- Institutional Development
- Pilot Projects
- Partnership Development
 Financial Information
- Capacity Building
- Information Sharing





Asia-Pacific Network for Sustainable Forest Management and Rehabilitation

*Cover photo taken from APFNet project

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Message from APFNet Executive Director



Twenty twelve was another year of notable and significant accomplishments for the Asia-Pacific Network for Sustainable Forest Management and Rehabilitation (APFNet), and I am very pleased to provide a welcome message to readers of this 2012 APFNet Annual Report. During the year, institutional development deepened, APFNet pilot projects made good progress and increasingly

demonstrated their effects for the development of the Asia-Pacific region. In addition, existing partnerships were strengthened and new ones developed, the APFNet made important contributions to capacity building for sustainable forest management in the region, and information sharing was diversified with new, innovative products and approaches. All these took place with a still modest, effectively used budget where administrative expenses were carefully controlled.

The Table of Contents provides readers with a more detailed sense of the wealth of information found in this Annual Report. In this short message, I would like to highlight just a few accomplishments for our valued readers.

On the organizational development front, APFNet's regionally-representative Interim Steering Committee and Focal Points convened again, providing valuable input to the Secretariat, and adopting the APFNet Operational Framework and the 2012 Work Plan. The organization of the Secretariat was revised to clarify and rationalize responsibilities.

Chapter Two provides a flavor of the eleven APFNet-funded pilot projects via **overviews of six** of these projects which are currently underway and at varied stages of development: projects discussed includes those with Vietnam, Nepal, Cambodia, Chinese Taipei, and two regional projects: one whose scope includes the Greater Mekong Sub-region and is focused on furthering application of remote sensing technology, and a second whose objective is to protect the ecological security of Montane Mainland Southeast Asia. I particularly call the reader's attention to the fact that nearly half of APFNet's 2012 budget was devoted to advancing its suite of pilot projects. Two additional projects were approved during 2012. APFNet projects have been carefully developed after extensive research on the diverse needs of the region and its individual economies, and new project guidelines based on more precise project lifecycle descriptions are being finalized.

Since its founding, APFNet has been committed to working in partnership with its initial partners, and to developing new partnerships. The 2012 Annual Report discusses our work this year with the APEC and ASEM Dialogue Mechanisms, as well as two new partnerships, based on MoUs, with the Forest and Farm Facility (FFF) and the Asia-Pacific Association of Forestry Research Institutions (APAFRI). We also co-sponsored regional workshops on Mangrove management and Forest Carbon in the South Pacific Islands, and directly organized two capacity-building workshops, on the Role of Forest Resources Management in the GMS and on Agro-Forestry for Rural Development.

Universities also constitute important partners for APFNet. Asia-Pacific Forestry College Deans held their 2nd meeting under APFNet sponsorship, and have finalized a collaborative e-learning forestry curriculum. In cooperation with Southwest Forestry University, in 2012 APFNet established the APFNet Kunming Training Center. I am also happy to report that the first graduates of the APFNet Scholarship program finished their studies in 2012 with several already moving on to important positions. APFNet scholarship students now total 24, from throughout the region.

In 2012, APFNet also continued to develop its information sharing and communication activities. The network's website was expanded with several innovative features, and we issued four new publications, each of great value to furthering knowledge in the region of sustainable forest management.

In the final section of the annual report, interested readers can find detailed information on the allocation of APFNet's expenditures among the priorities laid out in the 2011-2015 Strategic Plan. In addition, I am pleased to note that during 2012, APFNet proceeded to establish the APFNet Fund. The Fund will provide a mechanism for those who recognize the growing importance of APFNet's activities in the region to contribute to sustaining and furthering APFNet's work. Those interested in the Fund can contact the Secretariat for additional information.

I trust readers will find this Annual Report interesting and informative. I would like to thank APFNet's many valuable partners for their good cooperation during the year, and the 20 person staff of APFNet for their hard, effective work throughout 2012.

Qu Guilin APFNet Executive Director



I. Institutional Development



Governance and organizational structure of APFNet

Figure 1: Organization chart of APFNet

During 2011-2013, a clearer and more solid operating mechanism was put into place for APFNet to better reach out to the Asia-Pacific region and beyond. The Interim Steering Committee, established in June 2011 as an advisory body, reviews the strategic documents of APFNet and makes proposals on carrying out activities of APFNet. It is composed of eight regional economies and three international organizations (Table 1).

Table 1: Composition of the Interim Steering Committee				
Eight economies:	Three organizations:			
China, United States, Australia, Malaysia, Indonesia, Vietnam, Thailand, Papua New Guinea	FAO/RAP, TNC, ITTO* *ITTO was incorporated as a new member in 2012.			

APFNet Focal Points act as a working mechanism for implementing APFNet activities in the Asia-Pacific region as well as a platform to exchange information and make recommendations for APFNet priorities and programs. The mechanism now covers 17 APEC economies, nine non-APEC economies and five international/regional organizations.



Second Meeting of the Interim APFNet Steering Committee

The Second Meeting of the Interim APFNet Steering Committee was held in the APFNet Secretariat in Beijing on 18 April 2012, in accordance with the Strategic Plan and the Rules of Procedure adopted earlier by the Interim Steering Committee. The meeting agreed to accept ITTO as a new member of the Committee, reviewed the APFNet 2011 Annual Report, and the Annual Work Plan for 2012. In addition, the Interim Steering Committee reviewed the APFNet Operational Framework and made recommendations on it to the focal points meeting.

Photo 1:

Group photo of the Second Meeting of the APFNet Interim Steering Committee



Third Annual Meeting of the APFNet Focal Points

The Third Annual Meeting of the APFNet Focal Points was held on 19 April 2012, following the meeting of the interim steering committee, to strengthen information sharing among focal points, to discuss and make recommendations on the 2012 APFNet work plan and to approve the final draft of the APFNet Operational Framework. The meeting brought together 36 participants from the Asia-Pacific region. Seventeen regional economies sent focal points or representatives, for a total of 30 participants. In addition, six persons attended as either focal point or representative of an international / regional organization.

