

Community based cattle projects in Zambia: a new approach to oxenisation

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Abstract

The community based cattle projects described in this paper are a joint activity of Smallholder Agricultural Mechanisation Promotions (SAMEP) and Heifer Project International (HPI). The first projects commenced in 1997 in six areas. The projects have now expanded to 11 areas. The major objective is to increase the availability of draught animal power (DAP) at the village level. Key characteristics of the projects are: an in-kind credit scheme, intensive farmer training with emphasis on animal reproduction, husbandry and DAP, activities targeted at individual households and the community. In each area local organisations are partners in implementing the project.

The paper first describes the background to DAP development in Zambia and then discusses various aspects of project implementation. This is followed by a description of the current status and a concluding section, which examines the constraints, and challenges of the projects. It is concluded that the activities, which SAMEP and HPI considered as pilot projects, yielded positive experience and results. Replication of the approach is desirable and justified, provided that at least one of the initiating organisations can co-operate with communities in the project areas on a long term basis.

Background

With regard to knowledge and use of DAP, Zambia can be divided into: the Southern, Western and Eastern region where the technology was introduced in the first decades of this century and where it is now common; and the Northern areas where DAP is hardly used and where rearing of large livestock is rare. The Northern parts take up no less than 50% of the total surface area and accommodate approximately 40% of Zambia's total rural population. In 1991 it was estimated that 113 000 farming households in the country owned oxen, constituting 18% of the total number of farming households, that 95% of the oxen owning households resided in the Southern, Eastern, Western and Central zones, and that 468 000 ha were ploughed with oxen, equivalent to 52% of the total area under crops in the country (Dibbitts and Mwenya, 1993).

In the mid 1980's the Zambian Government incorporated the development of DAP in its agricultural policies. The emphasis, in the previous two decades, on tractor mechanisation as a strategy to modernise and transform African agriculture yielded no long-term success (Wood and Milimo, 1994). Before 1995, DAP development was channelled through the public sector with the Ministry of Agriculture, Food and Fisheries (MAFF) being the chief actor in policy development, co-ordination, implementation and monitoring of activities. A major element of the national exercise to reform the agricultural sector, termed the Agricultural Sector Investment Programme (ASIP) and initiated in 1992, recognised the role that the private sector, farmer organisations and NGOs play in agricultural development. The task of the government is to

facilitate, co-operate and regulate. Under ASIP, 15 sub-programmes covering the different agricultural disciplines were created, Farm Power and Mechanisation (FP&M) being one of these. DAP development remained a leading subject in the FP&M sub-programme.

In the 1940's and 1950's the need of the colonial government to ensure that the demand for food from the growing urban population in the profitable mining areas was met, formed the basis for a policy to develop African farming (Chipungu, 1988; Seur, 1992). Most attention and resources were allocated to the establishment of farming schemes. Amongst other benefits, farmers in these schemes received subsidies for the purchase of DAP technology. Seur's (1992) study of Serenje District showed that although the farming schemes did not fully meet the objectives set by the then government, the schemes did have an impact with regard to DAP, which is still felt today. The schemes marked the beginning of a firm place for DAP in the farmers' conception of agricultural progress.

The renewed emphasis, since the 1980's, on DAP as part of smallholder farming development resulted in marked advancement of training, extension and technology development, in improvements in manufacturing and supply of equipment, and in diversification of the use of DAP. Credit facilities became available for farmers adopting DAP, often on a provincial basis and linked to donor supported projects.

The progress made, however, did not contribute to a significant and lasting increase in agricultural

production, despite the fact that numerous individual farmers benefited economically. The following detrimental circumstances took their toll:

- ***A poor performance of the general economy***

Although Zambia, since the early nineties, put in place and maintained a comprehensive macro-economic reform programme, this did not translate in substantial economic growth.

- ***The negative effects of the sudden liberalisation of the agricultural economy***

The state-controlled, centralised and subsidised system of production and marketing was replaced by a privatisation policy. The collapse of the centralised system was sudden and has brought about positive and negative effects. Positive for example in that the new policy removed the maize dominance and brought new crops and processing technologies into the country. Negative in that gaps were left by the hasty change: the private sector did not respond immediately to all the needs of farmers in all parts of the country. The interest of the private sector centred on out-grower schemes for certain crops, fertiliser and seed supply, and non-isolated geographical areas. Gaps were found in supply of farm equipment, financial services and livestock disease control. For example, government's instant withdrawal from support to cattle dipping has contributed to a massive decrease in the numbers of these animals in the Southern and Central parts of the country.

