

F-08: Drought and household coping strategies among farm households in the Huruluwewa Watershed

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Drought and dry spells are caused by the failure of expected monsoon rains in the Dry Zone of Sri Lanka. Such failures may lead to wilting of plants and decrease in the levels of water in streams and reservoirs resulting in shortages of water for agriculture, animal husbandry and even for domestic use. The majority of the tanks in the Dry Zone are dependent on the local rainfall and are therefore subject to recurrent drought. Mahameegaswewa sub-watershed was selected for investigation as one of the areas severely affected by 1996 drought in the Huruluwewa watershed. Mahameegaswewa is a small tank 'cascade' system located in Palugaswewa DS division of the Anuradhapura district. Households in this village tank system, faced with considerable threats to their food

benefits to the clients. A new extension approach²- Farmer Field Schools (FFS) has been introduced as an alternative. The FFS provides a participatory learning environment where farmers were given an opportunity to observe, to analyse and make decisions.

This study mainly focuses on effectiveness of FFS as an extension approach in technology dissemination pertaining to Integrated Pest Management. This study was carried out in Ambalantota Divisional Secretary's Division in Hambantota district, during 1996/1997- Maha season. Two villages, Karawilagama and Superintendentgama were selected for the field survey.

The study investigated knowledge gaps between two farmer groups in two aspects related to IPM. Farmers who have undergone FFS on IPM methods were included in one group while ordinary farmers were included in the other group. Estimation of knowledge gap in preventive measures was followed by an agro-ecosystem analysis to estimate level of knowledge in beneficial insects and pests.

Study reveals that 93% and 80% of FFS and non-FFS farmers possess a high knowledge on mixing ratios and expiry dates of agro-chemicals indicating a lower knowledge gap. However, FFS group had a better knowledge in several other preventive measures indicating positive impact of extension programme. FFS farmers had a higher ability than non-FFS farmers did in identifying pests and major beneficial insects in their microenvironment as well as threshold levels. This knowledge leads farmers to reduce pesticide use and hence to maintain agro-ecological balance. This validates FFS as a knowledge dissemination approach as it has proved effective in dissemination knowledge on IPM.