Photo 2:

Group photo of the Third Annual Meeting of the APFNet Focal Points



Mr. Ab Rahim Nik, Deputy Secretary General, Ministry of Natural Resources and Environment of Malaysia, chaired the Focal Points meeting and briefed participants on the outcomes of the Second Meeting of the Interim Steering Committee. Mr. Qu Guilin, Executive Director of the APFNet Secretariat, presented the achievements and progress APFNet made in 2011, and introduced the annual work plan 2012, which was adopted after incorporating suggestions and comments from the participants. Meanwhile, progress and outputs of APFNet demonstration projects were shared by focal points from those economies.

Table 2: Presentations made during the Third Annual Meeting of the APFNet Focal Points
Demonstration of Sustainable Upland Agroforestry Systems in Chinese Taipei
Demonstration of Sustainable Forest Management with Community Participation in Nepal
Forest Cover and Carbon Mapping in the Greater Mekong Sub-region and Malaysia
Making Forestry Work for the Poor: Adapting forest policies to poverty alleviation strategies in Asia and the Pacific
Demonstration of capacity building for forest restoration and sustainable forest management in Viet Nam

Viet Nam was nominated to chair the next annual meeting and Malaysia will serve as co-chair.

APFNet Operational Framework formally accepted

Building on previous consultations and the Framework Document released in 2008, the APFNet Operational Framework was finalized after two meetings in November 2012, and sent to all involved economies for written confirmation. By the end of 2012, written confirmation was received from 18 economies and four international/regional organizations and the Operational Framework was therefore formally accepted.

To better support the operation of APFNet, during 2012 the Secretariat was restructured and responsibilities of each unit were laid out more clearly. The "institutional development unit" was renamed "planning and development" to include both project development and review of the Strategic Plan's implementation; the "project development and management unit" became the "project management unit", with a focus on the management and monitoring of project implementation; the "finance, human resources, and administration unit" was split into two separate units, i.e. "human resources and administration" and "finance". The secretariat now employs twenty staff, both professional and support.

Photo 3: APFNet Operational Framework



II. Pilot Projects

To advance the key priorities set out in the 2011-2015 Strategic Plan, APFNet has provided the Asia-Pacific region with additional opportunities and assistance by funding and technically supporting projects tailored to the varied needs and unique conditions of individual regional economies or of the region as a whole. APFNet has categorized the activities it funds into research projects, pilot and demonstration projects, and capacity-building projects. An overarching objective of APFNet funding is to help build the scientific and policy foundation for effective approaches to rehabilitation and sustainable forestry in the Asia-Pacific region, to help with concrete actions, and to build capacity through training and exchange of information. By 2012, eleven projects have been financed with a total amount of USD 6.4 million (see table 3.) Two projects were officially approved in 2012 concerning urban forestry in Thailand and conservation of trans-boundary ecological security in Montane Mainland Southeast Asia.

In response to the regional forestry context and to identify concrete APFNet project targets, APFNet conducted extensive research on the needs of the region. Workshops were organized to explore ways to further regional cooperation on forest projects and to better facilitate improved forest policies and useful concrete activities.

In addition, APFNet project procedures are regularly reviewed and improved, with the aim of developing and implementing a clear and effective project lifecycle proceeding from conceptual formulation to identification, implementation and management, to assessing lessons learned and sharing them to improve future projects. A new edition of APFNet project guidelines will be released during 2013.

APFNet has also built up close cooperation with international organizations and academic institutions. One important objective of this cooperation is to further science-based research on forestry policies. In particular, during 2012 APFNet has supported research on how to utilize forests to alleviate poverty, on how to transition forests toward sustainable management practices, that seeks a more scientific understanding of the role of forest and forest carbon stocks in climate change, and on the outlook for forests in the Greater Mekong Sub-region (GMS).

Photo 4:

APFNet program officer introducing APFNet Strategic Plan 2011-2015



Project ID.	Project Title	Executing Agency (EA)	Starting date (dd/mm/yy)	Duration (months)	Total Budget(US\$)	APFNet Grants(US\$)	Status
2010P1/4-NP	Demonstration of Sustainable Forest Management with Community Participation in Nepal	Federation of Community Forest Users, Nepal (FECOFUN)	01/09/2010	28	577,159	500,479	Closed
2010P2/4-VNM	Demonstration of Capacity Building of Forest Restoration & Sustainable Forest Management in Vietnam	PhuTho Sub-department of Forestry, Vietnam	01/09/2010	ω	624,750	499,750	Closed
2010P3/4-FAO	Making forestry work for the poor: Adapting forest policies to poverty alleviation strategies in Asia and the Pacific	FAO regional office for Asia and the Pacific	01/03/2010	12	340,000	340,000	Closed
2011P1/6-CTN	Demonstration of Sustainable Upland Agroforestry Systems in Chinese Taipei	Taiwan Forestry Research Institute, Chinese Taipei	01/09/2011	24	537,000	400,000	On-going
2011P2/6-CAF	Forest Cover and Carbon Mapping in the Greater Mekong Sub-region and Malaysia	Institute of Forest Resources Information Techniques(IFRIT), Chinese Academy of Forestry(CAF)	01/09/2011	24	1,266,900	1,028,800	On-going
2011P3/6-INM	Pilot Project of Multifunctional Forests	WYD Forest Farm	01/09/2011	36	1,500,615	1,176,000	On-going
2011P5/6-UBC	Adaptation of Asia-Pacific Forests to Climate Change	University of British Columbia	01/11/2011	36	2,211,700	1,139,200	On-going
2011P4/6-KHM	Multi-Functional Forest Restoration and Management of Degraded Forest Areas in Cambodia	The Institute of Forest and Wildlife Research and Development(IRD)	13/12/2011	96	441,830	386,570	On-going
2011P6/6-APA FRI	Comparative Analyses of Transitions to Sustainable Forest Management and Rehabilitation	Asia Pacific Association of Forestry Research Institutions (APAFRI)	01/10/2011	24	317,500	268,000	On-going
2012P1/2-THA	Strengthening Urban Forestry Demonstration Site of Bang Kachao (Thailand) for Biodiversity Conservation and Natural Learning Center	Royal Forest Department (RFD) of Thailand	March/2013	24	300,900	128,600	On-going
2012P2/2-UNU	Sustainable Forest Rehabilitation and Management for the Conservation of Trans-boundary Ecological Security in Montane Mainland Southeast Asia- Pilot Demonstration Project of Lao PDR, Myanmar and China/Yunnan	United Nations University Institute for Sustainability and Peace (UNU-ISP)	01/01/2013	36	650,000	500,000	On-going