- ***Drought***

Zambia, has been subjected to recurring droughts over the last two decades, which have seen a decrease in the cattle population.

- ***Disease***

Of particular gravity is the wipe-out of cattle since the late 1980's due to corridor disease. Monze district is one of the major crop producing districts in the Southern Province. Before the outbreak of corridor disease, the district had a total cattle population of approximately 300 000. The current number is estimated at 77 000 (pers. comm. District Veterinary Officer, Monze). A 1998 survey by SAMEP among 1629 households in Monze East found 23% of the households owned one or more draught animals. Among the female headed households (24% of the total number of households included in the survey), 14% owned draught animals. Comparison of these data to the 53% of households owning draught animals in Monze district as recorded by Dibbits and Mwenya (1993) gives an indication of the decline in availability of animal power in the last decade.

These circumstances have resulted in a decline in crop production in the Southern Province, once a province

with a thriving agricultural economy characterised by wide-spread use of DAP (Chipungu, 1988).

This notwithstanding, DAP still constitutes a major aspect of agricultural policy and practice. As a result of the problems with cattle, interest of farmers and policy makers in donkey traction has increased. Government and NGOs have imported donkeys from neighbouring countries and introduced the technology in various areas. Moreover, there are good examples of farmer initiative, especially in Central Province, in donkey traction without external support. But expansion of donkey traction in Zambia can naturally only be slow. The total number of donkeys in the country is a couple of thousand and reproduction is slow. Better general economic conditions, and maintaining the aforementioned achievements in DAP development, improved cattle management, supply and disease control, as well as more efficient use of scarce animal power, are required to realise the full potential of the technology.

Onset

One of the activities within the ASIP/FP&M Sub-programme is the Smallholder Agricultural Mechanisation Promotions project (SAMEP) which started in 1996. SAMEP is funded by The Netherlands Government and implemented by Africare, an international NGO working in 23 African countries. IMAG-DLO provides technical assistance to the SAMEP programme. SAMEP's specific task is to develop, strengthen and consolidate the role of the private and NGO sector in agricultural mechanisation, complementary to public sector efforts. SAMEP focuses on DAP, on conservation tillage in particular, and on post harvest technologies.

Recognising the need for increased attention for animal management and supply aspects in the promotion of DAP, and the role for the NGO and private sector herein, SAMEP established linkages with two NGOs specialised in livestock development, namely Heifer Project International (HPI) and Keepers Zambia Foundation (KZF).

Another reason for seeking co-operation with HPI and KZF was SAMEP's aim to reach resource poor households, which have a clear potential to improve farming when having access to DAP. This aim emerged from the evaluation of the Palabana Animal Draught Power Development Programme (PADPDP, 1995), from which SAMEP was born, and became more opportune as DAP credit facilities faded away in the wake of on-going liberalisation. In 1997 SAMEP and HPI started joint community based cattle projects on a pilot scale in three districts. KZF, and a fourth district, joined in 1998 (Table 1).

Table 1: Details of pilot project areas in Zambia

Province	District	Areas	Local Partners	% of households in the areas owning draught animals
Southern	Monze	Chiyobola Sikabenga	Ministry of Agriculture Catholic Diocese	23 % (of the female headed households 14% own draught animals)
Northern	Kasama	Chamfubu Chiombo Mwamba	Ministry of Agriculture Catholic Diocese (Ministry of Community Development)	4% (Dibbits and Mwenya, 1993)
North Western	Solwezi	Chingovwa Kyabankaka Lamba Muyashi	Africare Integrated Extension project (Ministry of Agriculture)	0.3% (Dibbits and Mwenya, 1993)
Western	Kaoma	Kangolongolo Mukuye	Keepers Zambia Foundation	

Description

In each of the areas mentioned in Table 1 the community is asked to select five households to form a cattle-in-trust group. Prior to household selection the criteria for participation in the project are discussed and agreed. The following general selection criteria apply: households must be resource poor, not own cattle, depend on crop production as the main source of income, and have demonstrated readiness to progress in farming. Before the group receives cattle, they attend practical training in the village, weekly or bi-weekly for a period of not less than three months, on animal husbandry and disease control, DAP, project implementation and community development. The households have to construct kraals and crush-pens, store crop residues for dry season supplementary feeding and arrange for savings to purchase veterinary requirements. The group then receives 10 heifers and one bull. Each household keeps a pair of female animals. One of the households is selected to keep the bull under an arrangement whereby all households in the project are responsible for its upkeep in return for having access to it. For each heifer received one offspring has to be paid back. When a household pays back a weaned calf, the initial animal becomes their property. The offspring are loaned to other eligible households, who pay back in kind in the same manner to a neighbouring farmer, and so on and so forth. The activity is primarily aimed at producing draught power to help improve crop production and rural transport. Appropriate use of female animals for draught is encouraged. Other outputs are multiplication of the herd, milk for better nutrition and sale, and manure to improve soil fertility.

