

**ASSESSMENT OF THE IMPACT OF BUFFER ZONE DEVELOPMENT ACTIVITIES ON  
THE SOCIO-ECONOMIC CONDITIONS OF THE LOCAL COMMUNITIES AND THE  
FOREST RESERVES IN KPANDO DISTRICT AND HO AREA**

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**ABSTRACT**

This study was undertaken at the Forest Reserves of West and Dayi Blocks in Kpando District and Abutia Hills Forest Reserve in Ho District, both in the Volta Region of Ghana. The primary objective of the study was to investigate the impact of Buffer zone development activities, as being implemented by the Forest Protection and Resource Use Management (FORUM) Project, on the socio-economic conditions of the local dwellers and on the environment of the Forest Reserves under study. It was also aimed at assessing the local dweller's perception about the socio-economic role/value of forest flora, the relative abundance of the various use classes of these resources as well as their level of awareness about the causes of changes, if any, in the abundance of forest flora. The main buffer zone development activities studied were: Beekeeping, Economic tree planting and the use of Mucuna cover crop as a soil improvement strategy.

The methodology used in the study included the following (i) Inventory on melliferous flora to provide information on the future prospects of natural honey production or beekeeping and the basis for determining the need for enrichment planting to support the beekeeping industry in the study area, (ii) Floral phenological studies of the identified melliferous trees to establish a possible link between these trees, beekeeping and natural honey production, (iii) Interview survey, which involved the administration of questionnaires to randomly selected beneficiaries of the three main buffer zone development strategies of FORUM mentioned earlier, in order to assess their perception about the role of forest flora and the impact of the buffer zone development strategies on their socio-economic conditions.

The results of the study indicated that the 15 melliferous trees encountered in the study area belonged to 13 different plant families namely: Anacardiaceae, Apocynaceae, Bignoniaceae, Bombaceae, Caesalpiniaceae (2), Combretaceae, Meliaceae, Mimosoideae (2), Moraceae, Sapindaceae, Sterculaceae and Verbenaceae. Out of the 15 melliferous trees encountered, 10 were sources of forage for bees and six provide habitat as natural hives for bees.

It was also evident from the interviews that local dwellers are well aware of the utility value of forest flora. They are also aware of the decline in the abundance of the resources and the causes of this decline.

Modern beekeeping as introduced by FORUM is fast replacing wild honey hunting and now bees are considered as beneficial insects rather than as enemies. However, the over reliance on Odum Kenyan Top Bar Hives due to its relatively better durability raises the initial cost of the venture, making it difficult for practicing beekeepers to construct their own hives besides the two that FORUM supplies them. There is the need to research into other locally available low cost materials that can be used for making good hives. The cultivation of economic fruit trees, and the siting of beehives close to the forest reserves, acts as incentives to protect the forest against bushfires. Citrus and Oil palm are preferred to other economic trees like coconut and mangoes.

The rate of adoption of Mucuna cover crops is quite high due to the high demand for land as a result of the creation of the Volta Lake and the Forest reserves. A short-term fallow crop like Mucuna is therefore an acceptable practice in the study areas. However, education on other uses of Mucuna, especially its nutritional value would further encourage local dwellers to plant it.

## **SUPERVISOR**

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