

3. Project Achievements in 2008

2008 was a busy year at all three demonstration sites in Hunan, Sichuan and Yunnan, as pilot sites were developed in each location in order to test, review and demonstrate management techniques promoted under the project.

In Yanling, Hunan, the site was developed to eliminate or minimize biodiversity threats in the natural bamboo forests surrounding the township, which are increasingly being subjected to more intensive management practices. As well as advocating more sustainable management practices and the merits of greater biodiversity conservation to local farmers and foresters through training workshops and study trips, the potential for the uptake of certification of bamboo forests was analyzed. Research surveys were conducted in May- June on the potential for Sustainable Forestry Management and Chain of Custody certification (under the FSC scheme) to



understand whether bamboo in these areas would benefit from a certification scheme.

In Shuanghe, Sichuan, a pilot site was established to promote biodiversity in managed bamboo forests already under heavy cultivation. Through the use of biodiversity-friendly guidelines on management practices concerning density of the forests, use of fertilizers, and the reintroduction of more species into the forests,

the site will gradually experience greater biodiversity gains while improving the long-term gains of farmers. Research was undertaken into existing attitudes towards biodiversity and bamboo management practices, as well as the socio-economic conditions in the area, which



influence the willingness of farmers to take up proposed management practices. Trainings have also been conducted for local farmers and foresters on biodiversity and sustainable management techniques. Training was also provided to local officials from the Forestry Department to improve institutional capacity in providing extension work to farmers.

In Yunnan, a demonstration site has been established in order to test technologies and



practices with an aim of better protecting *Qiongzhusa tumidinoda*, an endangered bamboo species which is subject to

overharvesting. Biodiversity surveys of the bamboo's habitat have been undertaken, as well as reports on the current forestry practices and provincial government policies. Trainings on sustainable management have been given to local farmers, and local outreach activities, such as a school play have been used to promote awareness on biodiversity.

Across all sites, publications developed under the project (jointly with the EU Natural Forest Management Project) on best practices for management and harvesting have been disseminated, and SWOT (Strength, Weakness, Opportunities and Threats) analyses of existing provincial forestry policies have been undertaken. Also, in response to the destructive snow fall of early 2008 which destroyed large



areas of natural and cultivated forests, special trainings were given in post-havoc bamboo management.

At a national level, workshops have been held on the standards for bamboo certification and sustainable forest management which have helped to disseminate the findings of the project and provide a platform for discussion on biodiversity conservation.

Important Numbers in the Main Outputs in 2008

- In Hunan, Sichuan and Yunnan, 3 project demonstration sites were established, with 80 core experimental plots covering 100 hectares. The demonstrated models of bamboo forest biodiversity conservation in the sites are being replicated in surrounding areas.
- The project organised and held 3 rural community trainings and 1 field investigation training. In the Hunan, Sichuan and Yunnan sites, 240 farmers and over 50 local forestry administration officials received training.
- The project organised and held 3 workshops regarding biodiversity conservation, which promoted research interest of and raised awareness of various stakeholders of biodiversity conservation in bamboo forests.
- We compiled and published 4 quarterly update newsletters.
- We drafted and distributed 3 training manuals
- We supported the research and completion of 3 Masters' theses, and published 2 papers in academic periodicals
- We completed more than 20 survey reports under the project

4. Planned Activities for 2009

Demonstration and training work will continue at all three pilot sites to test and adopt strategies to reintroduce biodiversity and encourage adoption of more environmentally-friendly cultivation practices. The effects of the introduced management practices will be tested against bioindicators- namely **bird, insect and plant populations and diversity above ground, and micro-organisms (especially nematodes) in the soil**. Comparative studies of the populations prior to and following the intervention, taken through biodiversity surveys, will provide measurable indicators on the success of management practices.

Based on the field work, the **guidelines and manuals** on conserving biodiversity and sustainable management of bamboo forest will be developed and tested through training courses.