Implementation

The above description shows that the cattle projects are localised, intensive activities with a long term

perspective involving various stages and different issues, which are further explained below.

Structure

In each area co-operation is sought with a local partner before the project is taken to a community. This can be a local government institution, or a local project or NGO. A memorandum of agreement is drawn up and signed by all parties in which each other's roles and responsibilities are laid down. The identification and active involvement of a local partner, and its field staff in the project areas in particular, is critical, especially in the first two to three years of the project.

Household selection

The selection of households is in principle done by the community itself. Staff of the local project partners monitor the process and intervene when necessary. Alterations in the initial selection may have to be made, before animals are issued, depending on the extent to which the selected households meet the requirements during the training and preparatory period. In some areas households to receive the first pass-ons are selected as soon as the project starts and begin training together with the first recipients of animals. In other communities the recipients of pass-ons are selected later, namely three to six months before the calves are ready for handing over. Determining factors for the projects to succeed are the ability of the farmers to work together and a high degree of common interest among them. In some situations an existing farmer group with a good track record can be chosen. A group size of five to 10 households is best to ensure commitment and effective co-operation and implementation.

Training and preparation

The co-operating organisations with the involvement of the farmers draw up a training plan whose contents depend on the local situation and needs. The following are general characteristics. Most training takes place in the village. Each session lasts two to three hours. The training is practical and participatory with ample time for discussion and sharing of experiences and knowledge. At the end of each session the group decides on activities to be implemented before the next meeting. Local field staff conduct the training. Assistance from specialised staff and resource persons is called in on a regular basis. These can be district or provincial level staff, but also farmers who already have experience with these projects. Tours to existing projects can be included in the training. The project as a whole, and the training in particular, stresses that households, not individual farmers, participate. Sharing of information among household members (male and female) and attendance of the training by more than one member of each household is encouraged. Capacity building is an important theme in the training, and is aimed at the community fully taking up the management of the project after an initial period of two to three years. The training is open to other interested farmers who have not (yet) been selected to receive cattle. These farmers can benefit from the training in case they have cattle of their own, or in case they plan to acquire animals themselves.

Cattle purchase, allocation, repayment and replacement

Animals of good local or mixed breed, sourced as nearby as possible from the project areas, are purchased for the activity. The suppliers can be smallholder, emergent or commercial livestock farmers. An additional component to the project can be a training programme for the supplying farmers to improve management, reproduction, off-take and income from their herds (Meinderts, 1996). This is especially relevant in areas where the demand for draught cattle is expected to become high.

Selection of animals is done with the help of veterinary officers. SAMeP provides funding for the purchase of animals for the areas mentioned in Table 1. If the distance allows, the animals are trekked by the recipient farmers, otherwise a truck is used. The cattle are allocated using a lottery, upon which the recipient households sign a formal contract. The contract includes the condition that, when the household does not look after the animals well, before having paid them back with offspring, or otherwise fails to comply with the project regulations, the animals will be withdrawn and allocated to another eligible household.

So far, this has happened once in the SAMeP/HPI projects. The cattle allocation and signing of the contracts is a ceremony, attended by local leaders and residents to help increase community awareness and ownership of the project.

The repayment of a cow is done when its first calf is weaned. Recipients of off-spring get a pair of calves and sign the same contract as the first recipients of animals. The farmers who hand over a calf from then on own the mother cow. This is formalised with a certificate of ownership. The handing over of calves is also a community ceremony. In case a male calf is handed over, the recipient farmer exchanges it for a female animal from an external source; if necessary, field staff helps to source an animal for exchange. Exchange of an initial project animal may be necessary if it fails to get pregnant or if it is in bad condition without prospects for improvement. In case an animal dies before it is paid back, the income from the sale of meat is used to source replacement. Cases of death have been experienced in the Monze projects, but not in the other areas. The cause of the death of four animals in Monze was corridor disease, despite tick control being practised. The problem of recommended tick control not being adequate to prevent outbreak of corridor has also been experienced in other areas in Zambia (ICTTD, 1998). Recently a vaccination programme against corridor has been introduced in the Southern Province.

