5.3 Sustainability of Mountainous Farming Systems

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5.3.1 Current Situation

Various ethnic minority groups living in the mountainous regions of northern Thailand have been engaged in agriculture there for several decades. Over the last two decades, there has been a trend towards permanent settlements. Former opium growing farmers, such as the Hmong, have settled down permanently and have abandoned their traditional shifting cultivation system. Since the early 1980s, national programs have led to a crucial change in the area’s agricultural structure. Traditional opium cultivation, which constituted the main source of peasant income in the region, was substituted with intensive land use systems in the form of cash crop cultivation, such as vegetables, fruits and cut flowers. Animal husbandry plays a minor role in generating income (FALVEY, 2000).

High population growth among the ethnic minorities together with the need to cultivate smaller fields has increased the pressure on intensification of land cultivation. In the long run, over-exploitation and lasting damage to the soil structure through erosion and leaching of nutrients and pesticides are the logical consequences. Due to the degradation of these resources, yields decrease and thus the income situation of farmers is appreciably worsened (see figure 5.5).
The sustainability of the land use system has to be restored in order to solve these problems. Thus, the objectives of the study are to analyse the sustainability of current land use with respect to economic, ecological and social indicators and to formulate policies appropriate for improving sustainable resource use. The investigation is based on household survey data and measurements of the chemical content of run-offs (SCHÖNLEBER, 2002; ZEDDIES, 2003).