2012

'Bridging Knowledge Systems for Pro-Poor Management of Ecosystem Services' ('BKS') project

Fieldwork report

Gardens project (Diaries)

The starting point of the gardens project was the reviewing of the recordings of the rain gauge readings, which Mr. Mumba made a briefing on. See pictures of the rainfall recordings attached in the appendix. Mr. Mumba noted that the area has been experiencing a partial drought. Below is Figure 7 showing the rain gauge that is placed at Mr. Mumba's home in Sikwenda village.

Figure 7: Rain gauge in Sikwenda village

This was followed by an inspection of the gardens of the farmers that were recruited for the project. The report provides observations and isssues arising from discussions with the farmers that were recruited for the gardens projects. A total of thirty six farmers form the three villages namely Kamphata, Kesadi and Sikwenda were recruited for the gardens project.

Most of the farmers that have been recruited for the gardens project grow only maize and pumpkin leaves in their gardens. The maize was planted either in late October or early November to coincide with the start of rainy season. The food crops are meant to act as a buffer aginst hunger before the maize that is planted in the main fields is harvested. This ensures that that there is food security in the homes of the respective village members. Some farmers have indicated in their dairies that they had irrigated when they experienced extended periods of no rains. The most common challenge faced by the farmers is goats, pigs and chikens breaking into the gardens and destroying the crops. The stalk borer pest is the most common pest that attacks maize crops in the garden.

Figure 8: A graden fenced with Jatropha where livestock have destroyed the crop

Figure 9: A garden fenced with partly Jatropha and partly sticks where crops have been destroyed

The local maize variety is the most cultivated variety with some farmers indicating that they had planted hybrid varieties alongside the local variety. Manure (cow dung) is the most applied to the home gardens. In some cases gardens have been established were there was a cattle kraal previously and in some cases farmers have felt that there is no need to fertilize the crops. Although some farmers have applied convential fertilizers (D-compound and Urea) in small quantities. There were a few exceptional farmers that have established fairly large productive gardens. One good example is Mr. Amos Zulu who has planted tomatoes and beans in his garden. Figures 10 and 11 below shows the tomatoes growing in Mr. Amos Zulus's garden. His garden is wholly fenced off with sticks. But the garden is next to a small cattle kraal that is located near the entrance to the garden. The farmer applies pesticides to his tomatoes and has a good record keeping system.

Figure 10: Mr.Amos attending to his tomato plants in the garden

Figure 11: Mr.Amos's tomato garden in Kesadi village

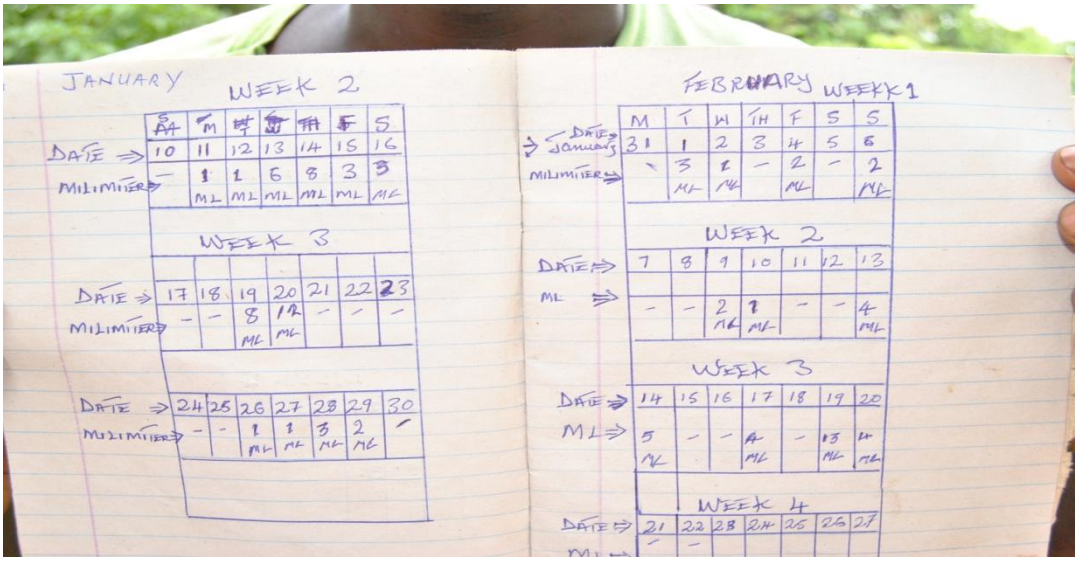
It was also observed that some gardens that where wholly fenced with Jatropha, they had experienced goats and pigs breaking into the gardens destroying the crops in some case the entire garden. Where there was a minimal damage caused by the livestock, the weak points were sealed off to avoid the livestock from entering into the garden.

It was also observed that entries of data was poorly done in some cases. For example information on when the weeding was done and the number cobs that were harvested were not properly recorded in the diaries of some famers. This reflects the poor record keeping system of small-scale farmers in Zambia. It was also observed that approximately 50% of the gardens of the recruited farmers were managed by women. The farmers also noted that they are interested in learning about the outcomes of the project as a way of making their farming activities profitable.

Summary and conclusions

The field survey covered two projects in Nyimba district, namely the “Jatropha soap” project and the “gardens” project. The soap making exercise was carried out in Chipembe village where Jatropha oil was expelled using a Yenga press. Approximately one litre of Jatropha oil was expelled and used in the soap making exercise. The mixture (caustic soda, water and Jatropha oil) used for making the soap had blended well though the oil that was used did not settle hence it had a dark brown apperance. A mould made from a carton box was cut to the desired size into which the mixture was poured and was left to harden in a cool place. For the gardens project, thirty six farmers (male and female) were recruited from Kamphata, Kesadi and Sikwenda villages. The gardens had fencings that ranged from wholly Jatropha fences to fences that were wholly sticks and a mixture of the two types. The diaries for the farmers were reviewed and it was observed that some of the farmers had been making entries consistently in the diaries while some of the farmers had not been consistent with their entries in the diaries. Goats and pigs are still a nuisence to some of the farmers that have not fenced off their gardens well.

Apendix A: Recordings of the rain gauge in Sikwenda village



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