Growing hope with trees: farmers' learning groups in Buol, Indonesia

Farmers in the district of Buol in Central Sulawesi Province have formed learning groups to better understand tree management to improve their livelihoods in the face of climate change.

'We don't know how to care for our land; all we do is wait until the harvest time comes so we can pick the fruits and sell them but lately there's not much to sell', said one of the farmers working with researchers from the World Agroforestry Centre (ICRAF) in Buol, Central Sulawesi Province, Indonesia. His comments neatly summed up the challenges facing farmers, and researchers, in the increasingly dry district.

In 2014, the **Climate Smart, Tree-Based, Co-Investment in Adaptation and Mitigation in Asia** (Smart Tree-Invest) project, which is funded by the International Fund for Agricultural Development and the CGIAR Research Program on Forests, Trees and Agroforestry under the aegis of ICRAF, started work in Buol to try and address the issues faced by farmers.

Initial discussion to understand the problems that faced by farmers.
Photo: World Agroforestry Centre/Radiagita Dwi Prasatya

The first step for the research team was to hold focus-group discussion with women and men in eight villages to understand the problems. Several inter-linked problems were identified. First, the economic situation of the farmers was hard owing to low incomes because of the poor productivity of their land. Discussion revealed that this poor productivity was mainly caused by a lack of knowledge about farm management; most of them had minimal information about, and experience of, practices like pruning, creating compost and applying organic fertilizers, tree grafting, and the importance of spacing and shading in tree planting. It was clear from this news that improving management of trees was a 'low-hanging fruit' for the researchers.

The farmers in Buol, a remote district in Central Sulawesi, were mostly participants in Government 'transmigration' schemes from Java and Bali. They moved to Buol many years ago to start a new life with high hopes of being successful farmers. In the 1990s, they started to plant trees, such as clove, cacao, nutmeg and coffee. Like all the other parts of Sulawesi, which is known for its soil fertility, the farmers believed that planting these trees would help their families' economic growth. These predictions came true when Buol became a huge producer of cacao and clove but after several years the trees produced less and less yields. Some of the land was converted to growing annual crops, some was abandoned but kept in the hope that maybe someday thee trees would produce as much as they used to. The first discussions revealed this background and set the research agenda.

Farmers in one of the discussions in Buol.
Photo: World Agroforestry Centre/Dienda CP Hendrawan

Another set of discussions then followed, on farmers' preferences for types of trees. The discussions were held in two of the watershed's upstream villages (Kokobuka and Lomuli), three in the midstream (Balau, Air Terang, and Boilan village) and three on the coast (Taat, Matinan, and Lokodidi village) to find out what the farmers wanted to plant. In each village, everyone over 17 years-old, male and female, were invited to the half-day discussions.

One of our farmer specialist facilitate the discussion of tree preferences in female group.
Photo: World Agroforestry Centre/Dienda CP Hendrawan

To make the discussions more lively, 'button games' were used. The villagers were separated into three-to-five groups of 15-to-30 people each. In each group, first, cards of different species from the 'important' list compiled in the earlier discussions, were put on a table. One hundred buttons were evenly distributed to everyone. Each person then chose the species they preferred by putting one button or more on the species' card, with one button representing one vote. At the end, the number of buttons on each card was counted to determine the top five prioritized species. These five species will become the first batch of trees that farmers' groups will work with for the next 12 months.

'Button games' to decide tree species preferences.
Photo: World Agroforestry Centre/Dienda CP Hendrawan

Nutmeg, durian, black pepper, cacao, clove, coffee and mangosteen were all among the chosen species. In each village, a farmers' group, or 'learning group' as the villagers called it (the Indonesian term is Kelompok Belajar Berkebun: Learning Group for Farming Trees), with 30 members varying in age and gender is being formed. The members and leaders of each group were chosen in different ways in each village. Some villages discussed and selected the members and leaders together; others used election methods; and in others they were appointed by the head of the village. The schedule of activities was also determined: seven village learning groups proposed two meetings per month; and one group proposed one meeting each month.

Meeting between Smart-Tree Invest Team and Badan Penyuluh, Buol.
Photo: World Agroforestry Centre/Dienda CP Hendrawan

Finally, in October 2015, eight Smart Tree-Invest Farmers' Learning Groups were officially formed. In January, the learning began, focusing on how to manage trees in a better way with three goals: 1) improve the welfare of Buol farmers; 2) tree farmers to be the agents of co-investment in adaptation and mitigation; and 3) improve and maintain the sustainability of ecosystem services in Buol.

Before the activities began, in early December a meeting between the Smart Tree-Invest team and Badan Penyuluh (the district extension office) was held to engage the local government for collaboration. The extension office staff warmly welcomed the Smart Tree-Invest team and were keen to move forward together, mainly in guiding farmers in the field. It was agreed that Smart-Tree Invest would share the schedule with the staff and invite them to every activity to share knowledge and learn together.