

USING CAPACITY DEVELOPMENT SERVICES TO CONJUR UP ENTERPRISES: A CASE OF FOUR ENTERPRISES MAKING SOAP FROM JATROPHA SEED IN THE WESTERN PROVINCE OF ZAMBIA

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On 19th December, 2009, with much jubilation and ululation, members of Mbuyoti Enterprise sang at the premises of SNV in Mongu in the Western province of Zambia saying "It is only SNV. Yes only SNV. They are the only ones who have helped us to know how to make soap from our own trees." In Kalumwange, seventy-nine (79) kilometres north of Kaoma, Bumvem Kababu, a Jatropha farmer, bubbling with joy declared, "We have been living with these trees (Jatropha trees) until now when we have grey hair. We have not known that we can make soap from them. Our children shall be very happy. They will live a better life".

CHALLENGE

These are reactions to the efforts of the Netherlands Development Organisation (SNV). As one of the ploys (in the strategic plan) in ensuring that three (3) million Jatropha trees are planted and cultivated on three million hectares by three thousand farmers in the Western province by 2010, SNV engaged a consultant (or local capacity builder in SNV jargon) called JL Mutale Enterprises for a period of four (4) months to train Jatropha farmers on how to make soap from Jatropha seed, package it and sell it. The intervention was implemented as a pilot project in four areas of the Western province of Zambia.

Jatropha has the highest oil/energy ratio content of oil seeds crops and is second only to palm oil in this regard. By-products can be used to make fertilizer, soap and medicines. Although it is an exotic species, Jatropha has been growing indigenously in Zambia for many years. The total area under Jatropha cultivation is currently estimated at 80,000 hectares.

Teaching the farmers how to add value to their crop would solve one of the problems in a sub sector with multiple shortcomings: Input markets (seeds, seedlings, pesticides) are insufficiently organized, out grower / processing companies have difficulty accessing financing, existing extension services are inadequate, low access to electrical energy in the rural areas, and the processing technology is not wholly appropriate.



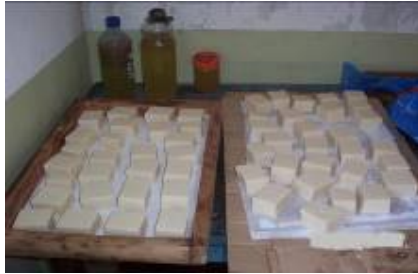
CLIENTS

In November 2009, along with its clients (Africa Works, Lukulu District Cooperative Union, Kaoma District Co-operative Union), SNV selected Mawawa (16 km East of Mongu), Namushakende (20 km South of Mongu), Kasombo (Lukulu), Ngimbu (20 km South East of Lukulu), Luanchuma (16 km North West of Lukulu), and Kalumwange (79 km north of Kaoma).



METHOD / SNV INTERVENTION

In the first three – week phase, JL Mutale Enterprises facilitated the formation of Swalisano Co-operative in Mawawa, Mbuyoti Co-operative in Namushakende, Kajo Co-operative in Kalumwange and Kaluangi Co-operative in Lukulu. Being a pilot intervention, the co-operatives were required to be small with Swalisano Co-operative having fourteen (14) members, Mbuyoti Co-operative having fifteen (15) members, Kajo Co-operative having eleven (11) members and Kaluangi Co-operative having ten (10) members. Thus, the cooperatives have a combined membership of fifty (50). In the subsequent two stages the four groups were taught how to make soap and how to market it. In the final phase, each of the four enterprises prepared business plans. In the closing phase of the training in March, 2009, action plans were drawn up by each of the enterprises and are being executed by the four enterprises on the development of the enterprises



that include purchase/collection of Jatropha seed, setting up of nurseries, sourcing financing, construction of factory, purchase of processing materials etc.

Thereafter, SNV worked with the four organisations so that they continued buying seed and other inputs, processing it into soap, selling the soap and buying more seed. Since March, 2009, the SNV lead advisor for oil seeds value chain, has had regular meetings with the members of the co-operative every two weeks to discuss the operations of the business.

OUTCOME

All the enterprises have been formally registered with the Patents and Companies Registration Office (PACRO). With the advice of SNV, loans from Africa Works Ltd have been approved for Swalisano (ZMK 8 million or US\$ 1,600) and Mbuyoti Enterprises (ZMK 9 million or US\$ 1,800) for the purchase of Jatropha planting seed and Jatropha processing seed. Africa Works Ltd, shall pay out the financing as soon as the four co-operatives complete further formal training in costing, cash flow planning, and sourcing financing by the end of November of 2009. Also with coaching from SNV, Kajo and Kaluangi shall be among the primary co-operatives to benefit from US\$ 100,000 approved for Kaoma District Co-operative Union and US\$ 100,000 approved for Lukulu District Co-operative Union respectively by the Embassy of Finland (under the Local Cooperation Fund).