Table3. A glimpse at APFNet- Funded Projects In order to provide readers with a sense of the scope and import of APFNet-supported projects, the following pages of this section of the Annual Report provide more detailed overviews of six field projects currently underway:

Secondary forests restored in Vietnam to increase the environmental services of the forest and raise livelihood for local communities (2010P2/4-VNM)

For decades, forest resources in Viet Nam have been subject to pressures that have resulted in widespread degradation and deforestation. As stated in APFNet's Strategic Plan 2011-2015, promoting forest restoration to meet multi-functional objectives is a thematic priority. Accordingly, APFNet has provided technical and financial support to a project to assist Que village in Tan Son district and Sinh Tan village in Thanh Son district of Phu Tho provinces to maximize the contribution of degraded forests to environmental services and livelihood improvement.

After being extended for 4 months, the project ended in December 2012. It has achieved almost all the expected objectives stated in the overall project work plan:

- One hundred hectares of severely degraded secondary forests were enriched by local communities and farmers, using five native timber spiecies¹ and six native Non Timber Forest Product (NTFP) species² through a participatory approach. The trees and NTFP are growing in good condition and promise to provide long term ecosystem services by enhancing the carbon sequestration, catchment and soil protection functions of these degraded secondary forests and by providing short and long term economic value. Additionally, villagers received payment for their labor involvement in project implementation and economic value from the initial products of short rotation NTFP. Both these sources contributed to increased income for local households and alleviation of poverty.
- Local procedures and processes for community- based forest management were developed in two pilot villages

through establishment of forest protection and development regulations. Local communities also improved their understanding of their role in managing their own forests, and their rights and responsibilities under Government policy.

- A number of community meetings, technical documents, training courses and study tours were conducted with local farmers, communities and authorities to introduce them to selected best practices of forest restoration, nursery establishment and sowing techniques. Consequently, local farmers and communities have a better understanding of the concept of SFM, and are actively involved in field practices about secondary forest restoration to help develop innovative ways of cultivating high-value timber species and NTFPs.
- Practical technical guides were compiled in the local language and disseminated to local farmers and communities, including four handbooks addressing, respectively, rehabilitation of natural secondary forest; disease prevention; establishment of nurseries; and production, harvesting and preservation of NTFPs. In addition, the project developed 15 leaflets focused on best practices for planting 11 selected species (timber tree species, NTFP species); cultivation of sloping land; grazing control; forest fire prevention; and understory planting. Thanks to the technical information provided by the project, the skill and knowledge of local farmers and communities in forest restoration and sustainable management was enhanced. As a follow-up to the project, the best practices developed on promoting forest restoration will be disseminated to twenty nearby communities in Phu Tho and other provinces.

² NTFPs are comprised of Dracaena ensifolia (Hươngbài), Desmodiumstyracifonium (Kim tiềnthảo), Calamustetradactylus (mâynếp), Erythropalumscandens (Bòkhai) and Morindaofficinalis (Ba kích)



Photo 6: Technical Books



Photo 5: Enriching Planting

¹ Indigenous species are mainly Erythrophleumfordii (limxanh), Micheliamediocris (giôixanh), Parashoreachinensis (chòchỉ), Dipterocarpusretusus (chònâu) and Manglietia conifer (mỡ)

Photo 7: High value seedlings in nurseries



Participatory sustainable forest management promoted and livelihood of forest-dependent people raised (2010P1/4-NP)

As the project title "Demonstration of Sustainable Forest Management with Community Participation in Nepal" indicates, this APFNet-funded project intends to disseminate international standard, participatory sustainable forest management in Nepal by establishing criteria and indicators of SFM with community participation, piloting through five pilot sites and disseminating findings to a larger group of communities. Special attention was given to insuring that women and ethnic minorities groups were included effectively in discussions about the project, and that project funds had an impact on the very poor.

In light of the adaptation of SFM Criteria and Indicators (C&I's), the extended community participation, the increased awareness of the value of the forest's ecological function, and the improved livelihood produced, the target objectives have been achieved.

- Criteria and Indicators (C&I's) of SFM and good governance (GG), and guidelines for adapting the C&I's were jointly developed and revised with the participation of communities in a variety of workshops. Five community forestry user groups (CFUGs³) from Kathmandu, Bhaktapur, Kavre, Morang, and Sunsari districts carried out forest inventory, biodiversity monitoring, nursery and research plot establishment, fire line and forest path construction and silvicultural operations such as weeding, planting, thinning and pruning as part of the project's design to demonstrate the SFM criteria and indicators on 673 ha.
- The best practices of the demonstration sites were incorporated into the constitution and forest operational plan of the CFUG's. Communities then learned how to manage their forests in a sustainable way with better understanding of SFM and GG. In addition, the Ministry of Forest and Soil Conservation (MFSC) Nepal, is using the community level guidelines developed as a reference to development national level guidelines for SFM.

Photo 8:

SFM principles, criteria & indicators



Ten community-based enterprises, funded jointly by APFNet, CFUGs and private entrepreneurs, were established through a feasibility study, value chain analysis, development of business operational guidelines and business plans in the regions of Dadeldhura, Dang, Morang and Kathmandu. Extensive consultations were carried out with government agencies, local communities and experts in the region as an integral part of establishing the Community-based Enterprises. These enterprises created 4,398 jobs and 70% of the proceeds were returned to CFUGs and distributed to poor and marginalized people. For example, Reugha Community Forest wood mill and furniture enterprise in Rolpa District was established to provide 259 people with jobs and skill-based training on forest product manufacture. Champadevi Bio-Briquette⁴ Enterprises in Kathmandu District provided 370 local employment opportunities and helped alleviate the increasing press employment opportunities and helped alleviate the increasing pressure on forest through decreased fetching of firewood from forests.

