Chapter 7

Promotion of Marejea Cultivation in the Ruvuma Region of Tanzania: Experiences of the Catholic Missionaries at Peramiho Mission Centre

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SUMMARY

The existing information on marejea (Crotalaria ochroleuca G. Don) work in the Ruvuma region of Tanzania indicates that the crop has the potential to improve soil fertility and control weeds. It can also be used for feeding animals. Although the main purpose of promoting marejea in the region was for improving soil fertility, because of the incentives offered, it rather became an exercise of seed bulking. Farmers were enthusiastic to cultivate marejea as long as incentives were provided. Once they were withdrawn, interest waned. Two workshops, held in 1986 and 1987, were important in creating a forum to discuss a number of issues related to the use and adoption of marejea in the region. However, there was no follow-up after the workshops. The number of farmers currently growing marejea and their reasons for continuing the practice are not known. A study documenting this could be a starting point for efforts to reintroduce the crop in the region.

INTRODUCTION

Increased food production without adequate soil conservation measures has led to a deterioration of land quality in Tanzania. Most smallholders cultivate cereals and legumes continuously on sloping land without carrying out adequate soil conservation measures.

The Southern Highlands is the major cereal-producing region in Tanzania. In the area, the use of modern technologies, such as fertilizers, herbicides, improved seed varieties and tillage methods, has not been adequately adopted because of adverse socio-economic factors. Farmers acknowledge that crop yields are decreasing and attribute this to declining
soil fertility. There is therefore a need to explore alternative ways of increasing and sustaining food production using resources that are within the reach of most smallholder farmers.

Opportunities for maintaining and improving soil fertility through the use of green manure/cover crops (GMCCs) have been reported in the Ruvuma region of the Southern Highlands (Temu and Aune 1995) and elsewhere in Tanzania. In the early 1940s, the Wakala of Ukara Island at Lake Victoria were deliberately growing and incorporating *Crotalaria striata* DC. to restore soil fertility (Baijukya 1999). At the same time, in the Mwanza region, *marejea* (*Crotalaria ochroleuca* G. Don) was incorporated into the soil prior to planting cassava. A long-term trial involving *Crotalaria zanzibarica* Benth. (now known as *Crotalaria trichotoma* Bojer.) in rotation with maize (*Zea mays* L.) was initiated in 1983-84 at Mbozi Maize Farms Ltd., Mbeya region. More recently (1996), green manure trials based on experiences from the International Center for Tropical Agriculture (CIAT, its Spanish acronym)-Uganda with *Mucuna pruriens* (L.) D.C. and *Canavalia ensiformis* (L.) D.C. were initiated in the Bukoba district.

In Peramiho village, Ruvuma region, *marejea* cultivation (see Box 1) was started in 1942. From the 1970s onwards, its cultivation increased, because it was actively promoted to the region’s farmers. This experience, led by the Catholic Missionaries based at the Peramiho Mission Centre, merits special attention in that the incentives provided seemed to be sufficient motive to generate adoption but, when they were withdrawn in the early 1990s, almost all farmers stopped growing *marejea* in the region.

**Box 1. Some background information on *marejea***  
*Crotalaria ochroleuca* G. Don belongs to the family *Leguminosae* (*Fabaceae*). More than 500 species are recognized in Africa (66% of which are in Madagascar). While 20 species of *Crotalaria* have toxic compounds, *marejea* is known to contain only a small amount of them. *Marejea* has the capacity to fix up to 170 N kg ha⁻¹. Growth is limited by a high light requirement, sensitivity to frost and extreme acidity. The species is widespread in tropical Africa, excluding the north-eastern and the most southern parts. It is well adapted to well-drained soils and altitudes of 1300-1800 masl. Seeds are reddish-white in colour. The plant is erect, generally annual, up to 1.5 to 3 m high, with lax ascending ribbed branches. The flowers are large, yellow, reddish-veined and the petioles are shorter than the leaflets. Each pod has 30 to 60 seeds (Rupper 1997). The flowers last for 4 or 5 days, then fade. The crop takes 3 to 5 months to mature.

It should be noted that little written information is available on this experience because only limited research was conducted during the time the system was promoted to the region’s farmers and no other retrospective studies on it have been done. This study attempts to piecemeal and analyse the information (some of which is contradictory)