FORESTS OF HUOSHAN COUNTY: A PATH TOWARDS POVERTY ALLEVIATION

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Name of forest: Huoshan County Community Forests
Location: Houshan County, Anhui Province
Area (hectares): 3 000
Managing entity: Individual farmers and Huoshan County Forestry Bureau
Mgt. objectives: Multiple use, poverty alleviation
Country: China

Historically, Huoshan County, in China’s eastern province of Anhui, has been one of the country’s poorest areas. In the late 1970s, the annual income per capita averaged less than US$18.50. Starting in 1978, in line with nationwide economic liberalization, the government facilitated significant social and economic development in Huoshan County. These efforts resulted in steadily increasing incomes in the county, reaching US$192 per capita per year by 2000.

Nonetheless, enormous challenges still confront the county. Transportation facilities remain poor and only 21 villages — out of 280 — are accessible by road. Soil erosion is a serious environmental problem, with landslides and related natural disasters occurring frequently. Infrastructure for combating floods is insufficient. Many people do not have adequate access to potable water.

“Even though the standard of living for many farmers has improved, many people still have problems in meeting their basic needs,” deplored Li Qiyi, an afforestation programme officer for the county.
Huoshan County is predominantly rugged, with three-quarters of the county’s 204,570 hectares classified as mountainous. Only 20,620 hectares are considered suitable for permanent agriculture. The county contains 24 townships and 280 villages, with a total population of 366,000 — about 90 percent of whom are farmers.

The educational level of most farmers is very low, thus limiting their ability to understand and implement improvements based on scientific advancements and introduced technologies. Even those farmers who have learned to read still face a major challenge to gain access to technical information, which is rarely available in this remote county.

Fortunately, Huoshan County has abundant natural resources such as bamboo, tea, mulberry and medicinal plants. The county is best suited for forestry development because the mountainous topography is generally unsuitable for agriculture. Therefore, it is perhaps not surprising that 75 percent of farmers’ incomes is currently derived from the forests. The county actively participates in several national forest initiatives, including the Natural Forest Protection Program and various reforestation programmes.

In March 1996, China and the Netherlands signed a Memorandum of Understanding on Development and Cooperation, funding a five-year cooperative project in Huoshan with the aim of alleviating poverty in the county. The Sino-Dutch Poverty Alleviation Project started in December 1997, supporting a broad range of activities including agriculture, forestry, irrigation, enterprise development, hygiene, education, transportation, participatory development and institutional strengthening.

Community forestry — which includes a number of individual programmes such as “Household Forestry,” “Farmers’ Self-help Organizations,” “Demonstration Households” and “Training in Participatory Concepts and Forestry Techniques” — is one of the key sub-projects of the Sino-Dutch Project in Huoshan County. There are three basic principles guiding all project activities: participatory approaches, gender consciousness and environmental protection awareness.

Xu Jiaqi, a community development specialist for the project, explained: “Everyone is involved in project activities. Each person is allowed to share his or her ideas during meetings and discussions. A decision is made by the group before the end of the day. Women are given importance in all activities. In fact, in some groups such as the Bamboo Farmers’ Association, most of the members (70 percent) are women.”

Community forestry activities have been implemented in 68 villages surrounding the townships of Manshuihe, Daoshichong, Shangtushi, Taipingfan, Taiyang, Zhufo’an, Heishidu, Luo’erling and Taoyuanhe. These areas were chosen because they were among the poorest in the county. More than 16,000 households have participated in community forestry, covering an area of 55,119 hectares. As
a result of the project, the forest cover of the county has increased from 59 percent in 1989, to almost 70 percent in 2002.

**Household forestry**

The concept of “Household Forestry” focuses on the establishment of micro-level projects by individual farmers. Household Forestry is a component of the Community Forestry sub-project and incorporates a number of discrete activities such as establishment of economic plantation forests, afforestation on barren hills suitable for tree planting, improvement of low-yielding forests, conservation of forest resources and prevention and control of pests and diseases in economic forests. The farmers themselves decide on the type of forest management activities that are to be implemented. Forestry officials and technicians support communities in their activities by participating in discussions and providing advice. They also assist in the design of activities, participate in joint decision making and monitoring of activities — besides supplying technical help.