Policy formulation and dissemination will be one of the most important outputs and impact in the year. A few workshops have been planned to facilitate the policy development work.

Trainings for forestry workers, farmers and policy makers will continue in each of the provinces on technologies and management practices.

In Hunan, work will continue on the **study and demonstration** to help preserve biodiversity and encourage sustainable management practices for mixed natural bamboo forests.

In Sichuan, the project will develop a **conservation management scheme** to shift farmers away from monoculture practices and incorporate techniques which will benefit biodiversity. This will be reinforced through the formulation of policy recommendations targeted at a provincial level.

In Yunnan, work will continue with the goal of **protecting Qiongzhusa** from overharvesting, follow-up trainings will be provided to farmers, and policy recommendations formulated for local government.

A national workshop on **sustainable forestry management** will be organized in September 2009 and will provide a forum for formulating national initiatives for improving forest biodiversity, using bamboo as a case study.

Policy formulation and dissemination will be conducted through different means. A few workshops have been planned to facilitate the policy development work in July and November.

5. Who are we working with?



Dr. XU Jiliang, Policy Expert, Assistant Professor in College of Nature Conservation, Beijing Forestry University, has undertaken research on wildlife conservation and the nation's policies related to biodiversity conservation in the forestry sector for over 10 years.

Dr. XU is responsible for the investigation of the status of the biodiversity conservation policies applied to natural bamboo forests. As part of this, he is investigating and assessing the problems and issues related to existing policies and recommending policy changes and improvements.

Dr. DONG Wenyuan, Qiong Bamboo Expert from the South West Forest College, and professor and associate director at the Bamboo and Rattan Research Institute has a strong background in the study and applications of natural *Qiongzhusa tumidinose*, with a specific emphasis on conservation aspects.

Dr. Dong is working in the Yunnan pilot site, which includes the promotion of the sustainable Qiong bamboo forest silviculture techniques through multiple levels of trainings, and the improvement of biodiversity restoration in Qiong bamboo forests by applying and adopting a series of bamboo forestry management techniques.



Dr. FU Shenglei is an expert in Restoration Ecology and Biogeochemistry, has a Ph.D degree in Ecology from the University of Georgia and has held post-doctorate positions at the University of California. He is currently Principle Scientist of Restoration Ecology in the South China Botanical Garden, Chinese Academy of Sciences.

Dr. Fu is leading his team to monitor and evaluate the soil changes in Hunan site. The specific aims are to investigate the relationship of biodiversity level and eco-function of soil, monitor the impact of biodiversity loss on microorganism changes in the soil and evaluate the effectiveness of conservation and restoration approaches which are being applied in Pikeng Village.

6. Our collaboration partners in the field

'Lao' Yuan is a typical bamboo farmer living in Pikeng Village, Shidu Town, Yanling County in Hunan province. He is friendly, modest and diligent.

Lao Yuan is an active participant in almost all of the investigations and studies of the ECBP project, and has on occasion acted as a voluntary guide. He has witnessed the progress of the project in Pikeng site from the start to its current state.

Lao Yuan has expressed satisfaction with his interaction the project, stating that he learnt a lot due to working with the experts and attending the community trainings. Through communication with the ECBP experts, Yuan learnt about the range of the bamboo forestry industry, instead of focusing on his family-run bamboo enterprise. Amongst the important information he gained, he cited greater insights into the connection between an individual's income from bamboo and the market and economic environment as being particularly important. Most importantly, he learnt how to improve the management of his bamboo forest so that he can harvest more bamboo in the near future.



1. Lao Yuan and his wife
2. Yuan removes the wrapped branches in the demonstration site, which were broken-up due to the snow-havoc in spring of 2008. The cleaning is important for the experts' sample collection and methods implementation.
3. Yuan helping the soil expert collect the soil sample.
4. As suggested by Lao Yuan, each of the pilot fields were numbered therefore allowing quick checking of specific plot sites by the experts.

Editors: Zhang Yanmei & Giles Henley