



Tropentag, October 5-7, 2011, Bonn

“Development on the margin”

Native Chili Peppers Conservation using Agroforestry Multistrata Systems in Peruvian Amazon

LOURDES GUADALUPE QUIÑONES RUIZ¹, JITKA PERRY², FANNY LUZ CUELLAR BAUTISTA¹,
GOLDIS PERRY DAVILA³, RITA RIVA RUIZ³, DANIELA HIRSCH-SOARES⁴

¹Center of Investigation and Rural Development in Peruvian Amazon, project advisory officer, Peru

²Czech University of Life Sciences Prague, Dept. of Crop Sciences and Agroforestry in Tropics and Sub-tropics, Czech Republic

³National University of Ucayali, Faculty of Agronomy, Peru

⁴Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Peru

Abstract

Amazon rainforest is one of the most diverse ecosystems which form a habitat for more than 50% of described plant species. According to many factors of interruption and destruction of this ecosystem many native species with high pharmaceutical and nutritional importance are lost every year. Among this species are also Amazonian chili peppers. Our investigation was focused on conservation of less known native chili peppers in agroforestry systems. In the Ucayali region we determined 21 native chili pepper species by phenotypic description. To see local importance of chili peppers Market study via structured questionnaires was done in biggest local markets and restaurants. Analyzing more than 65 questionnaires result in preference of only four native chili pepper species, of which 2 have massive consumption. This preference affects also local ecological producers who try to cover market requirements. Quality fruit samples of 21 determined species were prepared to detailed pharmaceutical analysis of capsaicin, antioxidant and Ascorbic acid content. Majority of analysed species presents high importance on international market and pharmaceutical development. To conserve the species and quality of the fruits is important conserve also environmental conditions. In tropical regions Multistrata agroforestry plantation is the best productive system for native chili pepper production. We hope, this investigation helps to conservation of native chili peppers species and to the development on pharmaceutical level.

Keywords: Market analysis, multistrata agroforestry systems, native chili peppers, plant species conservation