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“Competition for Resources in a Changing World:
New Drive for Rural Development”

Evaluating the Economics of an Improved Taungya System with Teak in the Ashanti Region in Ghana

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Abstract

Land use of the Ashanti Region in Ghana is characterised by traditional small-scale subsistence farming of annual crops as well as by industrial production of timber on tree plantations. However, yields of both land use practices are constantly jeopardised by the occurrence of wild fires and soil degradation due to slash-and-burn activities of local farmers.

By joint efforts the Institute for World Forestry of the Federal Research Institute for Rural Areas, Forestry and Fisheries, Hamburg, together with a Ghanaian timber plantation company and the German Foundation for Forest Conservation in Africa aim at improving the unsustainable manner of conventional land use practices. A viable approach of creating an economically and ecologically sustainable basis for mutual benefits of all stakeholders is the implementation of an adapted version of the Taungya system, the tree “outgrower” programme. Thus, seedlings of teak (*Tectona grandis*) are put at the disposal of farmers living around the plantations while necessary skills to simultaneously cultivate them with their staple crops are taught in workshops. Additionally, farmers are provided with genetically improved material of fruit trees (orange, mango, oil palm, cashew) to be grown as a “green fire belt” at the boundaries of their cultivation areas. Bearing responsibility for preparation and maintenance of the sites, farmers are granted full possession of all yields (crops, fruits, timber) which allows them to open up a perpetual source of income based on a diversified range of products. In return, the timber company has the right of first bid for the harvested wood.

One crucial pillar for a successful implementation of the tree “outgrower” programme is its economic impact. Therefore, an ongoing study will compare the costs and benefits generated by the traditional and the improved land use systems for both local people as well as timber industry. It will furthermore reveal key factors for economic returns and thereby offer opportunities to improve the efficient use of resources.

Keywords: Agroforestry, cost benefit analysis, Ghana, taungya, teak