In Mbuyoti, 75 kg of seed had been purchased by the enterprise. With the seed 30 litres of Jatropha oil had been extracted. From the first batch that used 28.5 litres of Jatropha oil, 60 pieces of soap were produced. The soap was sold at K 2,000 (US\$ 0.40) per piece. 1.5 litres of Jatropha oil remained for sale as lantern oil at K 1 200 (US\$ 0.24) per litre. The enterprise would also raise financing by offering their labour in making blocks in return for blocks that they would sell for cash. One nursery has been prepared on a single hectare plot of land in Mawawa by Swalisano. 110 kg of seed had been purchased by the enterprise. With the seed 30 kg (30 litres) of Jatropha oil had been extracted. From the first batch that used 6 litres of Jatropha oil, 62 pieces of soap were produced. From the second batch that used an added 6 litres, 72 pieces of Jatropha soap were produced. The soap was sold for K 1,600 (US\$ 0.32) per piece. 2 litres of Jatropha oil remained for sale as lantern oil at K 6,000 (US\$ 1.20) per litre.

Kaluangi Co-operative has raised K 800,000 (US\$ 160.00) from contributions from members of the co-operative. A temporal shelter shall be prepared for processing the Jatropha. The co-operative bought 160 kg of Jatropha seed at K 600 (US\$ 0.12) per kg from the surrounding areas. Kaluangi has planted 1,000 Jatropha trees and has found 257 wild Jatropha trees and has recruited 86 farmers. The co-operative would also set up three (3) nurseries in Kasombo, Luanchuma and Ngimbu areas.

As this effort was a pilot intervention, there are plans for scaling up of the operations. In both Kaoma and Lukulu, the respective district co-operative unions have commenced implementing district-wide projects for the growing of jatropha and expansion of soap making operations. Under these projects, four (4) new small scale soap factories are to be constructed in Kaoma and three (3) new factories in Lukulu. It is planned that the soap processing factories shall be purchasing 1,539 tonnes of jatropha seed per annum for making soap, lantern oil and organic fertiliser. From the seed, it is planned that 513,000 litres of crude oil shall be expelled from which 7,695,000 tablets of soap (bathing and laundry), 128,250 litres of lantern oil, and, 1,539,000 kg bags of organic fertiliser shall be produced for sale annually. The factories shall employ a total of 200 people by the end of 2010. It is projected that the processing operations shall earn annual revenue of K 11,542.5 million (US\$ 2,308,500) per year from sale of soap, K 769.5 million (US\$ 153,900) from sale of lantern oil and K 3,079 million (US\$ 615,600) from sale of organic fertiliser. The two projects in Kaoma and Lukulu shall be financed in part by the US\$ 200,000 that has been approved by the Embassy of Finland's Local Co-operation Fund.

Owing to the SNV jatropha program, so far 2,750,300 trees have been planted in Mongu, Kaoma and Lukulu. The soap enterprises have planted nurseries to increase the stocks of jatropha trees in the province. Since the beginning of the year 1,560 new farmers (310 in Mongu, 420 in Lukulu and 830 in Kaoma) are growing or are soon to receive seedlings and start growing Jatropha. A total of forty (40) rural farmers in Kaoma, Lukulu and Mongu are earning additional income from processing Jatropha into soap, and lantern oil. Given a dependency burden of six (6), the income from Jatropha supports 240 persons in three districts of Kaoma, Mongu and Lukulu. Owing to the processing of Jatropha in Mongu, Kaoma and Lukulu the households in villages surrounding Kalumwange, Luanchuma, Mawawa and Namushakende areas of Kaoma, Lukulu and Mongu respectively are now selling Jatropha seed from hedges and wild trees on their land for K 700 (US\$ 0.14) per kg of seed. They were not earning income from selling the seed before.

The activities could be replicated in any place where Jatropha is available in the required quantities whether the crop is cultivated or wild. This includes many of the countries in Sub – Saharan Africa, Asia, Latin America and Europe.

LESSONS LEARNED

The processing of agricultural produce is extremely important for the farmer as it puts them in control of the marketing of the produce and enables them to earn more money for the crop they grow. The training on processing Jatropha into soap has been very key in encouraging farmers to start growing Jatropha. This echoes in the words of George Kalengesa, Chairman of the Kaluangi Co-operative in Lukulu. He said "We have seen the benefit of processing seed into soap. For each kilogram of Jatropha seed that we process into Jatropha oil and soap we get more income from selling it at the market. We are no longer at the mercy of traders who dictate a price to us".