Animal husbandry

Good animal husbandry is emphasised, with feeding and disease control receiving special attention. In areas where cattle keeping is non-traditional farmers must learn and accept that grazing and herding animals is time and labour consuming. Preparing and feeding dry season supplementary feed is stressed in all areas. Emphasis is on collecting and storing of good quality crop residues.

Much time is spent on training farmers in prevention, recognising and control of common diseases. The farmers have to put in place measures for tick control. In most cases this is a group activity whereby all project animals are brought together in a crush-pen and are treated with acaricide using a knapsack sprayer. The acaricide is bought from the farmers' group savings. Farmers and veterinary field staff are encouraged to co-operate on a regular basis and especially at the earliest stage of an expected problem. Another important aspect in the training is reproduction. Farmers and staff work out an optimum strategy in view of the dual purpose of the animals which is draught power and multiplication. The bull must be exchanged every two years.

Table 2: Details of the numbers of animals on the project

District	Number of animals issued ¹	Current total (August 1999)	Number of animals pregnant (August 1999)	Number of calves handed over (August 1999)
Monze	22 (Sept/Oct 1997)	36	11	6
Kasama	18 (Oct 1998)	21 ²	3 ³	0
Solwezi	18 (Sept 1998)	27	5	0

¹It is planned to issue 22 animals in Kaoma, and another 26 in Solwezi and 15 in Kasama in Sept/Oct. 99.

²The heifers in Kasama were very young when issued.

³The number of pregnant animals may be higher. Pregnancy diagnosis was not completed in all animals at the time of compiling these data.

Draught animal power

Farmers in the project use female animals for draught. In the southern part of Zambia the use of cows for draught has become very common as the cattle death toll due to drought and disease advanced. Panin and Ellis-Jones (1994) state that the use of cows for draught is technically feasible and a means of raising net farm income. However, the project initiators realise that to make optimum use of female animals for breeding and draught, good animal husbandry must be practised. The emphasis on animal nutrition is also supported by the finding by Zerbin *et al.* (1994) that feeding has a greater effect on milk yield and reproductive performance than work does.

In areas where DAP is common, the farmers can do training of the animals for work themselves. In introductory areas assistance is needed from farmers from elsewhere or specialised staff. As a result of previous DAP projects, in most introductory areas people who worked as ox-trainers can be found (Muswema, 1996). Farmers are responsible for making available the necessary DAP equipment. The training includes local manufacture of yokes and riems. In some cases implements are available from earlier projects, or before cattle died. In other cases farmers are linked to another activity of SAMEP, namely the promotion of and support to rural supply of farm equipment.

When starting the project, there is special attention for selecting households which are likely to make use of DAP in an economic manner. In the training the profitability aspects of DAP are given attention, because farmers tend to look at the benefits of area expansion only. Issues of timeliness and availability of inputs and labour to rationalise area expansion must also be taken into account.

Project costs

A total estimated budget of US\$ 9 400 to US\$ 14 500 is needed per project area for the initial two years: US\$ 2 000 to 2 500 for the purchase and transport of 10 heifers and one bull, US\$ 150 to 250 per month for training and running costs in the project area and US\$

150 to 250 per month for monitoring and supervision by the project initiators. This includes fuel and maintenance, per diem, tel/fax, postage and publicity. Obviously, the actual costs may be lower or higher, depending on local prices, distances, available facilities and contributions by others. If a higher budget can be accessed the number of participating households per area, and hence the number of cattle allocated, can be slightly increased, observing a suitable farmer group size for this type of project. Availability of some funding for training, monitoring and supervision after the first two years is useful to assist the community to handle the activity on their own.

Current status

The projects described in this paper do not have a long history yet: in Monze cattle were allocated in September-October 1997 and in Kasama and Solwezi this was done one year later. The response from the recipient households, the communities in general, and the co-operating local partners has been very encouraging. Well before the animals were allocated farmers actively participated in the training and worked together to put in place the requirements like kraals, crush-pens, supplementary feeding and savings for veterinary drugs.

Table 2 shows details on the performance of the herds. The disease and death problems in Monze reduced reproduction in that area; in Kasama reproduction has been slow because most heifers were still very young when purchased and allocated.

In Monze the first six calves were handed over to three new households in February 1999, by which time the six mother cows became property of the farmers who handed over the calves. In Kasama and Solwezi the first handing over is planned in October/November 1999 which will also be the time for a second handing over in Monze.

