Tropentag, September 19-21, 2012, Göttingen - Kassel/Witzenhausen

"Resilience of agricultural systems against crises"

Tree Seed Procurement in Loja, Ecuador, Including a Concept for a Regional Tree Seed Program

Therese Hertel, Bernd Stimm, Reinhard Mosandl

Technical University of Munich, Institute of Silviculture, Center of Life and Food Sciences Weihenstephan, Germany

Abstract

South America hosts 22 % of the world´s forests with its unique biological diversity. Ecuador is considered being one of the countries with the highest biodiversity, but unsustainable land use and forestry practices threaten this diversity. Up to today Ecuador has the highest deforestation rate in South America. To counteract the forest losses wide-ranged reforestation has to take place but is still at the very beginning. The reforestation efforts up to now do not compensate for the high losses in forest cover. About 140,000 ha of forest plantations exist in the Andes of Ecuador and the commonly used species are *Eucalyptus globulus*, *Pinus radiata* and *Pinus patula*. Just recently Ecuadorian organisations paid particular attention to tree species native to Ecuador and their reforestation potential. The major obstacle to use native species on a larger scale for reforestation is the lack of high quality forest reproductive material. Sound information about appropriate seed procurement, propagation methods and silvicultural treatment options have to be acquired, applied and communicated.

The objectives of our study are to evaluate the current seed procurement and management, and to develop a concept for a regional tree seed programme for the Province of Loja which is practicable and adapted to the local circumstances.

Data on the current practices were gathered through questionnaire survey and structured observations among provincial tree nurseries. National and regional forestry strategies and plans were revised to understand the encountered situation. Based on the model of DANIDAs national tree seed programme framework a regional seed programme was developed, which assesses the main areas of improvement of seed management and highlights facts in need for special consideration.

Our contribution can act as a model for other tropical regions in providing public authorities and politicians with an elaborated concept to improve tree seed management.

Keywords: Native tree species, reforestation, seed supply, tree seed program

Contact Address: Bernd Stimm, Technical University of Munich, Institute of Silviculture, Center of Life and Food Sciences Weihenstephan, Hans-Carl-von-Carlowitz-Platz 2, 85354 Freising, Germany, e-mail: stimm@forst.tu-muenchen.de