Multi-functional restoration and management of degraded forests demonstrated in Cambodia (2011P4/6-KHM)

About 400,000 ha, 4% of the total forest area in Cambodia, is managed by local communities living in or adjacent to the forests, and whose livelihoods depend on access to forest resources. However, a large proportion of the community forests in Cambodia are severely degraded due to increasing demand for forest products in times of rapid economic development. Due to this widespread degradation, forest quality and the yield from forest products are significantly declining which, in turn, severely threaten both biodiversity and the livelihood of local communities.

Two project sites have been selected in Siem Reap province and Kampong Thom Province to establish seedling nurseries for demonstrating forest restoration models and imparting skills to sustainably manage nurseries. The longer term objective is to restore degraded forests, and, as a result, improve the livelihoods of local communities and reverse the decline of biodiversity.

Based on local conditions and the results of phenology studies, 12 priority species have been identified for forest restoration in each site after seedling cultivation. Containing a production capacity of 10,000 seedlings per year, the two nurseries now serve as a training base for local officials, nursery managers and local farmers on techniques in seed pretreatment, potting mixes, growth of target species and

Photo 9: Handmade paper

Photo 10: Champadevi Bio-Briquette manufacturing

Photo 11: SFM&GG Workshop in Rolpa, mid-western cluster



³ Forest Users' Groups (FUGs) are independent corporate bodies, with powers to buy or sell property, to negotiate and sell timber, to hold separate bank accounts and transact independently, to punish offenders, etc. The groups receive 100 percent of the proceeds of a timber sale, and are required to spend it on village development and forest regeneration (although amendments may reduce the percentage). By 1999–2000, the government of Nepal had given control of 17 percent of the total forestland to Forest User Groups in 73 districts.

⁴ Biomass briquettes are a biofuel substitute to coal and charcoal.Bio briquettes, mostly made of green waste and other organic materials, are commonly used for electricity generation, heat, and cooking fuel.(reference from Wikipedia)

Photo 12:

Nursery construction in Siem Reap site

Photo 15: Lectures at Kampong Thom site

Photo 13:

Completed nursery in Siem Reap site

Photo 14: Basic information collection for seed phenology study

Photo 16: Field practices at Kampong Thom site



nursery management, and will also facilitate ground data collection for later research in 2-3 ha pilot sites scheduled for the following project year.

Training courses were held during the project's first year to provide knowledge and skills on nursery management to the two participating communities and another 10 Community Forests (CFs) invited by the local Forestry Administration (FA). In total, 40 local farmers received theoretical training by the project consultants from the Royal University of Agriculture (RUA), Cambodia on planning for seedling production from seed collection, seed pretreatment, and maintenance of seedlings in the nursery and were actively involved in related field practices. An evaluation questionnaire showed that 55% and 74% of participants in the two sites were able to apply the knowledge they were taught.

An agroforestry model for upland areas tested in Chinese Taipei (2011P1/6-CTN)

Chinese Taipei boasts lush and diverse forests which occupy 58.5% of the land area. Upland areas are especially vulnerable and unstable. Huge landslides and debris flow disasters have occurred frequently in upland areas in recent decades. Meanwhile, continuous agricultural activity has been undertaken in uplands to support people's livelihoods. APFNet has supported a project on upland areas in collaboration with Taiwan Forestry Research Institute (TFRI). Specifically, at least two agroforestry management systems adaptable to different upland areas will be

developed, and criteria and indicators (C&Is) will be demonstrated. These systems, once developed and piloted, will be initiated in a larger area and become important criteria for forest area governors in taking decisions on how to approach management of upland areas.

Four study sites have been selected in Pinglin (in the north), Kalala (in the east) and Lushan and Yuchi in the central part to present varied weather and soil conditions. To develop successful agroforestry models, farmers in the four study sites have been persuaded to interplant different cash crops with other plants, e.g. tea with Cinnamomumkanehirae and Calocedrusformosana; Ficuspumila L. var. awkeotsang (Makino) Corner with betel palms, or betel nut trees inter-planted with coffee and Taiwanese camphor.

In these selected upland villages, income and land productivity were analyzed to determine the economic benefits brought to farmers, and soil and water conservation demonstration sites were set up to better measure the ecological benefits brought to the mountainous area with the introduction of agroforestry system management.

Training workshops were held in each study site to spread knowledge about the agroforestry system, about tending inter-planted seedlings, and about producing agroforestry products. Most farmers expressed a desire to attend additional workshops in the future.

Table 4: Pilot Site Basics

Site	County/City	Сгор	Tree species	Area(m) ²	Elevation(m)
Pinglin	New Taipeicity	Tea	Cinnamomumkanehirae	3,800	400-600
			Calocedrusformosana	10,000	1,460
Lushan	Nantou	Tea	Phellodendronamurense var. wilsonii	1,200	
			Prunustaiwaniana	1,200	
Yuchi	Nantou	Betel nut	Cinnamomumkanehirae	3,600	650
Kalala	Hualien	Coffee	Cinnamomumosmophloeum	2,800	200

Photo 17: Trees were interplanted in March 2011

Photo 18: Lienhuachih soil and water conservation demonstration site

Photo 19: Local farmers from Kalala village attending the workshop.

Photo 20: Farmers practicing grafting during the workshop



Forest cover and carbon mapping underway in GMS and Malaysia to foster policy making (2011P2/6-CAF)

Forest cover and carbon mapping have been deemed crucial to the realization of the fourth APFNet thematic priority, namely, *monitoring progress towards the APEC 2020 forest cover objective*. APFNet has brought together government agencies, research institutes, and universities in the Greater Mekong Sub-region (GMS) and Malaysia via supporting a project to assess forest cover 2005-2010 and develop associated maps. The project also will assess carbon stocks for 2005, including developing detailed maps based on remote sensing technology. (See Photos 21-22) Among the key cooperating organizations are: Institute of Forest Resources Information Techniques (IFRIT), Chinese Academy of Forestry (CAF).

