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Development in Practice

Publication details, including instructions for authors and subscription information:
<http://www.informaworld.com/smpp/title~content=t713412875>

Practical Notes

Online Publication Date: 01 February 2003

To cite this Article: (2003) 'Practical Notes', Development in Practice, 13:1, 83 - 115

To link to this article: DOI: 10.1080/0961452022000038008

URL: <http://dx.doi.org/10.1080/0961452022000038008>

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Practical Notes

Facilitating change: the role of animators

Isabel Carter

Introduction

Twenty members of Buluba Youth Group assembled under the tree near Isakwa's house one morning near Iganga in Uganda to meet with two researchers. In his mid-40s, Isakwa was a church leader and a quiet, organised facilitator. The group was eager to explain to the researchers how their group came together and to discuss the work it did. The group had formed six years earlier, largely through the encouragement of Isakwa, who was very committed to improving life in his community and in providing sufficient interest to retain young people within the area. He had received a couple of years of secondary schooling and was literate in English. His official title in the group was that of Adviser, and it was apparent that he played a key role in providing new ideas, support, and coordination.

Those who joined the group rented land and grew vegetables collectively, but they had little outside contact with NGOs or extension agents and relied mostly on their own experience and newsletters for new ideas on agriculture. However, at one point Isakwa persuaded the government extension agent to run a three-day seminar on 'self-reliance' in agriculture that was open to all community members. The group had many plans for the future, including the building of a village community centre, and its members

were in the process of buying roofing sheets with money they had raised from the sale of vegetables. The group appeared unified and relaxed.

Let us now consider why it is that some people seem to have extraordinary capacity and enthusiasm to carry out their work, or an ability to make things happen. Participatory planning does not leave behind a community of people all equally able to act on and implement agreed change. The most vocal or powerful members of a community are not necessarily those who ensure that positive changes take place. All the best training and opportunities do not guarantee an output of motivated people able to work to full capacity for the benefit of others. Some people just naturally seem to be more effective and supportive than others.

Though Isakwa was an exceptional individual, it emerged that many other groups in the community relied on similar personalities. Who were these individuals, so critical in providing the necessary support to promote and implement changes aimed at improving the overall quality of life of the community?

The research process

Participatory research was carried out with 75 groups of farmers in Uganda and Ghana to explore their views and priorities concerning agricultural information. In particular, the research sought to investigate the ways in which farmers identified new ideas and to find out how these ideas were shared, modified, and sometimes implemented within a group or the wider community.

Meetings were held with well-established, autonomous groups of farmers in a number

of localities. Groups were selected on the basis of information from local organisations, government officials, and church bodies. The selection criteria specified that they should have been in existence for at least three years and should function independently. The research used both qualitative and quantitative methods to gather data from 32 farmer groups in Uganda and 43 in Ghana.

During field visits in the early stages of the research, a number of individuals like Isakwa were identified. They were often involved in the creation of groups, and were among the first to try out new ideas. More importantly, they 'made things happen'. They saw things through and then supported others to do the same. In our research these special individuals were given the name of 'animators'. Animators were not originally included as part of the research mainly because their key role as group leaders had not been anticipated. However, their presence and impact were such that the research process was quickly modified to examine their role. The term 'animator' was selected after conducting a considerable search in the literature. *Animation rurale* was the term used in the former French colonies for community development, and the term *animateur* is still used for trainers involved with motivating people. In Latin America, an equivalent term might be *promotor*. Friedmann (1992:124) defines the verb *animate* as 'blow[ing] the breath of life into the soul of the community and mov[ing] it to appropriate action, to spark endogenous change from within'.

During participatory meetings and research exercises with farmer members, the presence or absence of animators within any given group could easily be identified after a short period of observing group rapport and discussion and from questions about the group's background and operating practices. Animators revealed a keen interest in new ideas and in any experiences or contacts brought by outsiders. But even though they were often at the centre of lively discussion, they rarely dominated the conversation.

To avoid creating a bias in the research project by drawing attention to the role of animators, group members were not openly asked about them. However, every attempt was made to find out as much about them as possible in a discreet way. Informal questioning sought to establish their work and educational background, their motivation, and their role within the group.