Lands surrounding individual households are selected as project sites. Often, the key objective is to enhance soil and water conservation on steep farmland. Some farmland is converted into forest by planting trees and woody species including chestnut (*Castanea* spp.), moso bamboo, tung tree (*Aleurites fordii*, which produces tung oil) and tea oil camellia (*Camellia oleifera*). Most of these species are able to rapidly generate income for farmers.

Some of these “economic species,” including chestnut and moso bamboo, had been tested earlier, but did not grow well and production was low; others were damaged by pests and diseases. Many farmers were becoming increasingly discouraged, until the township forest station and the project intervened through Household Forestry activities to offer assistance in overcoming technical problems.

Many farmers applied to participate in the project, from which the best-qualified were selected as “demonstration households.” Selection was based on gender, educational background and practical capability. The project provided researchers and technicians to train demonstration householders in techniques to solve problems relating to the cultivation of tree crops.

Demonstration households were contracted by the project to assist other farmers in solving problems relating to forestry activities. In turn, the demonstration households received funds to improve their project sites. These undertakings have worked effectively to improve productivity and to increase the incomes of participating farmers.

From 1998 to 2002, a total of 3 810 hectares of forest plantations of economic species, such as chestnut, bamboo, oil camellia and various medicinal plants were

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1 “Economic forest” is a term generally used in China to describe trees planted primarily to generate income from fruits, nuts, oils, medicines and other non-timber products.
established through Household Forestry activities. More than 15,000 households are benefiting from these activities, with current incomes totalling US$0.95 million.

**Sustainable and viable?**

Key questions about project activities relate to their sustainability and long-term viability. An exemplary case is that of Mr Su Huaxun, a very poor farmer from the Lao Jia Wan Group in Daganjian Village. Mr Su’s family has five members, including his 80-year-old mother and a disabled son. He was made aware of the project through the township forest station.

Since 1988, Mr Su has been involved in chestnut grafting. “I have grafted almost a hectare of chestnuts and have interplanted them with tea,” he said, describing his accomplishments to date. “After two years of tending, I was able to harvest 800 kilograms of chestnuts from my plantation, earning me an income of more than US$420. This is a huge amount of money for me.”

This lucrative initial income motivated Su to farm his chestnut plantation more carefully. To learn more about chestnut farming, he attended a training course organized by the Sino-Dutch Project. He likewise developed a closer relationship with the township forestry station. The additional knowledge he accumulated through these activities enabled him to increase the production and quality of his chestnut plantation, thereby increasing his income and lifting his family out of poverty.

Income is not the only factor that motivates farmers. Membership in groups such as Farmers’ Self-help Organizations also provides motivation. There are three types of these organizations: “Farmers’ Professional Associations,” “Community Development Fund Management Organizations” and “Forest Products Processing Associations.” Mr Xu Jiaqi explained: “The primary aim of Farmer’s Self-help Organizations is to improve the economic and social environment for farmers and their families. By empowering farmers to manage their farms according to their own livelihood preferences, it is hoped that their dependence on the government will be reduced. Farmers are free to join or drop out of any organization — as they choose. Each Self-help Organization has its own rules and regulations. The farmers themselves elect the management committee.”

Songlin Village provides an interesting example of the effectiveness of a Self-help Organization. Due to its remote location and difficult access, most farmers in Songlin Village of Tainyang Township were very poor. Nonetheless, the village is endowed with abundant mixed coniferous and broadleaf forests, and since 1997 especially, local farmers have cut secondary broadleaf forest to obtain raw material for raising edible fungi.
Unfortunately, the farmers initially lacked technical knowledge on how to use forest resources sustainably. Large trees were felled and cut into small pieces to provide a medium for raising mushrooms and other edible fungi. The farmers in neighbouring villages also followed this pattern of exploitation, quickly depleting the resource and denuding an area of nearly 200 hectares of natural forest surrounding the villages.

