forest product value chains.
- Factors that determine the share of value that can be captured by rural communities and its implications on policy and other interventions and how to enhance the share of value added accruing to rural communities.
- Emergence of global forest value chains and its impact on livelihoods (new opportunities as also challenges from global competition).
- Positive and negative aspects of value chains in the informal (and thus often illegal) domain.
- Emerging challenges to forest value chains.

On the whole there has been no significant effort to adopt a value chain approach to analyze forestry and most of the thrust has been on the initial stages of supply of forest products. Also forestry generally tends to ignore the value addition aspects and thus overlook the potential of forestry to increase rural income. Often rural communities are unable to benefit from value chains on account of the inadequate understanding of the value chain and limited bargaining power.

Considerable efforts are under way to formalize informal forest products value chains and most of the certification programmes and initiatives like FLEGT aim to develop formal value chains. Underlying these efforts is the assumption that formalization helps to enhance sustainability as also economic viability. However often such formalization adds to the costs,

reducing income earned by producers, especially when the transaction costs of formalization are high. Important take home messages from the presentation are:

- Enhancing income of rural communities from production and processing of wood and non-wood forest products will be effective only if there is a clear understanding of the value chains and how value is shared by different factors of production.
- Absence of understanding of the nature of value chain limits the ability of rural communities from realizing the full potential of emerging opportunities.
- Merely focusing on the production of raw material whether it be timber, wood fuel or non-wood forest products is insufficient to enhance income to rural communities.
- Value chains undergo rapid changes in the context of globalization. It is important to understand the implications of this to enable communities to take advantage of the opportunities as also to counter potential negative impacts.
- Improved access to information is key to enhancing the opportunity of small holders to participate in global value chains and to derive benefits.
- Benefits from formalization of value chains need careful analysis. From the livelihood perspective it could sometimes have negative impacts.

# <u>Lecture 5</u>: Use of social cost benefit analysis for measuring the impact of forestry programmes and projects on livelihoods

### --- Dr. C.T.S. Nair

Every public decision, including policies, plans, programmes and projects, tends to have varied economic, social, environmental and cultural impacts. Most of the time there is a tendency to focus on the economic costs and benefits, ignoring other cost-benefit dimensions. However in the context of growing concern about the social and environmental impacts of forestry it has become imperative that policies, programmes and projects are assessed on broader considerations and not just the economic impacts. Cost-benefit analysis is a key tool that facilitates such assessment. This lecture provides an overview of the use of cost benefit analysis particularly focusing on its use in deciding programme and project priorities in the context of rural livelihood improvement.

The presentation covers the following aspects:

- Project cycle and cost-benefit analysis.
- Scope of cost-benefit analysis: How the tool is used in different contexts.

- The evolution of cost-benefit analysis in the context of changing socio-economic development policies.
- Steps involved in undertaking cost-benefit analysis.
- Adapting cost-benefit analysis to assess the impact of programmes and projects on livelihoods.
- Challenges in the use of cost-benefit analysis.

Some of the important issues highlighted in the presentation are summarized below:

- 1. All interventions, whether related to changes in policies, programmes and projects alter the flow of costs and benefits. This affects the welfare of the present and future generations.
- 2. It is imperative that a systematic assessment is made about the changes in costs and benefits, including how it affects different groups of people within the present generation as also between different generations.
- 3. In implementing a programme or project, cost benefit analysis can be carried out at the project preparation phase ex-ante analysis to determine the anticipated net benefits from the project. It is equally important to undertake an ex-post analysis after the completion of the project to evaluate whether the anticipated net benefits have actually been realized and how the outcomes have actually deviated from what was visualized at the start.
- 4. Cost-benefit analysis methodologies have evolved over time reflecting the change in the development paradigm. This also reflects from whose perspective the cost benefit analysis is undertaken. From an individual's perspective much of the thrust is on financial costs and benefits. When assessment is undertaken from a broader national perspective, what is considered as costs and benefits changes. When a society assigns priority to accomplish broader social objectives for example improving the livelihood of rural communities, poverty alleviation, development of economically backward regions, etc. the approach to cost benefit analysis is modified to ensure giving priority to those investments that maximize the social contribution. In a similar way cost-benefit analysis can be designed to accommodate environmental objectives.
- 5. Steps involved in undertaking cost-benefit analysis were outlined and how eventually net benefits are derived accommodating the differing time periods when costs are incurred and benefits realized.

