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## Ghana: The documented impacts of oil palm monocultures

More than 125,000 hectares of land are under oil palm cultivation in Ghana, mostly under the nucleus estate model, which implies a large plantation surrounded by smaller plantations established in local farmers' lands.

The large scale plantations were implemented by the State at the expense of local peoples lands, with little or no compensation for the cottages, camps, and farms lost, together with various land-use or proprietary rights. As could have been expected, this resulted in social resistance, as in the case of the dramatic refusal of the migrant Ningo farmers of Atobriso and Okaikrom to grant government and Ghana Oil Palm Development Company officials entry into their acquired land. The peasants' resistance has also included pilfering of palm fruit from the plantations as well as acts of sabotage, which resulted in the tightening of security at considerable cost to the plantation companies.

But, according to Ghanaian researcher Edwin A. Gyasi, "perhaps the most serious adverse effect has been the rapid transformation of the forest ecosystem and its resilient diversified ecologically based traditional economy into a vulnerable artificial monocultural system. Instability, risks, or uncertainties are inherent features of the natural environment, which the peasant farmers recognize. Traditionally, the peasants try to minimize these environmental risks, combat soil erosion, optimize utilization of the different soil nutrients, and enhance food security by intermixing crops of varying degrees of environmental sensitivity and different nutritional value, and by other forms of agricultural diversification and risk minimization. The resilient, diversified indigenous agriculture, modelled on the forest ecosystem and based on eco-farming principles borne out of the peasants' intimate knowledge of the natural environment, is being replaced by the risk-prone monocultural system, with devastating consequences for the forest ecosystem."

Among the major impacts, the following have been recorded:

- shortages of local staple foods
- the vulnerability of the monocultural palm farms to insect pests and diseases, which have experienced unusually massive and destructive insect invasions
- the difficulty of marketing palm fruit and oil associated with poor marketing facilities for the increased output
- deforestation, and the associated growing cost and scarcity of forest products such as "bush meat", medicinal plants, and wood, an important constructional material and the basic fuel source
- the high cost, erratic supplies, and polluting effect of the agrochemicals used to boost palm yields and to control pests and weeds, especially in the large plantations
- environmental pollution by the palm fruit and palm oil effluents.

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In sum, although large-scale oil palm plantations might appear to be attractive because of their ability to accelerate agricultural production and agro-industrial growth, they are basically vulnerable and have adverse effects on traditional landholding and land-use rights, on food and fuel security, and on the natural environment.

Article based on information from: Edwin A. Gyasi, "The environmental impact and sustainability of plantations in Sub-Saharan Africa: Ghana's experiences with oil-palm plantations"; Oil Palm Research Institute,