To help curb this practice and to bring an element of sustainability to the operations, the project office consulted with the farmers. The consultations resulted in an agreement to establish a Forest Farmers’ Association that worked with farmers to allow their continued use of the broadleaf forest resources, but in a sustainable manner under controlled harvesting regimes. The project awarded a grant of more than US$6,000 in community development funds to support the establishment of Forest Farmers’ Associations in village communities.

Mr Li Qiyi, of the county’s Forestry Bureau, explained: “Aside from the project grant, farmers also paid US$200 as shares to join the association. The money from the grant and the farmers’ contributions was put together as a community development fund. This fund is managed by the association according to established rules. The members of the association can each borrow US$25-200, which is used for mushroom production. Less than 50 percent of members are allowed to borrow money at any given time. The borrowed money must be repaid with interest, within six months. The association members who have not borrowed money, supervise the use of the money. The money raised from interest payments is used to send drop-out children back to school.”

Local farmers assisted the Forest Farmers’ Association to identify 160 hectares of mountainous forest land for natural regeneration. The Farmers’ Association implemented new mountain closure techniques, which identified tree species and vegetation to be conserved, but allowed other species to be harvested and used as raw material for fungi cultivation.

This practice protects the overall forest health while enabling farmers to continue improving their economic status. In the first year of the project alone, 100 participating households harvested 140,000 bags of edible or medicinal fungi, netting revenues of more than US$25,000. The money earned was divided equally among participating households.

**Demonstration households**

Some households have been selected as technology demonstration households in the implementation of community forestry. The demonstration households were identified as being exceptionally skilled and proficient in farming and forestry. Most of the participating farmers are high school graduates.
The heads of the selected demonstration households signed agreements with the project, under which the farmers received training and technical assistance from the project, while in return the farmers agreed to help other farmers to implement new techniques. The project regularly evaluates the performance of each demonstration household. Only farmers who meet all the requirements of the agreement are retained as demonstration householders. Most of the demonstration households have good credit standing, which enables them to successfully apply for loans from rural credit cooperatives.

An interesting example of the use of demonstration households is Liang Ganchong Village of Shang Tushi Town. In Liang Ganchong, 10 chestnut demonstration households were trained by project staff to manage chestnut orchards effectively. The knowledge acquired through training was applied to local farms. The benefits of applying the new methods are readily apparent, with at least 2 households harvesting more than 1500 kilograms of chestnuts in a single year, yielding approximately US$850 for each household.

While developing their own chestnut orchards, the 10 demonstration households also assisted 70 other chestnut growers in improving their management techniques. Mr He Yu, a 35-year-old farmer, who owns a small chestnut plantation in Chang Chong Village of Taiping Township explained how the system works: “I heard about the project from the township forest station. I sent my application to participate as a demonstration householder, including letters of recommendation from neighbouring farmers. After a thorough review, the project approved my application and I was selected as a demonstration householder. When I joined the project, I underwent training and learned new techniques for chestnut tending and management. Our chestnut production increased to 3000 kilograms in 2002 and I was able earn US$1 700 from sales. I have used my training to help 19 other households to improve their chestnut plantations.”

The training provided by the project has been cited as one of the key reasons why most programmes in Huoshan County have been successful. There are three levels of training: training for trainers, training for technology demonstration households and training for farmers. The project has implemented an extensive series of training courses, resulting in large numbers of technically proficient farmers with the skills and motivation to effectively transfer techniques and technologies to their neighbours.