- Cambodia-Forestry Administration (FA)
- Guangxi, China-Guangxi Forest Inventory & Planning Institute (GFIPI)
- Laos-National University of Laos (NUoL)
- Malaysia-Forest Research Institute Malaysia (FRIM)
- Thailand-Royal Forest Department of Thailand (RFD)
- Viet Nam-Forest Inventory & Planning Institute (FIPI)
- Yunnan, China-Southwest Forestry University (SWFU)

Photo 21:

Biomass distribution map of GMS with 300m spatial resolution



Participating economies in the region are collaborating to develop an accurate map of forest above-ground biomass, with free access to remote sensing data and technical guidance on the methodology of data processing, including development of common processing and forest information extraction methods. Twenty-six specific test sites have been selected for field measurement within the entire project area. New technologies of remote sensing such as Light Detection and Ranging (LiDAR) and Synthetic Aperture Radar (SAR) are being integrated with other optical remote sensing technologies.

The project moved forward impressively during 2012. Specifically:

- High resolution remote sensing data such as Rapid Eye, as well as reprocessed data of coarse/mid resolution remote sensing capabilities such as from MODIS/ MERIS, Landsat TM/ETM+ and spaceborne LiDAR (ICESat GLAS) have been collected and distributed to corresponding work teams in the GMS and Malaysia, among others, for further research.
- Core researchers in each participating economy have been trained via thematic workshops on the methodology of estimating forest cover and carbon stocks based on the remote sensing data provided. A training workshop was held in June 2012 in Vientiane, Laos for representatives of participating economies. Trainees also reported that field surveys for ground-truthing are being conducted in the test sites as scheduled.
- Forest classification and above-ground biomass estimations for each economy have commenced. In addition, the preliminary results of measurements of forest cover and carbon storage in the region were disseminated in international events like the 33rd Asian Conference on Remote Sensing, attracting significant attention from regional researchers and organizations. In late November, 2012, the Chinese Academy of Forestry, working in partnership with the Royal Forest Department of Thailand, organized a mid-term evaluation project to assess project implementation to date. The evaluation found that the project is progressing very well, adding that additional emphasis would be welcome on completing field measurements in a timely manner, expanding training opportunities, and ensuring that special attention is given to building capacity in economies and partners relatively inexperienced with the application of remote sensing in forestry.

Trans-boundary ecological security conservation in Montane Mainland Southeast Asia (MMSEA) (2012P2/2-UNU)

The MMSEA region matters for several reasons: it includes a major portion of Southeast Asia's remaining tropical forest, ethnic minority groups are highly dependent on MMSEA forests, it harbors a multiplicity of endangered and endemic species of global significance, and it serves as the headwaters or includes the watersheds for several large rivers. Despite its importance, and the fact that the MMSEA is under threat from continuous loss of biodiversity as well as fragmentation and degradation of forest habitats, it has received only limited support from regional organizations or institutions.

"APFNet will work with other key domestic and international organizations and institutions focused on forest rehabilitation to spread the understanding of ecosystem-based approaches to forest rehabilitation and management."⁵

Photo 22, Yunnan Province 2005 Classification Map

Photo 23: Location of pilot sites



Delverg, chiva Delverg, chiva Bayringhikir, Myannar Pak kerig, Laos Project_sites 00 15 0 0 Deluences Deluences To complement existing regional efforts, APFNet is funding a project to broaden knowledge and diversify options for community-based sustainable forest rehabilitation and management. These results will then be up-scaled and replicated in the wider MMSEA region in order to improve upland peoples' livelihoods and safeguard trans-boundary ecological security in the MMSEA. This overall goal is to be achieved by synthesizing knowledge of ecological, social, cultural and economic processes associated with forest degradation and rehabilitation in pilot sites (see Photo 23), developing and demonstrating models for community-based rehabilitation of degraded forest practices and related toolkits, and developing tailored programs to build capacity of involved stakeholders.

The United Nations University for Sustainability and Peace (UNU-ISP) serves as project coordinator (see Photo 24) in cooperation with the Yunnan Academy of Forestry (YAF), China; the national agriculture and forestry research institute (NAFRI), Laos; and the forest research institute (FRI), Myanmar; in four sites in Myanmar, Laos and China. To be officially launched in 2013, the project will during its first year include interdisciplinary assessment and participatory planning for SFM, experiment with different methods in the pilot sites, build the capacity of project partners, and synthesize project findings. During its second and third years, the project will then prepare a regional strategy to safeguard MMSEA trans-boundary ecological security.

⁵ from APFNet Strategic Plan2011-2015

Photo 24: Agreement signing at the inception workshop





Contribution to high-level dialogue mechanisms

The Strategic Plan lists supporting regional policy dialogues as one of the key implementation tools of APFNet. High-level dialogue mechanisms have therefore been explored and expanded to encourage stronger political commitment to sustainable forest management and to uplift forestry's profile in the region.

APEC cooperation

Forests in the Asia-Pacific region provide more than just timber and products for consumption and trade. Forests have the potential to make increasing contributions to regional development and environmental protection, but also face severe challenges to their sustainability and health. Recalling this, APEC ministers and high-level officials responsible for forestry gathered for the first time in late 2011 in Beijing China to consider how cooperation could be established and enhanced in the long run to fully realize the values of regional forests through concrete action.

APFNet had the honor to co-sponsor and organize the first Ministerial Meeting, and has continued its effort to support follow-on action. Among several APEC economies interested in hosting high-level events focused on regional forests, Peru was particularly keen to host the Second APEC Forestry Ministerial Meeting, and also proposed the meetings on a regular basis. Sharing the same commitment to promoting sustainable forest management in the region, APFNet and the Ministry of Agriculture of Peru, the host of the meeting, have agreed that APFNet will act as a co-sponsor and provide financial support.

• ASEM cooperation

In July, 2012, APFNet, in consultation with the Laotian Ministry of Agriculture and Forestry (MAF), proposed implementing a demonstration project on sustainable forest management in Laos under the platform of the Asia-Europe Meeting (ASEM). The proposal was supported by China. The initial proposal was also incorporated into China's input to the ninth ASEM Summit, and was announced by H. E. Mr. Wen Jiabao, Premier of China, at the November 2012 ASEM meeting in Vientiane, Laos. The cooperating parties believe that implementing such a project under the auspices of ASEM will spur broad-scale cooperation on sustainable forest management. Discussion with the European Forest Institute (EFI), a mainly EU funded institute, on possible involvement in this demonstration project was explored.