The presentation also points out some of the challenges in the use of cost-benefit analysis. It is one of the most misused tools in public decision-making and often cost benefit analysis is used to justify economically unviable investments through the selective use of costs and benefits. The presentation also outlines how some of the deficiencies of cost-benefit analysis could be addressed to make it an effective tool in public investment decision making.

### Lecture 6: Forest degradation and rehabilitation: Practices in Yunnan Province, China

--- Prof. Zhang Jinfeng

Forest degradation is changes within a forest that affect the structure and function of the stand or site and thereby lower its capacity to supply products or services.

Theories and principals of ecological succession, territoriality, niche, limiting factor, biological invasion, symbiosis, density effect, limiting factor, biodiversity and edge effect are suggested to be take into account in rehabilitation of degradation. Major approaches and means to overcome degradation are passive restoration, enrichment planting, direct seeding, scattered tree plantings, close-spaced plantings using limited numbers of species, and natural regeneration.

Examples of rehabilitation of degraded forest in Yunnan China in temperate climate zone is presented from aspects of ecological significance of forest in project area, forest degradation situation, types of degraded forest, problems faced in forest regeneration, and project activities. The main components of the rehabilitation project are tree selection and seedling raising, establishment of mixed plantation, promoted natural regeneration.

### Lecture 7: Forests and livelihoods of indigenous communities

### --- Ms. Rowena Soriaga

Two-thirds of around 350 million indigenous peoples in the world live in Asia Pacific. Many of them are traditionally dependent on forests for their livelihoods, but there is an increasing trend of moving away from this dependence as a way of coping with risks and uncertainties, and also to take advantage of opportunities coming their way, which are not much. While indigenous peoples are benefiting from the global attention on tackling sustainable development issues, inequity is still increasing due to various social, political, economic and environmental forces. The sustainable livelihoods framework has helped broaden the concepts of poverty and wellbeing, allowing indigenous peoples to express aspects of their life where poverty exists, and aspects where they are better off than others. Indigenous peoples represent 75% of world's diverse cultures and can play a huge role in forest conservation that benefits global society.

This lecture will explore the following topics:

- 1. Context of Indigenous Communities in Asia-Pacific forests;
- 2. Forces helping and hindering sustainability of forest cultures;
- 3. Forests in livelihood strategies and wellbeing of indigenous peoples' today;
- 4. Status of efforts to empower indigenous communities at the global, regional, national and local levels; and,
- 5. Potentials in improving forest conservation for the larger benefit of society through supporting livelihoods of indigenous peoples.

# <u>Lecture 8</u>: Co-management on forest conservation as the approach to improve rural sustainable livelihoods

### --- Dr. Wu Yusong

Reducing extreme poverty and hunger is an internationally agreed goal. Achieving this goal should seek to work across sectors and disciplines. Conservation can never be the solution to extreme poverty, but it can play a role, particularly in rural areas where poor communities are dependent on natural resources, and conservation can help find equitable and ecologically sustainable solutions. This presentation is based on the 10 years co-management project demonstration in Baimaxueshan Nature Reserve, and the case was selected as the top 20 best by IUCN and ADB in 2003.

### Lecture 9: Forestry and rural livelihood development

### --- Mr. Imran Ahmed

Bangladesh covering an area of 147,570 square km is surrounded by India in the west and east, Myanmar in the southeast, and the Bay of Bengal in the south. The economy lying between 20° 34' and 26° 38' north latitude and between 88°01' and 92°41' east longitude, is a low-lying active delta traversed by the numerous branches and tributaries of the Ganges, Brahmaputra and Meghna rivers. There are about 2.6 million hectares of forest area in the economy which is about 17.62 % of the total economy area. Bangladesh Forest Department has started functioning from 1862 and controls 10.84% land as forest in the economy.

There are mainly five types of forests in Bangladesh. These are:

1. Hill Forests: These forests are mainly tropical evergreen and semi-evergreen forests distributed in the hills of south-east and eastern districts. Total area of the hill forests is about 1.37 million hectares that amounts to 9.33% of the economy area. The dominant tree species of hill forest is Dipterocarps spp.