The animals in Monze have all been trained for draught and were used for fieldwork in the 98/99 season. Table 3 shows the combined crop production of the participating households in the 97/98 and 98/99

Table 3: Accumulated crop and milk production in Monze¹

Crop	1997/98	1998/99
Maize (bags)	195	315
Groundnuts (bags unshelled)	29	43
Sweet potatoes (bags)	18	68
Cowpeas (bags shelled)	2	6
Sunflower (bags)	8	1
Bambara groundnuts (bags shelled)	1	2
Cotton (kg)	1800	1500
Total value of crops produced (in US\$) ²	4090	6,346
Total value of milk produced (in US\$) ³	n/a	1,080

¹The data in this box are from the 10 households which received a pair of heifers each in 1997. The quantities are based on the farmers' statements, not on on-farm measurements.

²This is the total value of crops produced, i.e. crops for household consumption and for sale.

³This is the total value of milk produced. About half of the milk is sold, the rest is consumed in the household, mostly in a sour form. The average milk yield per lactating cow per day is 3 litres.

season. To a large extent the farmers attribute the increase in production to availability of DAP. In Solwezi and Kasama training for draught has started; in the 99/00 season the first animals will be used for fieldwork. In addition to draught power, farmers highly value the availability of milk for nutrition and income (see Table 3) and manure, which is used in vegetable gardens and maize fields. The returns will improve in the coming years as the herds reproduce, as more households participate and as the farmers gain more experience with animal husbandry and traction.

Follower farmers attend the project training, the number varying from five to 15 per project area. In Monze some of the follower farmers, who had lost confidence in cattle keeping after all their animals had died, acquired new animals on their own and started to practice improved husbandry. They would probably not have invested in cattle again in the absence of the project. Replication of the project in other areas has started. The major actor is HPI, whose position and budget in Zambia has been strengthened since the start of the SAMeP/HPI pilot projects. Replication renders the new projects more cost-effective because of experiences and lessons learnt from the pilot projects. Costs, especially for training, monitoring and supervision, can be reduced when the replications are located in areas close to the initial projects.

Conclusion

Below are tentatively listed the merits and disadvantages of the community based cattle projects. The list may in future prove to be inadequate because the projects are new for Zambia and at the moment experience does not range very widely yet. Furthermore, the projects although small in number, size and budget encompass many aspects. In the words of one of the collaborating field staff (H. Mutinta, district animal husbandry officer Monze): 'There are many different projects in this one project'.

Approach to oxenisation

In several areas in Zambia oxenisation was introduced in the past two decades following a more or less similar approach whereby farmers were given a medium term loan to acquire a pair of oxen and a set of DAP implements (Loffler, 1994; Muswema, 1997). The loans had to be paid back in instalments over a period of two to four years. The loan schemes were supported with training and extension focusing on DAP, and sometimes farm management and credit education, but with little attention given to general animal husbandry and local, long term supply of draught animals.

The projects highlighted in this paper are characterised by a strong emphasis on reproduction and animal husbandry. Instead of allocating oxen, female animals are introduced. The advantage is that in the long run new draught animals will be available at the village level. Another benefit is that the economic value of animal draught power is likely to be higher when farmers keep cattle for uses other than draught power alone (Graaf, 1994).

Despite these advantages it must be realised that DAP in general, and this project in particular, is not an appropriate technology in all situations. The project addresses two factors mainly: shortage of capital of farmers and lack of knowledge and experience on animal husbandry and traction. For the technology to be beneficially used the environment must be supportive: economically (availability of markets and efficient input supply) and institutionally (veterinary, extension and equipment repair services available). Farmers who are new to cattle keeping and DAP need a critical learning period during which they get familiar with the technology gradually (Fischer, 1994). Both the farmers and the project initiators must be ready to make available enough time for learning.

Credit

These projects represent an alternative form of rural credit. Farmers are given access to a loan in kind and pay back the loan in kind. Although the role of money in the project is limited, availability of cash from the farmers is a must to ensure that the necessary veterinary and other requirements to practice good animal husbandry are in place. The farmer training therefore includes attention to the best way, in the given circumstances, to mobilise cash when it is needed. This approach, whereby farmers have to have cash available for managing animals, but not for acquiring them, is an answer to a constraint which Pearson and Smith (1994) describe as follows: 'A further complication is the cost of obtaining the draught animals and implements. This can restrict the amount of additional money that farmers may be able or willing to spend on animal management.'

