## Good fences make good neighbors

The banks of the Manshahi River collapse gradually under the force of the sandy, murky water that surges downstream. As the rain falls, it becomes clear to Rita Khadka and her neighbors that the river banks won't hold the water back much longer.

Rita, a young mother, looks out over the fields of rice, paddy and maize that she tends to with her husband as the rain pelts from the sky. Not only will her home flood, but the sediment the water carries with it will likely destroy her crops as well.

Sandy, nutrient-less sediment from the Chure Mountains set loose as the hillside is deforested, washes into Rita and her neighbor's fields as the riverbank facing their farmland erodes. Unpredictable and more intense rainfall, likely the cause of climate change, causes the Kanyashori village in Banke, Nepal to spiral deeper and deeper into despair.

If the river keeps washing sediment from the mountains into Rita's fields, the soil she grows her crops in will deplete and crop yields will fall. Rita worries about the money she will have to spend to feed her family if she cannot self-subsist on what her and her husband grow.

When the rains cease, members from the local Community Forest User Group (CFUG) participate in a training with the Federation of Community Forest Users Nepal (FECOFUN) - a partner organization who local resource people (LRPs) have been trained on climate change adaptation and the importance of forest management by RECOFTC. The CFUG represents 237 households, including Rita's, that live in or near the 147 hectares of forest land they manage.

"Climate change is likely to change precipitation patterns and we need to

prepare through forest conservation and develop adaptation measures," the FECOFUN trainer tells the Kanyashori CFUG members as he explains to them how greenhouse gases trapped in the earth's atmosphere cause temperatures to rise.

Immediately, the floods come to mind and the reality of the situation hits Jeet and Bal Krishna, the co-chair and chair of the CFUG. They realize that these floods are not going to stop any time soon. They must, for the sake of Rita and everyone else in the community, do something to mitigate its effects.

"What if we build a 'fence' using bushes and shrubs to prevent the water from flowing into the village and fields?" Jeet, the co-chair of the CFUG suggests at the next CFUG meeting. After a short discussion, the other members agree and began building what they call the 'living fence.'

Normally, the young men in Kanyashori would do most of the physical labor required to build the 'living fence,' but economic constraints have forced many of the young people to move abroad to the Middle East to work as laborers. So, Rita and many of her female neighbors work to bioengineer the fence.

Clouds of dust rise from the cracked earth as Rita and her neighbors work in the heat of the dry season. Using shovels, wheel barrels and hoes they build a meter high wall of dirt between the river and the village.

In 2011 and 2012, the first two years after the 'living fence' is completed, not much changes. Sediment in the water is carried into the fields, again harming their crops, and Rita begins to worry.



"I want my children to stay in the village and work for the community, and the forest needs to be healthy for that to happen." As she walks through the forest with her friend Sita, collecting leaves and grass to bring back to her livestock, Rita laments "Why can't we let our cattle graze here? The CFUG is so restrictive!"

Sita agrees, for they are both skeptical about what the CFUG can do for them.

After a training in 2013 with FECOFUN, it becomes clear to the CFUG that more plants are needed to stabilize the bank and filter out the sediment in the water. Using local knowledge, the CFUG identifies plants seen on other river banks and comes to the conclusion that they should plant besharam - a hardy shrub plant with a stiff stalk - along the bank and in the riverbed before the rainy season comes.

In 2013, with help from Hariyo Ban USAID, the CFUG transports the plants from a nearby forest and plants them on the dirt wall and in diagonal rows along the sandy riverbed.

Then, they waited for the rains to come.

Rita, still not officially a member of the CFUG yet, is curious to see if these projects will protect her crops from the flooding. Her daughter, now four years old, is growing fast and Rita would soon need to pay school fees - something she fears she won't be able to do if she needs to buy food from the market.

When the rains of 2013 come, the effects are apparent. The violent rush of water slows as it passes through the village and although there is some flooding, major damage is avoided. Rita's crop yield springs back up and she is able to sustain her family with what she grows.

What's more, the plants in the river bed can be used to build houses and the leaves can be used for organic fertilizers in the field, providing the villagers with more than just one benefit.

Impressed with the impact that the CFUG project has on the community, Rita decides to officially join the CFUG. She is expecting her second child and sees the importance to maintaining a healthy forest and ecosystem for her children.

At the first CFUG meeting, Rita is shy and sits at the back of the room. "What do I know about community forestry?" she asks herself, justifying her lack of participation. But as Rita attends more meetings, she becomes more comfortable. She jumps when the opportunity arises to attend a FECOFUN training on developing leadership capacities.

But, at first, her husband is reluctant to let her go. "Who will take care of the children and cook the food while you are away?" he presses. "My mother can take care of the children, and you can cook dinner for yourself," Rita responds with a sense of determination. Shortly after the first training, the general elections take place for the CFUG. Thirtythree per cent of the leadership positions must be held by women, and Rita's name immediately comes up for the position of secretary because of her reading and writing abilities. Surprised, but willing, Rita accepts the position. Rita attends two more FECOFUN trainings, one on climate change adaptation and other on social inclusion and gender equality - further solidifying her role in the CFUG.

Rita sits in a circle with seven men and one other woman discussing the 'living fence' and the potential challenge this year's rainfall will bring and the reforestation efforts on the riverbed. She hands around the attendance book, asking everyone to sign - part of her duty as secretary.

As she looks out over a field of rice the same color as the traditional scarf draped over her shoulders, she says, "I want my children to stay in the village and work for the community, and the forest needs to be healthy for that to happen."