- 2. Sal forests: Sal (Shorea robusta) forest located in the central and north-western part of the economy. Area of Sal forest is about 0.12 million hectares which covers 0.81% of the economy area. Dominant tree species of this forest is Shorea robusta.
- 3. Mangrove Forests: This forest is known as the Sundarban, the world's largest mangrove forests, located in the southern districts. Area of this forest is about 0.6 million hectares including water and it covers about 4.07% of country area. The dominant tree species is Heritiera fomes. This forest is the habitat of the Bengal Tiger. It is also the biggest coastal fish spawning ground of the economy.
- 4. Mangrove plantation: This is the coastal accreted lands of coast facing district planted by Bangladesh Forest Department. This forest protects the coastal area of the economy against natural disaster like cyclone and associated tidal surges. The species used in plantation is Sonneratia apetala. The area so far covered by coastal plantation is about 0.2 million. Like natural mangrove forest, this plantation is also inundated regularly by tidal water. However, the mangrove plantation faces the risk of erosion and damaged by grazing.
- 5. Fresh water Swamp forests: The swamp forests area distributed in the north-eastern district of Sylhet and Sunamganj. The forest goes under water and remains submerged for about 6 month of the year. Area of this forest is more than 23000 hectares. The fresh water swamp forest is a breeding ground for inland fish population.

The tree grown other than the described forest land are called tree outside forest. Before National Forest and Tree Resources Assessment in 2005-07, the area under homestead wood lots was 0.27 million hectares. But it has been increased to 0.77 million hectares.

Like other developing economies of the tropical zone the forest of Bangladesh is under extreme biotic pressure. Till to date more than 100404.90 hectares forest is encroached (FD, Total encroached forest land, 2015). Community based forest management strategy targeted to recover the encroached forest land by engaging them in the natural regeneration activities. Initially it was found difficult to engage the local people. Now the situation has been changed substantially. Now we find tremendous competition among local people to enlist themselves as a participant in the social forestry management. Now the questions are whether governance is established in the management strategy or not? The present article tries to investigate it.

### National priorities, Bangladesh

- Vision 2021: reach to a middle income economy
- 7th Five year Plan (2016-2020): 20% of land area under forest coverage

- Hon'ble PM's France Commitment (2018) : national forest coverage will reach 24% from existing 22% by 2022
- Attain Sustainable Development Goal (2030)
- Legislations (forestry sector)
- Forestry Sector Master Plan (2017-2036), draft
- Forest Act, 1927
- Forest Policy 2016, draft
- o Social Forestry Rules 2004 (amendments, through 2011)
- Wildlife (Preservation and Security) Act, 2012
- Protected Areas Management Rules 2017

### Peoples' participation in forestry

- Community Forestry (1979s+)
- Agroforestry, Woodlot, Strip plantation (1980s+)
- Social Forestry in degraded forests (1987s+)
- Co-Management in PAs: Nishorgo program (2003s+)
- Mangroves restoration: 3F model (2011s+)
- Project-based livelihoods development programs.

### FD initiatives (Projects and programs)

- a. With livelihoods program
  - SEALS: Sundarbans Environmental And Livelihoods Security (SEALS) project, (EU, timeline)
  - Strengthening Regional Co- operation for Wildlife Protection Project (WB, timeline)
  - Integrated Community-based Adaptation through Afforestation and Reforestation (UNDP, timeline)
  - o Climate-Resilient Ecosystems and Livelihoods Project (USAID, 2012-2018)
  - Sustainable Forests and Livelihoods Project (WB, 2018-2023)
  - Sundarbans Surokha Project (WB, 2018-2023)

### b. Livelihood program

- Beneficiary profiles
  - i. Living in and around the forests
  - ii. Subsistence farmers
  - iii. NR Dependents
  - iv. Remote location
  - v. Least access to finance
  - vi. Beyond the markets
  - vii. Illiterate community
- viii. Climate vulnerable
- Interventions
  - i. Market-based Value-chain approach
  - ii. Financial and Entrepreneurial Literacy
  - iii. Skill development with Demonstrations (climate-smart agriculture, Aquaculture, poultry & livestock)
  - iv. Small-grants and Revolving funds for CBOs
  - v. Savings and Loan Groups
  - vi. Local Service Providers
- vii. Access to formal financial institutions
- viii. Promotion of micro-enterprise
- ix. Promotion of off-farm AIGAs (Eco-tourism, Handicrafts, job creation)
- x. Private sector engagement (PPP)
- xi. Networking with other projects/programs
- xii. Exposure visits, field days & demo plots.