This type of credit-in-kind appears easier and cheaper to administer than credit, which has to be paid back in cash instalments. Transactions and entries are less and mostly local. A full comparison with commercial credit cannot be made, because the objectives of the cattle projects do not include financial sustainability of the institution providing the credit. From this point of view the projects provide subsidised credit.

At the moment credit facilities available to smallholder farmers in Zambia are minimal. This can, partly, be explained against the background of massive rural credit default in the past as a result of mismanagement and political interference. The attitude of farmers to consider credit as a handout from the government, which does not need to be paid back, has not died out. This clearly forms a major risk for any project that involves loans.

Three factors may reduce this risk in the case of these cattle projects. First of all, the emphasis on community involvement helps to exert pressure on the recipients of animals to pay back as per schedule in order for other members of the community to benefit. The second factor is the emphasis on farmer selection. The project does not aim at satisfying a large number of farmers in a short period of time, but instead concentrates on starting with a small number of well selected households which have the potential to comply with the project conditions. Thirdly, farmers may hold a different perception of this type of in-kind credit. Under the current circumstances, the most risky venture with regard to securing repayment seems to be seasonal credit for fertiliser which has to be paid back in cash or crop produce. Several NGOs have introduced another type of in-kind credit, namely seed loans. In most cases these in-kind seed loans are part of a seed multiplication project whereby better varieties are introduced and multiplied. The seed growers usually repay in kind twice the amount of

seed, which was initially received. Experiences with in-kind seed loan repayment are generally positive.

The livestock sector

Smallholder agricultural development benefits from effective integration of crops and livestock. DAP is a typical example of a technology acting at the interface of the two sectors. Agricultural services in Zambia, notably extension and credit, have been biased towards crop production. This is reason for more input in the livestock sector. In addition, the possibility that interventions in the livestock sector also benefit crop production cannot be ruled out. In this regard Mano (1997) remarks, with special reference to the Southern Province, that there is '...considerable 'synergy' between cattle ownership and maize production, in terms of scale, cost and of yield. This suggests that money wisely spent on animal health might be more effective in promoting cost effective maize production (including the use of chemical fertiliser) as money spent on supplying fertiliser *per se*'. The community based cattle projects can be seen as a livestock intervention aimed at enhancing crop production.

The prevalence of cattle disease, the high costs of disease control and the deficiencies in veterinary services are a continuous risk to the projects. This explains the strong emphasis on adequate disease prevention and control. The projects are not viable, if the farmers do not manage to implement cost-effective disease, especially tick control. Fortunately, the situation in some of the project areas has improved with the introduction of affordable vaccinations against corridor disease.

Emphasis in these projects is on draught power. The same approach can be used for livestock projects with an emphasis on introducing better cattle breeds and/or restocking.

Community issues

The projects are a way to strengthen the community with an asset which people themselves can sustain and enlarge. Community management and ownership hinge on the ability of the project initiators to select the right participants, using community channels and to mobilise among the participants a sense of responsibility for the project from the very beginning. This means, amongst other, that in the first two years project staff have to spend much time in the area for meetings, training and monitoring. When the first animals have been allocated regular checks, i.e. at least twice per week, on their condition and the way farmers manage them are necessary.

Both the project initiators and the farmers have to accept that the approach is long term. The activity yields no quick gains, unlike, for instance, the

application of fertiliser. The farmers have to invest time, labour and money before they qualify to receive animals. The pay-back period, hence the period before new farmers receive animals, is not less than a year, and much longer in the case of repayment of weaned calves which have been passed on. The long-term approach does not always coincide with the pressure felt by project implementers to produce tangible results within a short-term period, e.g. two to three years. In these cases it is necessary to ensure that all interested parties, including supervising departments and donors, are clear and agree on the long-term strategy. It is also necessary that among the project initiators there is at least one organisation which can work with communities on a long term basis, in this case HPI.

The experience of staff in the SAMeP/HPI pilot projects is that their input is paid back in terms of job fulfilment arising from the realisation of having contributed to an activity that, after a period of time,

makes a tangible difference in the life of resource poor farmers. One staff member in Monze remarked that it is particularly satisfying to notice that 'people are teachable' and that they can contribute to their own development, in contrast to perceptions about farmers' indifference and resistance to change.

The cattle projects can be a suitable activity to fuse into existing community based projects, which encountered needs with regard to farm power, but which may not have paid attention yet to livestock or agriculture. Examples are primary health care projects, irrigation or forestry projects and development education projects as managed by some churches. The opposite is also possible, i.e. an existing community based cattle project can be a good entry point for other activities. The SAMeP/HPI projects for example have been linked up with conservation tillage activities.

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