Cooperation with international organizations

Partnering with existing international/regional organizations and initiatives has proven to be a plus for pursuing the shared vision of promoting sustainable forest management in the Asia-Pacific region and beyond. In 2012, APFNet signed two additional Memoranda of Understanding (MoU), with the Forest & Farm Facility (FFF) (box 2) and the Asia-Pacific Association of Forestry Research Institutions (APAFRI) (box 3) respectively. Cooperation with IUCN Asia and INBAR was also being explored.

Working to leverage the multiple benefits of forests is a shared vision of both APFNet and FFF, and ten economies and five international/regional organizations are involved in programs and activities of both organizations. Specific forms

Box-1 The 9th Asia-Europe Meeting Summit, ເຍອດອາເຊັມ ຄັ້ງທີ 9 5 November 2012, Vientiane, Laos

The 9th ASEM Summit was hosted by Laos in its capital, Vientiane, on 5-6 November 2012 and attended by the Heads of State and Government of forty-nine Asian and European economies, the President of the European Council, the President of the European Commission, and the Secretary-General of the Association of South East Asian Nations (ASEAN). The theme for the Summit was Friends for Peace, Partners for Prosperity.

Chinese Premier Wen Jiabao delivered the keynote speech, calling for greater cooperation to tackle the world's challenges. At the end of his speech, Wen Jiabao made a four-point proposal on Asia-Europe cooperation: to hold seminars on the future development of ASEM meetings; to establish a technological and innovative cooperation network to better tap water resources in Asia and Europe; to carry out the ASEM forestry demonstration project; and to make better use of the Asia-Europe Fund.

Source: ASEMINFOBOARD



of cooperation are currently under discussion. The cooperation between APFNet and APAFRI focuses primarily on promoting forestry research and extension and related capacity building activities.

Box-2 Asia-Pacific Association of Forestry Research Institutions (APAFRI)

The Asia-Pacific Association of Forestry Research Institutions (APAFRI) is an independent non-profit body which aims to enhance research and technology development capabilities in support of conservation and management of forest resources in the Asia-Pacific region. It has been recognized as the Asia-Pacific chapter of the International Union of Forest Research Organizations (IUFRO).

APFNet, in collaboration with IUCN, PEMSEA, ITTO, TNC, WWF, and Guangxi Mangrove Research Center (GMRC), convened a Regional Workshop on Incentives to Catalyze Sustainable Management and Restoration of Mangroves in

Photo 25:

Group discussion of Incentives to Catalyze Sustainable Management and Restoration of Mangroves in Asia and the Pacific



Photo 26: Regional Workshop on Forest Carbon Assessment and Monitoring in Pacific Island Economies

Asia and the Pacific in Beihai, China from 29-31 October, 2012. The workshop identified the role of mangrove systems in eco-protection, projects that benefit restoration and Pacific sustainable management of regional mangroves, and incentive mechanisms, including ecological evaluation, to catalyze better mangrove management in Asia and the Pacific.

APFNet also partially sponsored the Regional Workshop on Forest Carbon Assessment and Monitoring in Pacific Island Economies, which was organized by the Secretariat of the Pacific Community (SPC) during 18-22 June 2012, in Nadi, Fiji. The workshop provided participants from the Pacific island economies a useful forum for sharing information on REDD+ programs in their respective economies.

Academic and research institutions

Academic and research institutions that are able to provide strong technical support and cultivate competent forestry practitioners are important partners for APFNet to better achieve its goal of promoting sustainable forest management. Under the Asia-Pacific Forestry College Deans' Meeting Mechanism, initiated by APFNet in 2010, a project focused on developing e-learning forestry curricula was designed in 2012, with implementation scheduled to begin in 2013.

Box-3 Asia-Pacific Forestry College Deans' Meeting Mechanism

The inception of the Asia-Pacific Forestry College Dean's Meeting Mechanism was in July 2010, when the first Forestry College Deans' Meeting in Asia and the Pacific was held in Beijing. It gathered 80 participants from 37 regional forestry colleges / universities and six international organizations. Deans agreed to meet on a regular basis to jointly promote cooperation of forestry academic institutions. So far, two meetings have been held and a relevant training workshop organized.



IV. Capacity Building

Being one of APFNet's core implementation tools, capacity building contributes to achieving APFNet's mission by strengthening regional capacities and better promoting sustainable forest management. At the present stage, the emphasis is on thematic training and scholarship programs. Additional activities to foster capacity building are in the planning stage.

Thematic Training a continuing attraction to the region

Since 2009, APFNet has sponsored eight training workshops under the two themes of Forest Resources Management, and Forestry and Rural Development. The workshops have helped a total of more than 140 participants from the Asia-Pacific region strengthen their knowledge of both the theory and practical application of sustainable forest management. To fully leverage the benefit of these training workshops, their conclusions have been compiled and published, and are available for dissemination and sharing at a broader scale and at international / regional events.

In 2012, 40 forestry government officials, practitioners, and researchers from 15 developing economies attended two APFNet workshops, i.e. Workshop on the Role of Forest Resources Management in the Greater Mekong Sub-region, and the Workshop on Agroforestry for Rural Development. More than a dozen regional experts were invited to deliver lectures. Participants from different economies then exchanged best practices and lessons on how to diversify household incomes, reduce poverty, and restore the environment by combining trees with agricultural cash crops and/or animal husbandry. The specifics of the two workshops are introduced in Table 5.

• Cooperation with the Mekong Institute (MI)

The Workshop on the Role of Forest Resources Management in the Greater Mekong Sub-region (GMS) was the inaugural workshop that APFNet held in cooperation with the Mekong Institute (MI). The workshop not only provided a good opportunity for participants to practice how to improve watershed management through better forestry, but also explored the possibility of new opportunities of cooperation with MI in both capacity building and in implementation of regional demonstration projects.

The participants' reports of the joint APFNet-MI Workshop on the Role of Forest Resources Management in the Greater Mekong Sub-region have been published. The output from the Workshop on Agroforestry for Rural Development is being compiled for publication.