#### Lessons learned

- A economy with 1200 people/sq km harbors multi-faced challenges
- Subsistence poor are not much threat to forests

- o Social forestry and co-management found effective in forest conservation
- Multidimensional initiatives (education, health, income increase) are mandatory for NR dependent communities
- Inter-agency coordinated efforts are the key
- o Government and development partners are much positive
- Smaller initiatives are effective big investments are essential

# <u>Lecture 10</u>: Application of "close to nature forestry" theory in sustainable management of birch plantation

--- Prof. Zhang Jinfeng

"Close to Nature Forestry" is approved to be one of the best practice for restoration and management of degraded forest in Europe. Eight principles for Close-to-Nature Forestry include soil protection and site specific species selection, increase of broadleaf and mixed stands, ecological improvement, preference of natural regeneration, improvement of forest structure, target diameter harvest, preservation of old trees, protection of rare flora and fauna, establishment of a network of forest conservation areas, sustainment of special forest functions, forest edge management and maintenance, ecological forest protection against natural disaster, ecosystem compatible game management, ecosystem compatible utilization of forest techniques.

The theory is introduced and applied in southern China for sustainable management of Birch plantation. An example of "Large Diameter Class Target Trees Management Technology" for birch plantation is presented. Including selection of target trees (target plants, target number, target diameter), appropriate time to select target trees, marking of target trees, identification and cutting of interferential trees, maintenance and harvesting of target trees.

### **ATTACHED FILES:**

### 1. PPT SLIDES OF KEYNOTE LECTURES

- Changing role of forests in people's livelihood: Past, present and future
  --- Dr. C.T.S. Nair
- 2) Forest policies, institutions and management: How they have accommodated livelihood needs of people

--- Dr. C.T.S. Nair

3) Forest governance and livelihood improvement

--- Ms. Rowena Soriaga

4) Small scale forestry enterprises, value chains and markets

--- Dr. C.T.S. Nair

5) Use of social cost benefit analysis for measuring the impact of forestry programmes and projects on livelihoods

--- Dr. C.T.S. Nair

6) Forest degradation and rehabilitation: Practices in Yunnan Province, China

--- Prof. Zhang Jinfeng

7) Forests and livelihoods of indigenous communities

--- Ms. Rowena Soriaga

8) Co-management on forest conservation as the approach to improve rural sustainable livelihoods

--- Dr. Wu Yusong

9) Forestry and rural livelihood development

--- Mr. Imran Ahmed

10) Application of "close-to-nature forestry" theory in sustainable management of birch plantation

--- Prof. Zhang Jinfeng

### 2. PPT SLIDES OF PARTICIPANT PRESENTATIONS

- 1) **Bangladesh:** Protected areas of Bangladesh: current status and efficacy for biodiversity conservation
- Cambodia: The role of forest resources and the challenge of improving local livelihood: A case of seed sources area in Siem Reap Province, Cambodia
- 3) Fiji: Forestry and rural livelihood development in Fiji
- 4) **Indonesia:** Integrating ethnographic approach on rural economic development: A preliminary result of peat swamp forest ecosystem community in South Sumatera, Indonesia

- 5) **Malaysia:** Community conserved areas (CCAS) under the EU programme tackling climate change through sustainable forest management and community development
- 6) **Myanmar:** Assessment of participatory afforestation programs for rural livelihood development and forest conservation: Case studies in Dry Zone, Myanmar
- 7) **Nepal:** Community participation in conservation area management in Nepal: Case study of Annapurna conservation area
- 8) **Papua New Guinea:** Papua New Guinea country report on community forestry and rural forest extension
- 9) **Philippines:** Forestry and rural livelihood development in the Philippines
- 10) Sri Lanka: Forest and rural livelihood development in Sri Lanka
- 11) **Thailand:** Strengthening the community-based mangrove management in Thailand: Lessons learned from mangroves for the future (MFF)
- 12) **Viet Nam:** The contribution of non-timber forest products (NTFPs) to the livelihoods of forest-dependent people: Case study in Vietnam

### 3. READING MATERIALS

### A. Reading materials provided by Dr. C.T.S. Nair

Lecture 1: changing role of forests in people's livelihood: Past, present and future

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