The animators observed all came from within the community, but typically had experienced more time living outside than other members had. They were frequently among the better educated and the more literate members of the group and appeared to have a slightly above-average income, judging by their clothing, household, and farm situations. They were typically in their early 40s, but their age could vary considerably—from 23 to 72—indicating that their role did not necessarily develop from experience but was more likely to be an innate characteristic.

Two thirds of the groups visited had just one animator, while roughly the other third had two or more animators. Two groups had none. Although the majority of the groups we studied were all female or mostly female, there were more male (53 per cent) than female (42 per cent) animators, while 5 per cent of groups had both male and female animators. There were several examples of the same animator assisting with two or three groups within his or her geographical locality.

The role of animators

As part of the research meetings and exercises, an analysis of the strengths, weaknesses, opportunities, and threats within groups was undertaken. As part of this analysis, the role of the animator within the group was critically examined, based on information gained through interviews, exercises, and observations of their relationship with others in the group.

In three groups (4 per cent), animators were observed to be 'carrying' the whole

group. However, in the majority of groups, animators were observed to play either a major (35 per cent) or an important (44 per cent) role in sustaining a group. These findings and observations indicate that animators exhibit leadership qualities by working *with* people, not through exerting power *over* them. Their concerns appeared to be more with building up relationships, confidence, and morale within a group. Only in two cases did there appear to be no animator: in one group, it turned out that the animator (who had initiated the group) had moved away from the area the previous year, while the other group exhibited little unity and progress.

Animators who played an official role within their group were most commonly the designated Chairperson (27 per cent) or Secretary (23 per cent). Animators who had an unofficial role were called advisers, organisers, trainers, founders, or ordinary members.

Other viewpoints

What the most effective process for introducing information (which may encourage people living in poverty to begin to take more effective control of their lives and seek a more equitable share of local resources) may be is a key subject of debate among those seeking to promote sustainable development. Thus far, the role of animators in facilitating change has been largely ignored in the literature—despite their involvement in encouraging and supporting small groups.

Friedmann (1992) referred to these individuals as ‘change agents’ and described their role in animating their communities. Though his definition of the term ‘animator’ was originally meant to refer to the work of outside change agents, it is a good description of the work of internal innovators. These are people who are enthusiastic, open to new ideas, and able to motivate and inspire others.

Zivetz (1990:179) is another of the few scholars who have made reference to the empowering role of animators. As he puts it:

[s]ustainable development typically relies much more on the charisma and leadership capacity of local individuals and on their ability to mobilise the resources of a community and work the system around them for the benefit of that community, than on a well designed development project.

On the basis of his experience in West Africa, Zivetz comments that the majority of animators have a dual relationship with the communities they come from: they are at once a driving force within the community as well as ‘outsiders’ in terms of their previous experience and exposure. Their horizons may have been widened through exposure to outside influences, as confirmed by our own research findings.

Among others who have written about animators, Garforth (1994:64) notes the existence of ‘key individuals’ among members of Rural People’s Organisations (RPOs) in Thailand ‘whose vision, enthusiasm and commitment to the RPO had been conveyed to others and which continued to sustain the organisation’. Finally, Mercoiret (1997) uses the term ‘leaders’ for such people and comments on their role in peasant organisations, which is widespread in some franco-phone countries in Africa and Asia. Her choice of label may reflect the fact that the term ‘animateur’ has different connotations in such countries.

Case studies of animators

When we asked animators about their motivations as part of our research, they often replied that they considered it their religious responsibility to help and encourage others. The following profiles give an indication of the characteristics of several animators and of the circumstances in which they live and work.

Peace Amesu was one of two animators observed in the Dzigbodi Women's Group in Ho in the Volta Region of Ghana. She was in her mid-50s and had the official title of 'Organiser' within the 20-member group. An NGO (The 31st December Women's Movement) had encouraged the formation of a community forestry group in 1992 with about 50 members. However, this large group proved unwieldy and various members drifted away. Peace encouraged the formation of a smaller, more committed group of women from among the members of the first group. Peace's husband worked for the Forestry Department elsewhere in Ghana. She was a farmer with eight children and a voluntary kindergarten teacher.

The group benefited from four acres of land given to them by the Chief. They collectively grew cassava and soybeans as cash-crops. Many of the members of the group were also successful traders and stored maize in quantity to resell when prices were high. Peace was a quiet and efficient organiser. The group was close and confident of its potential. The women had raised considerable group funds, some of which had been used to help build a community kindergarten building.

