

Establishment of Corn-based Agroforestry System in Selected Upland Farming Communities in the Province of Isabela, Philippines

Appropriate agroforestry models were designed and currently being established as one of the key components of the Asia Pacific Network for Global Change (APN) funded project entitled “Resilience-building Among Smallholder Farmers of Selected Upland Farming Communities in the Province of Isabela, Philippines”. This project is being implemented by the University of the Philippines Los Baños - Institute of Agroforestry (UPLB-IAF) and the Isabela State University (ISU), Cabagan Campus in collaboration with the Provincial, Municipal and Barangay Local Government Units (LGUs) and Department of Environment and Natural Resources - Provincial Environment and Natural Resources Office, Isabela (DENR-PENRO), and City Environment and Natural Resources Office, Cabagan (CENRO).

Corn producing upland farming communities in Tumauni, Cabagan and San Pablo generally practice a corn monocropping system. Hence, the sloping upland farms in these communities are prone to soil erosion. Around 17.6 M hectares or 59% of the total land area of the Philippines (30 M hectares) are upland areas with slope greater than 18%. According to the Bureau of Soils and Water Management (BSWM), land degradation in the Philippines is largely caused by the susceptibility of its soils to erosion due to the hilly and mountainous landforms in many parts of the country. Adoption of agroforestry systems and practices in upland farming communities can contribute to rehabilitation and stabilization of these landscapes.

Agroforestry models are currently being developed in Brgy. Dy-Abra, Tumauni, Brgy.

Masipi East, Cabagan and Brgy. Limbauan, San Pablo in Isabela. Slopes in these model sites are classified as undulating to rolling (8%-18%) to rolling to moderately steep (18%-30%). Soil textural class on the other hand are sandy clay loam in Brgys. Dy-Abra and Masipi East while sandy clay in Brgy. Limbauan. These models that are currently being established will serve as show window of agroforestry systems and practices in the community. Hybrid coconuts (*Cocos nucifera*) from the Philippine Coconut Authority (PCA) and Philippine lime (*Citrus microcarpa*) were integrated in corn production areas. Moreover, hedgerows of Madre de cacao (*Gliricidia sepium*) shall be planted to control soil erosion in these sloping farms.



Figure 1. Agroforestry model farm in Brgy. Dy-Abra, Tumauni, Isabela



Figure 2. Agroforestry model farm in Brgy. Masipi East, Cabagan, Isabela