Establishment of the APFNet Kunming Training Center (APFNet- KTC) to strengthen capacity building activities

Building on the close cooperation between the Southwest Forestry University and APFNet, the APFNet Kunming Training Center (APFNet- KTC) was set up in November 2012, paving the way for providing better designed, more systematic, and more professional training for forestry practitioners across the region. APFNet-KTC is expected to play a significant and increasing role in developing training programs and providing technical support. This will expand opportunities for foresters in the region to improve their capacity and ability for practicing sustainable forest management.

Photo 27: The Jaunch ceremony of the APFNet Kunming Training Center (APFNet- KTC)



Table 5:

APFNet Thematic Training Workshops in 2012

Workshop	Duration	Lectures
The Role of Forest Resource Management in Greater Mekong Sub-region (GMS) (under the theme of Forestry and Rural Development)	11-21 July 2012	 The importance of the forest and watershed management for sustainable livelihoods and development in GMS economies; Governance and law enforcement for watershed-based forest management; Forest-based management and biodiversity conservation in the GMS; Reducing emissions from deforestation and forest degradation: achievements and challenges in the GMS; Watershed forest management and control of water and soil erosion; Best practices and tools to ensure forest protection and efficient utilization in watershed areas; Protection of a trans-boundary nature reserve.
Workshop on Agroforestry for Rural Development	12-22 December 2012	 Socio-economic and environmental aspects of agroforestry; The adaptation of traditional agroforestry systems for sustainable land use; The role of agroforestry in the development of community forestry; Organic agroforestry for pro-poor development in upland areas; Ancient arbor tea plantations and management.

APFNet Scholarship Program

Initiated in 2010, the APFNet scholarship program (ASP) aims to provide opportunities for qualified forestry officials, talented foresters, and young scholars specialized in forestry from developing economies in Asia and the Pacific to pursue further study in higher institutions of forestry education in China.

In 2012, the third cohort of eight APFNet scholarship program students from Cambodia, Lao PDR, Malaysia, Indonesia, Myanmar, Nepal and Thailand was selected to major in Forestry and Forest Economics and Policy. So far, the number of ASP students admitted into the program totals 24.

T	a	bl	е	6:	

APFNet Scholarship Students (2010-2012)

Economy	2010	2011	2012	
Cambodia	2	1		
Lao PDR	2	1	1	
Bangladesh	2		1	
Malaysia		2	1	
Indonesia			1	
Thailand	1	1	1	
Mongolia		1		
Myanmar		1	1	
Nepal		1	1	
Papua New Guinea	1			
Viet Nam			1	
total	8	8	8	

The first cohort of APFNet Scholarship Program (ASP recipients), eight forestry officials and scholars from Bangladesh, Cambodia, Laos, Papua New Guinea and Thailand, fulfilled their two-year study program in Beijing Forestry University and graduated as scheduled in June, 2012 with their Master's degree in forestry or forestry economics. Equipped with advanced forestry knowledge and independent research capabilities gained during their two year study, one student from Bangladesh will go to Britain to pursue his doctoral degree, and two from Cambodia began new careers in the United Nations Environment Program (UNEP) Cambodia and the World Wild Fund for Nature (WWF) Cambodia respectively.

Box-4: Messages from the first batch of APFNet scholarship graduates

During my two-year study in China, I found people on campus friendly, helpful and willing to help each other, though we just know each other for the first time. Not only in school, but also there are many people off campus happy to help others, especially foreigners... The most useful learning is my course study. I have improved my academic skill from the lectures and the activities including wonderful study tour to see the real practices of what we have learnt in the classroom.

- PrakOusopha (Cambodia)

I'd like to express my thanks to APFNet for granting me the Scholarship, offering me such a great chance to study at Beijing Forestry University. I am very pleased wihwith all facilities and scope to improve my academic and professional skills for my future career and hope I can use the knowledge and skills I got from BFU for a better management of natural resources in Laos.

- VongphetSIHAPANYA (Laos)

I am really grateful for my supervisor. She is so kind and always ready to give me her ear not only in terms of study but also my daily life at BFU. She offers good chances to me to attend seminars in the School of Forestry as well as field work with my Chinese peers. I have learnt and exchanged many things through those activities and benefited a lot from them...

- UtharatPupaiboon (Thailand)

Photo 28:

First cohort of APFNet Scholarship students graduated from Beijing Forestry University (28 June, 2012)



V. Information Sharing

New website with expanded features launched.

During 2012, we completed the APFNet website redesign and successfully launched a new website. The expanded website was designed to provide a comprehensive overview of our vision and strategy, update progress and outcomes of grant projects and capacity building activities, and share findings from research and projects. Improvements to the site included simplified information architecture, a fresh, user-friendly design, and news subscription services.

Learning hub

As envisaged in the APFNet Strategic Plan 2011-2015, a learning hub was established to enhance information sharing among forestry practitioners. Visitors can have free access to video lectures recorded during the series of capacity building workshops and get a glimpse of events/ or projects of interest by surfing the photo gallery.

The Asia-Pacific forest and forestry database

This database originated from a project implemented by the Chinese Academy of Forestry, and is a searchable database on forest resources, forest institutions, trade information and contacts of experts involved in APFNet activities and other noted experts in the Asia-Pacific region.

Asia-Pacific forestry enterprises platform

APFNet cooperated with forestry enterprises of the Asia-Pacific region to organize a platform to promote exchange of information concerning forest product supply, to showcase outstanding initiatives by private enterprises, and to help forestry enterprises identify business opportunities at home and aboard. This feature is currently available only in a Chinese version.

Publications



Roles of Forest Resource Management in the Greater Mekong Sub-region

ISBN 978-7-5038-6887-0



Ecological Rehabilitation in China -achievements of Key Forestry initiatives

ISBN 978-7-5038-6869-6 As part of its capacity building program, APFNet together with the Mekong Institute organized a workshop on the Roles of Forest Resources Management in the Greater Mekong Sub-region (GMS). Twenty five participants from six member economies (Cambodia, China, Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam) met in Kunming, China to exchange best practices and lessons learned on how to improve watershed management through better forestry. This book is a compilation of the participants' report, and explores different ways adopted by the six economies to better manage their forest resources and maintain watersheds. In addition, a case study or document on best practices of each economy is included.