Mrs Robina Mandali was the Secretary of the Buremba Women's Group near Mbarara, South West Uganda, which was formed in 1993. She was one of two animators noted among its 20 members. Robina was about 40 years old and had completed four years of secondary school. In addition to her voluntary role in the group, she was trained as an adult literacy instructor and a women's health adviser (encouraging women in isolated areas to attend antenatal clinics), and she was training to become a teacher at the nearby Kakoba Teacher Training College. Her English was good and she was a sensitive trainer.

Marcel Naamwanuru was the animator and founder member of the Bikyiteng Bullock Farmers in Hamile, Northern Ghana. At nearly 50, he was a keen and enthusiastic farmer. He completed five years of primary

education and had spent most of his life farming, though he had migrated to the goldmining area of Obuasi to work for a while. The group began in 1993 after a nearby NGO, Nandom Agricultural Project (NAP), persuaded Marcel to share his enthusiasm for bullock farming. The aims of the group were to promote bullock farming in their area and to support each other as farmers. Training inputs from NAP included improved animal husbandry, fodder crops, and bullock training. Members produced and marketed some crops cooperatively to raise funds for the group. Initially only two members owned bullocks, but by the time we visited, six members and a further three local farmers (not group members) owned their own bullocks. Marcel had the title of Patron within the group.

Mrs Jocylene Bitarabehe was the founder member and Chairwoman of the Ihimbi Women's Group in Kabale, South West Uganda. At the time she began the group in 1991 Jocylene was about 50 years old and had no formal education. Her husband had been the Medical Officer in Kabale in Kenya and had returned to his home area after he retired about 10 years earlier. With no agricultural training, but a relatively financially secure personal situation, Jocylene was a confident businesswoman willing to experiment and try out new ventures. The group met once a week to work together and learn. It was a relaxed, unified, and confident group, and the women enjoyed each other's company and the progress they had achieved. Together they had implemented various methods of sustainable agriculture, alley cropping, and soil fertility. They raised poultry layers as a group and managed a large tree nursery, for which they had developed a good market for their tree seedlings. Jocylene was dynamic and deeply committed to the group's well-being and future plans. Though large (31 members), the group did not consider splitting into smaller groups because all members felt very close and worked well together. The group also had to

turn down numerous requests from other women interested in joining it.

Openness to new ideas

In general, animators play a key role in channelling information. The animators we met during our research had frequently used their initiative to write and request information. Moemeka (1990) talks of the common practice of 'You buy, I read for the group', whereby those who can read are trusted and respected people within a group, engendering reassurance and facilitating acceptance of new ideas. By virtue both of their respected position and their (often above-average) literacy, animators are often 'people who read for the group'. Focusing on such animators can be a crucial means of enhancing the flow of information and ideas.

Rogers' (1995) definitive work on the diffusion of innovative ideas, first published in 1962, categorises people in terms of their receptiveness to such ideas. Though the concept of 'information flow' is meant to imply a more active involvement than the passive reception of new ideas, our own research findings reveal a considerable overlap. Rogers (1995) estimated that *innovators* make up 2.5 per cent of any given population. Innovators are individuals who are perceived by others as being on the fringes of the community, often distant or slightly odd, and so they tend to be isolated. As a result, innovators are seldom group members.

Rogers referred to individuals who are readily open to new ideas as 'early adopters' and estimated that they comprise 13.5 per cent of a population: most animators would fall into this category, by virtue of their openness to new ideas. Carmen (1990) uses the term 'opinion leaders' for such people. They observe the reactions of both innovators and traditionalists to new ideas and implement change when they judge it worthwhile. Opinion leaders tend to be held in considerable esteem by others in the community and can prove influential in giving others confidence to follow their example.

Need for further research

This research involved a 'snapshot' picture of established groups, without investigating whether group dynamics and the roles played by animators vary over time. It may well be that both change, depending on the one hand on the animator's own personality and traits and on the other on the changing needs of a group. Studies of group dynamics do not highlight the role of a typical animator but rather indicate a spectrum of roles an animator might play, namely as initiator, information seeker, energiser, or encourager. In all cases, animators exercise a quiet and dependable authority and play a central role in facilitating the exchange of information. All these roles may change over time, and this dynamism is a topic that deserves further research.

