



## Vuelta Larga Foundation in Northeast Venezuela: Development of environmentally friendly rural technologies and nature conservation strategies

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### The Vuelta Larga Foundation

Destruction, degradation and loss of resources are main aspects of the human way of life. As a result, life of all species is in danger.

The Fundación Vuelta Larga is operating since 1969 in NE Venezuela, in the Paría region, State Sucre. The goal of the private foundation is to create public awareness in support of sustainable environment and use of environmentally friendly technologies, based on experiences and demonstrations exemplified on an 800-ha area adjacent to the Parque Nacional Turuépano.

80-100 years ago, the vegetation was a swamp forest which because of forest clearing and burning degraded into a savanna floodplain. The main objective of the foundation's work in this savanna is vegetation restoration and the creation of a buffer zone for the Turuépano park including reforestation, reintroduction of endangered plant and animal species, housing with tropical architecture and tropical furniture, traditional indigenous handicraft, and adapted agriculture and aquaculture. The work is funded by income from ecotourism (incl. bird-watching).



Included in the goal is to give knowledge and perspectives to the next generations.



Housing with tropical architecture



Adapted land use with buffaloes



Reintroduction of endangered species

### Reforestation

#### Study

To trigger the development of secondary forests, in the last 30 years trees had been planted along the boundaries and watercourses of the foundation's land. Mainly *Erythrina fusca* Lour. („bucare“), a leguminous pioneer tree well adapted to seasonal flooding, was used. In this study, the secondary forests were mapped and compared with an area without bucare, in order to assess to which extent their regeneration might be bucare-influenced.



*Erythrina fusca* Lour.  
(„bucare“)

#### Materials & Methods

The forest vegetation was mapped using the Point-Centered Quarter (PCQ) method, and composition of the tree vegetation and species dominance were determined.

#### Results & Conclusions

The study area can be subdivided into two zones: Zone 1 is the bordering hill forest and Zone 2 the savanna floodplain. In Zone 1, 42 species and in zone 2, 17 species were found. In Zone 2 high groundwater table, grass vegetation, absence of trees with seed dispersal mechanism, and the soil hydrological conditions are the factors limiting the reforestation process. In some parts, the savanna vegetation seems to be so well established that it shows a relatively stable climax character. But as soon as there is an initial ignition by planting trees, the development of secondary forests is possible. Swamp forests in the adjacent Turuépano park indicate that in the study area also swamp forest used to be predominant.

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