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Restoration Initiatives in the Lowland Tropics of Central America

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BARCA was founded in 1995 as an innovative tropical reforestation and restoration company working in the Central American tropics. From its beginnings, BARCA has experimented and implemented restoration projects through the designing, planting and managing of mixed native valuable forest species planted in mosaic patterns and mixed planting designs. For example “the BIRDS project” was established in the years of 1995 to 2000 in the Central Pacific Region of Costa Rica.

With an NGO in the Osa Peninsula of Costa Rica, BARCA has also participated in restoration through “enrichment strips” of native precious forest species. In 2011, in the Darien Region of Panama, BARCA is establishing a restoration project in the Comarca Kuna de Madugandí, an autonomous indigenous area. In this Comarca, the restoration must satisfy several necessities for its habitants (fire wood, sawn wood etc.), and a “polycyclic harvesting” of planted and regenerated forest species approach was designed.

For restoration to be economically and socially viable, it must fulfill best silvicultural practices and human relations. Following key aspects to consider:

- Best available genetic stock for reproduction.
- Good site and micro-site/species correlations.
- Excellent management (silvicultural and of human resources).
- Knowledge of forest species to be utilized, especially understanding their tolerance to shade or direct solar radiation.
- Incorporation of non-timber products species.
- Work at grass-roots level, with understanding of laws and traditions of the region.
- Search for “buffer areas”, areas with low intensity land use, communal areas; and work through “environmental service payments” concepts.

The use of natural regeneration is a key factor, and the following aspects are vital:

- Distance or “closeness” to native forests or forest patches that directly influence seed source availability.
- Past history of restoration site and present soil fertility.