Such research should, however, consider the inherent dangers in 'labelling' people as animators. To begin with, within a group, their role is often dependent on a lack of official status. Secondly, the individuals concerned may suddenly begin to seek more recognition for their supportive role. Thus, the act of labelling could have detrimental effects on the effectiveness of their role in the future.

A way forward

The key role that animators play in promoting and sustaining innovative thinking and action needs wider acknowledgement and support. Although one obvious way to support them would be to provide them with training and information, it is essential to remember that their success derives in large part from the very fact that others see them as an integral part of the group and community. Any form of support that is directly focused on them may change this dynamic. Interventions which alter the delicate social balance of groups may result in the loss of what is, in essence, genuine participation in agricultural development—an enviable and transient factor much sought after by devel-

opment agencies. Attempts to identify, resource, and train animators and subsequently to employ them as NGO staff in order to train other groups may no doubt be appealing to both the NGO and the animator, but this may remove the key source of initiative from within a group. If they are perceived to receive special attention, training, or financial rewards for their work, the result might be the widening of a gulf between them and other members of the community, threatening the whole basis of their legitimacy and their effectiveness.

Support (including printed information, access to workshops and training, and utilisation of members for training other groups) should therefore be aimed at the group as a whole, with the tacit acknowledgement that animators will generally be the ones who can best use and extend this support (Carter 1999). Group visits to demonstration farms, research units, or training sessions could provide excellent opportunities to stimulate co-learning, as they allow all members to observe innovations together. This is firmly endorsed by the findings of research that Croxton and Murwira (1997) carried out in Zimbabwe.

The potential role of animators within farmer groups needs to be properly understood. Their role appears to be a key catalyst in facilitating the flow of new ideas and information. In addition, the mutual trust established among members of successful farmer groups engenders an openness to innovation and to experimentation with new techniques, allowing for a multiplier effect to develop beyond that of simple farmer-to-farmer sharing of information. Written materials could be reproduced for collective use in a way that stimulates discussion and co-learning. Extension staff and development workers need to have a better understanding of the nuances of group dynamics, and must work towards building a solid rapport with animators, both women and men.

Supporting animators through interventions that do not seek to disturb group dynamics or draw attention to their role within

a group could prove to be an effective way of encouraging pro-development change, and, in turn, lead to improved well-being.

References

- Carmen, R.** (1990) *Communication, Education and Empowerment*, Manchester Monographs, Manchester: University of Manchester.
- Carter, I.** (1999) *Locally Generated Printed Materials in Agriculture; Experience from Uganda and Ghana*, Education Paper Serial no. 31, London: DFID.
- Croxton, S. and K. Murwira** (1997) *Building Linkages for Livelihood Security in Chivi, Zimbabwe*, IIED Gatekeeper Series no. 70, London: IIED.
- Friedmann, J.** (1992) *Empowerment: The Politics of Alternative Development*, Oxford: Blackwell.
- Garforth, C.** (1994) *The Role of RPOs in Agricultural Development in Northern Thailand*, Report to ESCOR Committee on Research Project R4300, Reading: University of Reading.
- Mercoiret, M. R.** (1997) 'Peasant organisations in sub-Saharan Africa: Some reflections on progress to date', *Rural Extension Bulletin* 7:35–42.
- Moemeka, A. A.** (1990) 'The mass media, communication and rural dwellers: Towards the effectiveness of development messages', in L. Oso and L. Adebayo (eds.) *Communication and Rural Development in Nigeria*, Nigeria: Millennium Investments Ltd.
- Rogers, E. M.** (1995) *Diffusion of Innovations*, 4th edn, New York, NY: Free Press.
- Zivetz, L.** (1990) *Project Identification, Design and Appraisal*, Canberra: ACFOA.

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Towards human development: impact assessment of a micro-development intervention in western India

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This paper seeks to understand the human development potential of a lift-irrigation scheme introduced by a development NGO in western India. In particular, it focuses on the ways in which this micro-level intervention has been able to create conditions for enlarging the choices of the poor. The impact of the intervention, captured at the farm and household levels through both conventional and PRA data, is shown to have enhanced the productivity of the land, resulting in improved food security, higher employment, and a significant reduction in distress migration, especially among women. The success of the intervention is attributed to its appropriateness to local needs and to the creation of a suitable institutional mechanism. Given its demonstrated potential, the paper emphasises the need for replicating such interventions more widely.