A total of 405 forestry technicians have been selected to attend Training for Trainers courses. The contents of the training courses include participatory approaches and intensification of applied techniques (such as grafting procedures, silvicultural management, pest and disease control for chestnut-growing, bamboo and Chinese fir cultivation, and uses of common pesticides). After training, the course graduates became instructors for other groups that have expressed interest in improving their forest management.
Outcomes

The results of social forestry activities in Huoshan County are becoming increasingly evident. Farmers in the project area have increased their incomes significantly by participating in household forestry activities, Farmers’ Self-help Organizations, technical training and other project programmes.

The project has also provided various other tangible benefits. Farmers are now adopting management techniques that encourage soil and water conservation. During land preparation, small holes are dug along contour lines for planting trees rather than cultivating entire slopes. In addition, stone dams shaped in a half-circle are built around planting holes on the downslope to prevent soil erosion and loss of fertility. The burning of grass and shrubs, and full cultivation of the soil — previously used in forest planting — are strictly forbidden. These measures have greatly enhanced farmers’ awareness of environmental protection.

During the implementation of the project, activities focusing on protection and integrated utilization of secondary natural forests were carried out. Closing mountains for natural regeneration was also implemented. These trial activities have changed traditional forestry practices in which utilization generally led to deforestation and required subsequent re-afforestation efforts. The changes are in line with current natural forest protection strategies enacted by the Chinese Government. The project has consequently played a significant role in improving the environment, conserving biological diversity, enhancing people’s standards of living and realizing sustainable development.

Another project benefit has been a reduction in the unemployment rate, thereby maintaining and enhancing social stability. On the one hand, the processing industry has created additional employment opportunities for landless labourers and women in rural areas. On the other hand, various types of hillside development activities have attracted farmers, who have abandoned uneconomic plots of land, to earn their livelihoods by participating in various forestry activities.

Awareness of gender issues has also been built up in local communities. Women in rural areas have generally taken the lead in carrying out forestry-related activities. As the project has evolved, women have been increasingly willing to participate in activities, as well as relinquishing traditional reticence towards taking part in decision making. The project has consequently enabled women to improve their social status.

Conclusions

The Sino–Dutch Poverty Alleviation Project has acted as a catalyst for significant changes in forestry practices in Huoshan County. The project effectively developed partnerships between county officials and local farmers, and implemented a variety of participatory mechanisms for technology transfer.
The project’s participatory approaches have won popular support among farming households. Most project activities have encouraged participation from beginning to end, while also ensuring that farmers have maintained control of all facets of their operations. This approach encourages farmers to pursue project objectives as a means of improving their own livelihoods.

The participatory approach has utilized two primary means of extending training: the first is from the project office through township governments and forestry stations to farming households; the second involves township governments utilizing Farmers’ Self-help Organizations to assist farming households. Township leaders have played key roles as project coordinators and as conduits for extending new technologies to local farmers.

The core focus on capacity building has meant that nearly all participating households have learned at least one or two applied techniques; this has established a foundation for further development and increased self-reliance and capacities to alleviate their own poverty. At a larger scale, the county’s forestry sector has accumulated experience and capacity to implement similar projects in the future. Township governments have improved coordination skills. Forestry staff have changed their approaches from a bureaucratic role — overseeing and directing — to a partnership approach that enables the establishment of equitable relationships with farmers and encourages the mutual exchange of knowledge and information.

An old saying asserts: “Give a man fish and he is fed for one day, but teach him to fish and he is fed for a lifetime.” This reflects a key philosophy in Huoshan County, and provides enormous optimism that progress will continue well beyond the life of the project. By “helping people to help themselves,” the project has ensured the long-term adoption of sustainable forestry practices.

About the author

Jiang Chunqian is a researcher at the International Farm Forestry Training Centre of the Chinese Academy of Forestry. He is also the Deputy National Counterpart for the Regional Model Forest Project in Asia and the Pacific and Chief Secretary of the China Model Forest Network. He has worked with numerous national and international programmes and projects. He holds a Ph.D. in silviculture from the Chinese Academy of Forestry and is a specialist in participatory forestry, agroforestry, rural development and poverty alleviation, non-timber forest products and training and programme management.