The last three decades have witnessed great effort by China in afforestation/reforestation to rehabilitate the ecological system. This book documents 7 major initiatives or programs undertaken by the Chinese government since the 1980s to deal with alarming environmental and ecological degradation and the achievements made through program implementation. APFNet would like to make the information on the implementation and approaches adopted in these programs available to other economies in the Asia-Pacific region and beyond. To complete this booklet, APFNet invited experts and professionals in China's State Forestry Administration to compile and write the individual chapters.



Measuring Forest Degradation (Chinese-language Edition)

ISBN 978-7-5038-6876-4

Asia-Pacific Forestry (Chinese-language) In 2011, Unasylva No.238, Vol62, a FAO journal, published a selection of papers initially developed as part of a special study FAO and its partners conducted on forest degradation. The goal of the study was to come up with a reasonable set of indicators that can be easily measured and that provide countries with information on the state of forest degradation. The articles presented in the issue demonstrate the breadth of expertise and variety of perceptions among those invited to participate in the special study. In 2012, APFNet collaborated with FAO on the publication of a Chinese-language edition of this issue of Unasylva to accelerate its availability and awareness among within Chinese readers.

In 2012, APFNet commenced publication of a new periodical, Asia-Pacific Forestry, designed particularly for Chinese-speaking forestry officials and researchers, to whom it is distributed free of charge, and who warmly welcomed the first edition. The publication is devoted to introducing readers to important issues, innovative research findings, and developing trends in the Asia-Pacific region so that decision-making is better informed by a regional perspective. The publication, planned for twice yearly editions, will also provide an additional venue for showcasing best practices and key research findings developed through APFNet activities. For the inaugural first edition, APFNet cooperated with FAO to translate an eight-article FAO policy brief. One of the eight articles reports on the outcomes of the APFNet-funded "Making Forests Work for the Poor: Adapting Forest Policies to Poverty Alleviation Strategies in Asia and the Pacific", of which FAO was the implementer. Other topics in the first edition include greening forest development policy, improving training and education, governance, and women and forests.

VI. Financial Information

APFNet income and expenditures in 2012 totaled 32,461,500 (CNY), or approximately 5.164 million (USD). China continued to be the major source of funds. Significant additional direct or in-kind resources also supported APFNet's work through the contributions of Executing Agencies of APFNet-funded projects.

Around 75% of expenditures in 2012 were spent on the pilot projects, capacity building, policy dialogue and communication and information sharing. Around 25% of expenditures were allocated to administrative costs (such as staff, equipment, rent, and office operations).

Almost 48% of total 2012 expenditures went directly to formulate and implement Pilot Projects. An additional 10.5% was devoted to capacity building and policy dialogue, while almost 3.4% was devoted to communication and information sharing. Table 7 provides detail on 2012 expenditures on key APFNet projects and activities.

Asia-Pacific Network for Sustainable Forest Management and Rehabilitation Fund

In order to broaden the source of APFNet funds and enhance the capacity for sustainable development, APFNet has applied to the Ministry of Civil Affairs of the People's Republic of China to establish an "Asia-Pacific Network for Sustainable Forest Management and Rehabilitation Fund". To date, seven enterprises and institutions have donated 1.2 million (CNY) as starter funds and the Ministry of Civil Affairs is working through the approval process. The Asia-Pacific Network for Sustainable Forest Management and Rehabilitation Fund so far comes mainly from voluntary donations of social organizations, enterprises, institutions and individuals. The fund will accelerate partnership building, greatly improve financing capacity, and enhance the replenishment of APFNet organizational funds.

Tabel 7:

Key APFNet Projects and Activities in 2012

No.	Projects/Activities	Expenditure(CNY)
	Capacity Building	
1	Forest resources management in GMS	542,268
2	Training workshop on agroforestry and rural development in Asia-Pacific region	538,737
3	Scholarship Programme in Beijing Forestry University	1,000,000
4	Establishment of APFNet Training Center in Yunnan	450,000
	Subtotal	2,531,005
	Policy Dialogue	
1	Study on forestry policies in GMS	1,162,188
2	Survey on forestry education in Asia-pacific region	60,000
3	Steering committee and focal point meetings in Beijing	246,229
4	World Conservation Congress in Jeju	160,942
5	Workshop on sustainable mangrove management	284,931
	Subtotal	1,914,290
	Pilot Projects	
1	Demonstration of Sustainable Forest Management with community participation in Nepal	1,113,552
2	Demonstration of capacity building of forest restoration and sustainable forest management in Vietnam	763,053
3	Making forestry work for the poor: Adapting forest policies to poverty alleviation strategies in Asia and the Pacific	376,606
4	Comparative Analyses of Transitions to Sustainable Forest Management and Rehabilitation	729,301
5	Forest Cover and Carbon Mapping in the Greater Mekong Subregion and Malaysia	959,872
6	Forest Cover and Carbon Mapping in the Greater Mekong Subregion and Malaysia	2,839,884
7	Pilot Project on Multifunctional Forests	2,000,000
8	Adaptation of Asia-Pacific Forests to Climate Change	1,910,217
9	Multi-function forest restoration and management of degraded forest areas in Cambodia	856,099
10	Sustainable Forest Rehabilitation and Management for the Conservation of Trans-boundary Ecological Security in Montane Mainland Southeast Asia– Pilot Demonstration Project of Lao PDR, Myanmar and China/Yunnan	0
11	Strengthening Urban Forestry Demonstration Site of Bang Kachao (Thailand) for Biodiversity Conservation and Natural Learning Center	0
	Subtotal	11,548,584
	Information Sharing	
1	Establishment of database on forestry resources in the Asia-pacific region	370,000
2	Publication of "Roles of Forest Resource Management in the Greater Mekong Sub-region"	70,000
3	Publication of "Measuring Forest Degradation"	76,750
	Subtotal	516,750
	Total	16,510,629



Asia-Pacific Network for Sustainable Forest Manegement and Rehabilitation

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