Introduction

As the *Human Development Report 1996* (UNDP 1996) states, 'human development is the end—economic growth is a means'. This

argument for 'humanising' development is a response to the failure of earlier efforts to eradicate mass poverty and misery. The assumption that macro-development efforts would automatically trickle down and help improve the quality of life of those living in poverty at the bottom is now seen to be flawed (Gupta 2000). The consequence of this failure is the continuing reality of mass poverty as manifested in undernourishment, illiteracy, unemployment, distress migration, etc. It is in this context that the exhortation of UNDP and others (Ranis et al. 2000) to make the attainment of *human* development the priority goal of all development efforts assumes particular importance.

Human development has been defined as the enlargement of people's choices. It is only when a person has wider choices that he or she can lead a decent, dignified, and healthy life. Besides accelerating economic growth, the widening of such choices for the poor requires clearly focused interventions which can directly enhance their productive capabilities. In this respect, a major role is envisaged for NGOs, which are seen to be able to reach out to the poor and the marginalised who are largely left out of the macro-economic process. There is now well-documented evidence of targeted interventions that have made a significant impact on improving the livelihoods of the poor and creating conditions necessary for the attainment of human development (Krishna et al. 1998).

Objectives and methodology

This paper seeks to understand the potential for human development of a micro intervention made by a development NGO in a region of western India characterised by widespread distress migration. Specifically, it aims to assess the impact of a water-harvesting project by the Sadguru Water and Development Foundation (SWDF) in the village of Mahudi in Gujarat State. SWDF is a non-profit organisation that has been working since 1974 in the area of harnessing and developing natural resources such as

land, water, and forests to bring about sustainable improvements in the livelihoods of the rural poor. To do this, SWDF supports interventions such as lift-irrigation schemes, the construction of checkdams, watershed development, and agroforestry and joint forest management in the villages spread over four contiguous districts in the states of Gujarat, Madhya Pradesh, and Rajasthan. SWDF tries to improve the capacity of the local resource base to support livelihoods in a sustainable way (Singh and Gupta 1997). It thus explicitly aims to arrest the phenomenon of rural–urban distress migration in this area. In all its work, SWDF tries to create popular institutions for managing the programmes in order to make them both participatory and sustainable. By 1999, SWDF had implemented its programmes in about 350 villages and created some 279 village institutions (SWDF 1999). SWDF receives funding from the government of India and from various donor agencies such as the Aga Khan Foundation (AKF), the European Commission (EC), the Norwegian Agency for Development Cooperation (NORAD), and the Ford Foundation.

SWDF has made multiple interventions in the village of Mahudi since 1989, including the construction of a checkdam across the local river, watershed development work, and agroforestry. The intervention chosen for this case study is the water-harvesting project, conducted in 1993. The paper assesses the impact of this scheme on agricultural development in the area and the subsequent effects on various dimensions of the community's livelihood, including the decline in distress migration.

Overall, the paper seeks to capture the ultimate impact of the intervention on human development by enlarging choices for people to shape their own destiny. While the impact on agricultural development is illustrated by comparing the situation before and after the intervention, that of other aspects of local livelihoods, such as seasonal migration, is assessed by comparing the households in the project and the non-project area in the

village. The data for this analysis are derived both from monitoring information collected by SWDF in Mahudi (based on conventional and Participatory Rural Appraisal (PRA) methods)¹ and from a larger research study (Shylendra and Rani 1999) into occupational diversification and issues concerning the sustainability of rural livelihoods. The qualitative insights gained by the authors through their own extensive interactions with village households are also used.

