

GEF-SGP Grant Helped to Enhance Sustainability in Rural Forestry Communities

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Beijing, China, March 2014—BEIJING - Like many women in Sancha, a village in the mountainous Huairou district where temperatures can reach as low as -12 C, 56-year-old Liu Xiuying experienced an easier winter last year thanks to the project **Capacity Development for Forestry Communities to Address Climate Change in the Miyun Reservoir Watershed** which helped improve the energy efficiency of her rural suburban home.

In August 2013, UNDP (United Nations Development Programme) administrator Helen Clark visited the project site during her week-long visit to China. She was briefed on forest management, improvement of high-efficient hypocausts, capacity building and other innovative techniques initiated in the project site, and gave the project high praise for its contribution to ecological conservation and livelihood improvement in rural areas in Beijing.



The project was funded by the GEF Small Grant Programme and implemented by Beijing Forestry Society (BFS) from 2010 to 2011. The project site is located in the northeast of Beijing Municipality, which is a region with fragile ecological environment, severe water shortages and sensitive climate. The project site -the Miyun Reservoir watershed is the most important water source protection zone, while the region is also the survival home of forestry community residents, which accounts for 1/3 of the total population of Beijing.

Meanwhile, due to the low economic and cultural development levels of forestry community, the weak awareness of responding to climate change, absence of management knowledge and skills, as well as low energy efficiency of traditional life, the forest resources are damaged and wasted to varying degrees, and this directly affected the forest carbon sequestration capacity.

In the project site, "Cooking with firewood and heating through hypocaust" is the traditional way of life. However, its energy efficiency is very low and also quite energy-consuming. To a certain extent, it affects the improvement of rural ecological environment and the mitigation of climate change process.

For example, Liu used to cut down trees every day to keep warm during the colder months, but after receiving 1,000 yuan (\$160) from the project, her family has installed an energy-saving heating system that has reduced their annual demand for firewood from 1,250 kilograms to just 250 kg.

"Now gathering branches in the neighboring groves is sufficient for our needs," Liu said. "We no longer cut down trees."

Homes in this part of Beijing are traditionally fitted with kang, hollow brick beds heated by wood fires. Using the grants, residents were able to install updated models fitted with pipes that spread the hot air around the home. The project will save about 5 hectares of forest in Sancha every year.



Beyond the reconstructing of firewood-saving and



high energy-efficient hypocausts for target households, the project activities also include technical trainings on carbon sequestration-oriented forest management and close-to-nature management as well as sustainable firewood collection among community residents, forest management, workshop on climate change and project experience exchange for local stakeholders, and

enhancement of environmental awareness and outreach.

Years after implementation of the project, unsustainable deforestation in the area has now been controlled, and the forest-based carbon sequestration has been enhanced effectively. About 40% community residents have been technically trained on carbon sequestration forest management and close-to-nature management, and their carbon sequestration forest management capacities are improved. Energy-saving hypocausts were constructed for about 76 households, which will annually save firewood 75-120 tons, reduce CO₂ emission 100-170 tons, save 30% energy; living environment in the village has been improved significantly. About 40% residents have basically management skills of sustainable firewood collection, and the local residents are more climate-change sensitive. In addition, the annual per capita average income in the village has increased to 14,000 RMB from 8,700 RMB as before the project implementation. Official data also show that the improved environment is already attracting more tourists, increasing the potentiality for eco-tourism for the village.

Besides the main activities, such as energy-saving bed renovation, close-to-nature forest management, training on sustainable firewood collection and eco-tourism development, more actions could be taken to strengthen the capacity in forestry community to response to climate change, including: solar energy and biomass application, recycling, household heater renovation, thermal insulation improvement for windows and doors, etc. The above mentioned initiatives could probably be scaled up to a medium-sized GEF grant.