What happens to the natural environment when a rural community joins the global economy?

By Jefferson Fox

With globalization, young people are drawn away from rural communities in search of better economic opportunities. One immediate result is a shortage of labor in the agricultural sector. On the other hand, remittances from migrant family members can be used to hire labor and purchase agricultural inputs such as seeds, fertilizers, livestock, and labor-saving equipment. Migration may thus encourage agricultural intensification, or at least help to maintain output levels with less family labor.

Despite these promising possibilities, scholars have generally found that migration undermines agricultural systems and deprives households of necessary labor, while remittances are seldom invested in improvements to the farming sector.

Apart from changes in the farming sector, some scholars have speculated that a more globalized rural population might result in better preservation of the natural environment. Natural resources such as tree products might command higher prices, leading to better management, or a smaller rural population might reduce the pressure on natural resources. A case study based on 30 years of observation in one Nepali village suggests that the real situation may be more complicated.

Nepal offers a good opportunity to look at the interaction between rural communities and natural resources in the face of an increasingly globalized economy. Forests account for about 40 percent of Nepal’s total land area, and the government’s acclaimed Community Forestry Program has transferred management of nearly one-fourth of the country’s forests to local communities. At the same time, one-third of Nepal’s working male population—four million migrants—are currently working overseas, and the money they send home constitutes one-quarter of all household income in the country.

One village and its forests

In 2010, the village of Bhogteni, in Nepal’s Middle Hills region, was home to 844 people. More than one-third of local households reported that at least one family member had migrated, either within Nepal or overseas—mostly to the Gulf, India, or Malaysia. On average, each migrant sent the equivalent of US$52 back to the village every month, about 17 percent of Nepal’s average monthly wage.

Many of those left behind had moved from subsistence farming into commercial enterprises such as small-scale chicken production or orange plantations. Others were working off the farm entirely, and some less-productive agricultural fields had been abandoned or converted to tree crops for firewood and fodder.

The villagers used the small patches of natural forest around Bhogteni primarily for subsistence purposes—gathering firewood and fodder, grazing livestock, and logging small amounts of lumber for house construction. Historically, they treated the forests as an open-access resource with no attempts at management, and the forests tended to be badly degraded.

When young people leave the village, the result is a labor shortage that affects both farming and the natural environment.
Back in 1976, the Nepali government had introduced a National Forestry Plan that emphasized community participation in forest management. By 1990, the villagers had established several informal Community Forest User Groups. These groups banned free grazing of livestock in the forests and limited the collection of firewood and timber to a few days per year. In principle, these changes should have resulted in significant improvements of the natural environment.

By 2010, community forestry had been an active program for more than 20 years, but the success of community-forestry efforts in Bhogteni varied greatly. Interviews with farmers suggested that people had abandoned management of most of the small community forests because the benefits of improved management did not justify the effort required.

By contrast, one forest managed by a community group showed a large increase in the number of trees and in their mean size. This was probably because one individual farmer who lived nearby felt “responsibility” for the forest and made sure it was well managed. Another—much larger—forest also saw a significant improvement. Apparently, this larger forest was valuable enough that villagers were willing to invest the labor needed to protect it.

**A breakdown in government programs**

Between 1980 and 1988, the Nepali government initiated a project to improve soil management and enhance forests in the watershed around Bhogteni. The project established nurseries that grew tree seedlings and paid farmers to plant trees on degraded forest lands. The District Forest Department mapped proposed community forests, approved management plans, and formally recognized Community Forest User Groups.

Then in February 1996, the United Communist Party of Nepal (the “Maoists”) mounted an armed insurrection. By 2001, the fighting had ceased, but in Bhogteni the insurrection had interfered with government programs, affected forest management, and may have led some people to migrate out of the village.

In the post-Maoist period, there were no elected local governments, and the centrally appointed officials responsible for local development were over-burdened and lacked facilities and staff. Elections were not held again until 2017.

**Benign neglect is not enough**

In an age of globalization, Bhogteni could be described as a “backwater.” Many young adults moved away, the farmers who were left behind tended to be old, and many of them were engaged in other commercial activities and only farmed part time. As a result, labor was scarce for farming, let alone forest management.

The retreat from farming has had a mixed impact on the village’s forests. About one-half of Bhogteni’s forested area was in as bad a condition in 2010 as it was in 1980, or even worse. In the absence of government programs to provide seedlings and other incentives and assistance, it appears that the economic transition that has taken place in Bhogteni was not enough to improve the status of all of the community’s natural resources. Yet two of the village’s forests saw a significant increase in both the number of trees and their mean size, resulting in a large increase in total wood volume. These forests are in better condition today than they were in 1980.

Of course this is just one village, but it is troubling to find that increased participation in the global economy has not led to solid improvements in the natural environment, either through the managed production of high-value products or at least an easing off of unmanaged exploitation. Although trends are not well documented, the experience of this one small village appears to reflect changes taking place elsewhere in Nepal and in other rural areas of Asia.