Mahudi village: a brief profile

Mahudi is located in the Jhalod *taluka* of Dahod district and is typical of the villages dotting the region. It is almost exclusively inhabited by *Bhils*, the indigenous people in the area. Mahudi lies in a semi-arid region that experiences low and uncertain rainfall, averaging 989 mm per year. Local agriculture is largely rain fed, with only about 20 per cent of agricultural land being irrigated by wells or canals or by the lift-irrigation system built by SWDF. The total area of the village is 794 ha, of which about 58 per cent is arable and about one third is under degraded forest cover. In 1994 the village was inhabited by 528 households with an estimated total population of 3470—a relatively high population density at 436 persons per km². According to the 1991 census, adult literacy was very low (25.4 per cent). Agriculture is the main occupation, with all the *Bhil* households owning some land, though the average size of landholdings is only about 1 ha. Another major feature is the prevalence of large-scale seasonal migration due to lack of food security and high under-employment, with nearly 75 per cent of households reporting it in 1994 (Shylendra and Thomas 1995).

Development intervention

The SWDF intervention in Mahudi started in 1989 with the implementation of the agroforestry programme. SWDF believes that in dry areas it is only through providing access

to water that one can make a discernible impact on local livelihoods. With local people, SWDF initially assessed the potential for water harvesting, and this led to a scheme to build a checkdam across the river and install a lift-irrigation system to irrigate the adjoining land. The checkdam was constructed in 1993 at a cost of Rs9.67 lakh (about US\$21,488 at current prices). A lift-irrigation system (costing another US\$21,066) with a 40 hp pumping capacity and a 2-km pipeline was put in place with a gross command area of 63.5 ha. A lift-irrigation farmers' cooperative was started for managing the irrigation system, and by 1997 it had 64 members. An 11-member executive committee looks after the maintenance of the physical structures, distribution of water, and the collection of water charges from the members. In order to sustain itself, the cooperative has stopped charging for water on an acreage basis as it did initially, and now charges on an hourly basis. The lift-irrigation system covers about 12 per cent of all households in Mahudi and irrigates about 11 per cent of the gross cultivated area in the village. However, for the households coming under the command area of the lift-irrigation system, about 66 per cent of the gross cultivated area is irrigated.

Impact of the intervention

Framework of analysis

For the farmers who depend on rain-fed agriculture, the introduction of a reliable irrigation system can bring about perceptible changes both in their agricultural conditions and in their livelihoods. A total dependence on rainfall creates uncertainty not only in terms of production, which in turn endangers household food security, but also in terms of the severe constraints it imposes on enhancing the productivity of the land by adopting new technology. The problem is greater still for households with very small landholdings. The uncertainty of agricultural production coupled with low yields forces them to look for alternative ways of earning a living and

achieving food security, including seasonal migration (KRIBP 1997). A development intervention that seeks to overcome these basic constraints could therefore have a very significant impact.

As seen in the framework of analysis depicted in Figure 1, the impact of the SWDF intervention in water harvesting in Mahudi can be visualised in three major ways. The first is the direct effect of the intervention on the agricultural conditions in terms of changes or improvements in cropping intensity, cropping patterns, and productivity. The second type of impact concerns changes in the pattern of seasonal migration due to improved agricultural conditions and food security. The third type is in the indirect benefits of the other two changes on the living conditions and the quality of life of these households, ultimately leading to a higher level of human development. It is important to recognise that the SWDF intervention in Mahudi had been in place for only about six years at the time of the present study. A much longer time period is required for the households to realise all the direct and indirect benefits of the intervention. Some of the indirect changes, particularly on the quality of life, therefore have to be taken as indicative of future potential.

The three major types of impacts of the SWDF intervention are analysed in the following sections.

Impact on agriculture

The major impact of the lift-irrigation system is seen in the agricultural conditions of the project area. Before the intervention, farmers were raising crops only during two seasons, *kharrif* (rainy season) and *rabi* (winter). However, because of the dependence on rainfall, crop failures were quite common. Now, as a result of the assured availability of water, there is an additional cropping season. Moreover, farmers are now also guaranteed crops during *kharrif* and *rabi* seasons.

