



Forest Conservation for Environment and Health, The Khata Corridor project

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Short title: Community forestry for public health, Nepal

Key Message: Community forest management is a successful avenue to provide health and family planning services as well as relieving environmental pressure in the Khata area of the Terai region in Nepal.

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Picture 1: NFE participants
 Courtesy: Leona D'Agnes



Picture 2: Female NFE participants
 Courtesy: Leona D'Agnes

What is the problem?

The Terai is a fertile low-lying plain in Nepal. It has an outstanding assemblage of endangered wildlife such as Asian elephant, one-horned rhino, Bengal tiger, river dolphin and endemic birds. This forested landscape has seen much deforestation in recent decades, following the eradication of malaria in the 1940s and is now Nepal's most populated region and the nation's rice basket. The Terai is rich in ethnic diversity: the landscape has a multi-cultural and multi ethnic population of 6.7 million people. Despite the potential of the area's natural resources to contribute to people's livelihoods, challenges of dense population and poor health make it exceedingly difficult to manage them wisely. The people of the Terai are poor and rely on agriculture for their livelihoods. The majority of the population is reliant on firewood for cooking, and most still use inefficient traditional stoves. People in the Terai experience many common diseases such as dysentery, eye infections, respiratory infections, tuberculosis and HIV.

The main drivers of biodiversity loss in the Terai include the over-harvesting of forests for fuel wood (increasing population and the lack of affordable alternative energy technologies

emphasizes the dependency on wood for fuel, which also produces indoor air pollution and respiratory problems); overgrazing of livestock; and forest encroachment and settlement (as the population grows more forest is cleared for cultivation). Conservation efforts now focus on reconnecting isolated areas of forest through corridors which are managed by local community forest user groups for their benefit.

Which ecosystem services (ES) are considered and how?

Ecosystem services include water supplies, natural resource provision, food production, and soil conservation. By considering the value of the forest for health as well as for forest projects, a win-win situation was guaranteed for both conservation and development.

What policy instrument builds upon this ecosystem service information?

Nepal has a very progressive policy on biodiversity conservation and sustainable development, as exemplified by community forestry. Community forests are national forests handed over to local user groups for protection, management and utilization as laid out in the Forest Act, 1993. The forests are managed according to Operational Plans prepared by Community Forest User Groups (CFUGs), and approved by the District Forest Office. Under the plans the CFUGs can act as self-governing entities to generate, utilize and sell forest products. In the Khata area, a pilot project was built on existing work with community forest user groups, by using an approach that integrated biodiversity conservation, poverty alleviation, family planning and health.

In Khata, a revolving fund provides loans to install biogas units and build improved cooking stoves, which in turn curbs deforestation and reduces exposure to indoor air pollution. In the community forest project, the cattle are removed from the forest and a few cows are kept in stalls near the homestead and fed cut fodder. The dung is then collected and fed into the bio digester, which the family latrine also drains into. The resulting biogas provides clean cooking fuel, which reduces household smoke and thus reduces the effects of acute respiratory infection, especially among women and children. It also saves women time and work as they no longer have to collect firewood, thus decreasing forest degradation. Latrines reduce the spread of diseases and parasites. Feeding cattle in stalls prevents them from trampling and browsing in the forest, enabling the forest to regenerate. The cattle also provide milk that improves child nutrition and boosts household income through the sale of surplus milk.

What input was required for doing so?

In order to combine conservation and health, WWF-Nepal and its local implementing partner, the Community Forestry Coordination Committee, an umbrella organization of several community forest user groups, began to integrate health services into ongoing conservation work in Khata in 2003, with support from Johnson & Johnson. Initially, the project worked with the Nepal Red Cross Society, which trained volunteers in first aid and helped establish a community-run health clinic. The project raised awareness about HIV/AIDS and family planning, and improved the quality of sanitation and drinking water. In addition, the health interventions contributed directly to the conservation of forests. Households in this area are so poor that a death or major illness can force families to sell their land. Landless people are more dependent on forest resources and may illegally settle on forested land.

In 2006, USAID (United States Agency for International Development) selected the Khata project to test whether forest user groups could implement family planning services and education in tandem with conservation, health, and sustainable livelihood activities. USAID observed that user groups were promising platforms for the introduction of integrated PHE (Population Health Environment) activities because they offered access to established networks, training programs, and their own sources of funding. The PHE approach has

helped transform people's attitudes toward family planning and improve their understanding of its contribution to sustainable livelihoods. Interviews suggest that community members realize that limiting family size can contribute to their continued prosperity.

A critical input has been through micro level focused interventions by NGOs, donors and some public agencies who have been an important feature of Nepal's development process in recent decades.

Consequences and challenges

After two years, a total of 586 households (19 %) in Khata were using biogas or improved cooking stoves, saving an estimated 1,524 metric tons of firewood annually (equivalent to about 3,800 trees). 73% of married couples were practicing family planning compared to 43% previously (measured through indirect methods of reporting). Working with community organizations like forest user groups can add value to family planning and health programs. Through this partnership, the project was able to promote family planning in disadvantaged, difficult-to-reach communities as part of a package of interventions to improve their livelihoods.

From the outset, the USAID project required that NGO partners and forest user groups contribute funds to maximize the project's long-term sustainability; these contributions totalled more than \$37,500 over two years (compared to USAID's contribution of \$80,000). After another three years of support, WWF plans to phase out its financial support of the Khata PHE work, thus sustaining the project's conservation and health gains will be a challenge. But to continue the work a large educational project was launched. WWF and the Khata Community Forestry Coordination Committee worked with 24 user groups to integrate family planning and clean energy interventions into their five-year community forest plan amendments, in order to ensure that PHE activities will continue. WWF-Nepal has also worked with Department of Forestry personnel and educated them about the benefits of integrated approaches to family planning, health and community forest management. Also, the Ministry of Health reopened the local sub-health post three miles away once the insurgency stopped, so the government is now playing a larger role in providing health care to these communities.

Implementation of integrated projects like PHE requires adequate technical and managerial capacity. The community forest coordination committee's capacity is still quite limited, therefore there are challenges ahead for the efficient management of community health project activities by the local community themselves. However, the work in Khata has been successful in its aim to change people's attitude towards livelihood sustainability.

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Picture 3: Residents in the fields
Courtesy: *Leona D'Agnes*



Picture 4: Replacing traditional cooking stoves with improved stoves.
Courtesy: *Leona D'Agnes*



Picture 5: Water tanks
Courtesy: *Leona D'Agnes*