The increase in the number of seasons is also accompanied by changes in the cropping

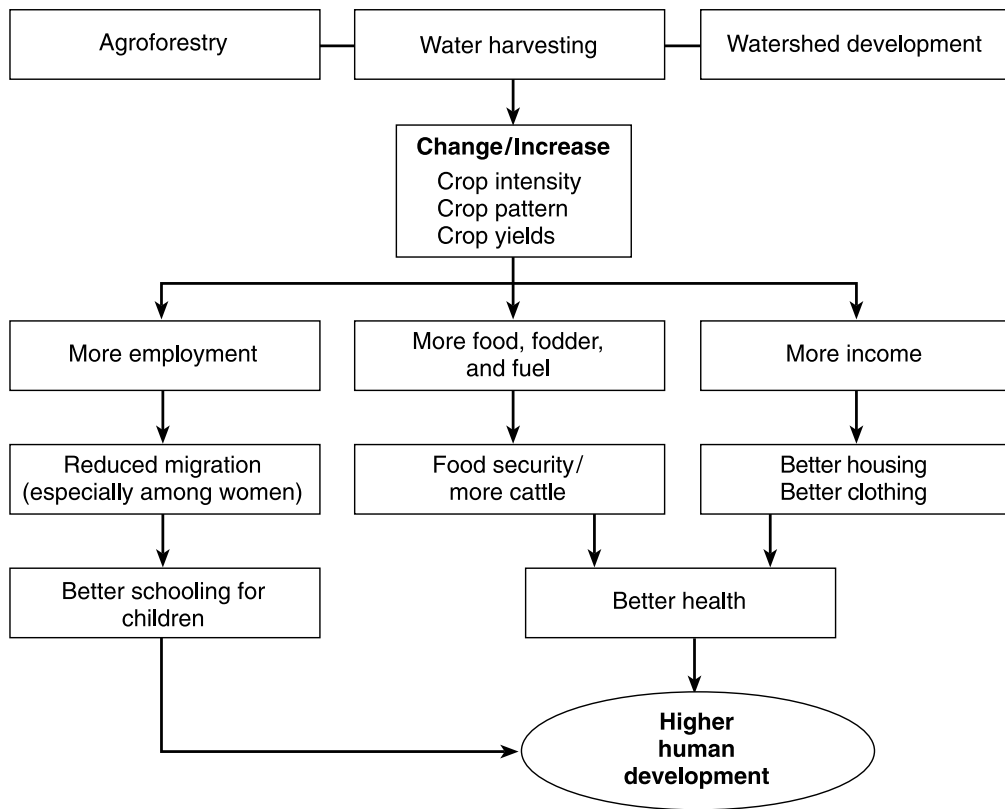


Figure 1: Framework for analysing the impact of the NGO's development intervention

pattern. While some traditional crops are disappearing, farmers are taking advantage of the changed production conditions to produce new crops. For instance, pulses like redgram in *kharrif* and chickpea in *rabi* are giving way to maize and wheat. Redgram has now almost completely disappeared from the crop mix. Greengram and groundnut have been introduced during the additional summer season, and a few enterprising farmers have introduced small plots of potential cash-crops like tomatoes and chillies.

The most significant aspect of the impact on agriculture is the increase in the yields of various crops which farmers claim has taken place during both the *kharrif* and especially the *rabi* season. The yields of wheat and chickpea have increased more than threefold since the intervention, and the yield of maize

grown during the *rabi* season has also doubled. These changes are attributed to the combined result of the availability of water, a higher use of chemical fertilisers, and the adoption of improved practices of cultivation. The overall effect of the increased cropping intensity and higher yields is the increase in total agricultural output in the project area which has, in turn, changed the situation from one of food scarcity to increased food security and surplus. Almost all the households in the project area have shifted from being net buyers to net sellers of food. The increased food security is evident from the fact that almost none of the households in the project area currently depend on the public food distribution system.

At the same time, there is now more fodder for the cattle due to higher biomass

production. The agroforestry scheme introduced in 1989 was also boosted by the availability of water. The project area now has a good variety of trees including eucalyptus on farmers' wasteland and bunds. Most farmers report that the sale of saplings has also become a supplementary source of income. Besides, wood and timber are now readily available for domestic needs including fuel wood and house construction.

Impact on distress migration

One of the objectives of SWDF is to arrest the prevalence of distress migration in the region, the extent of which is evident not only from the fact that over 75 per cent of the village households resort to seasonal migration, but also that in over two thirds of these households the women also migrate (Shylendra and Rani 1999). The migrants go mainly to the urban areas of Gujarat in search of unskilled construction work. While this earns them enough to meet basic household needs, migration has many negative features. First, migrant labourers face appalling working and living conditions, leaving them worse off in terms of quality of life. Second, when young children accompany their mothers during migration, this creates a bottleneck for their enrolment in the village school.

Evidence from a larger study (Shylendra and Rani 1999) suggests that SWDF's intervention has helped to reverse the trend of distress migration in the project area.² For instance, not only has female migration dropped dramatically, but also the intensity of male migration has significantly decreased: while 65 per cent of the migrating households also reported female migration in the non-project area of Mahudi during 1996–1997, only about 12 per cent of such households reported it in the project area. Again, while the average number of female migrants per household was 1.1 in the non-project area, it was only 0.2 in the project area during the same period. Further, while 58 per cent of migrants from the non-project

area were women, women represented only 11 per cent of all migrants from the project area—showing a significant reduction in female migration following the SWDF intervention. The reasons for this are twofold. First, because of the increase in the cropping intensity due to the additional season, there is now enough employment available locally for the female labour force. Second, due to increased food security and higher incomes, women no longer experience the pressing need to migrate in order to supplement household income. Since young children generally accompany their mothers, female migration tends to mean that the total number of people migrating from a single household is higher. The converse is also true, so that when fewer women migrate, the total number of migrants also declines. For instance, migrants (without children) represented only 22 per cent of the total population in the project area, compared to 36.5 per cent in the non-project area (Shylendra and Rani 1999).³

Although the impact of the SWDF intervention is much lower on male than on female migration, certain positive trends can be discerned. Overall, in the project area about 90 per cent of households previously migrated, a figure that has dropped to about 72 per cent; in the non-project area, the figure remains at 87 per cent. Further, in the project area the average number of migrating days per person per year is about 97, compared with 141 in the non-project area. This suggests that the intervention has helped to reduce the intensity of migration. These figures also have to be read in the context of increasing population and growing surplus labour in both the project and the non-project areas. In the former, the SWDF intervention has essentially nullified the impact of subsequent population growth on migration as the average number of migrants before and after the intervention remains the same (1.94) while it shows a marginal increase in the latter.

These changes are a clear indication of the success of the SWDF intervention in arresting distress migration. Though men continue

to migrate, they do so on a reduced scale. The fact that they still migrate relates to the fact that despite the increase in cropping intensity and local employment, the small landholdings provide only limited scope to absorb surplus labour. However, the men no longer migrate out of severe compulsion but more because of a desire to earn additional income by making use of the available surplus labour. As a result, not only are the duration and intensity of male migration lower, but the nature of migration itself is different. Even if the men decide not to migrate, household food security is no longer a threat. Today, the migration that still takes place in the project area is more out of choice than out of necessity.

Other qualitative changes

The type of intervention made in Mahudi does seem to have the potential to lead to a higher level of human development in terms of enlarging choice. Some of the post-intervention changes in Mahudi both point to such potential and were identified by those who had been influenced by the intervention in a positive way. The qualitative insights provided in focus group discussions are a good indication of how things are unfolding.

The first major qualitative change is the end of food deprivation due to increased food security. Previously, major efforts and resources were spent on attaining minimum food security. Even the women were forced to migrate under the most difficult conditions. The first casualty of female migration is household stability as the women carry a major burden of both farm and domestic work. The absence of female household members is felt equally by old people and young children—and even by the cattle. When children accompany their mothers during migration, their schooling suffers. Neither the children's enrolment nor their attendance in school can be guaranteed in such conditions. Villagers now admit that primary school attendance has risen significantly in the project area, something they

attribute largely to the fact that fewer women are compelled to migrate.⁴

Similarly, most households have reported an increase in cattle ownership, particularly of milk animals.⁵ The reason for such an improvement is easy to see. Not only is there more cattle fodder available as a result of higher cropping intensity and output, but also reduced migration, especially among women, makes it easier to tend to cattle at home. Thus, reduced female migration may also create an opportunity for women to diversify into animal husbandry. In other words, households now enjoy enlarged livelihood choices.

Local people also consider that housing conditions are much better now. Partly because of higher income from agriculture, supplemented by earnings from migrant labour, many households in the project area have either renovated their houses or built new ones. Almost everyone now has a *pukka* or semi-*pukka* house, which has been made possible by the easy availability of timber through the agroforestry scheme. The farmers have also claimed that because of improved food security and higher income they no longer need to mortgage their land to meet family contingencies. Rather, they themselves are now in a position to take others people's land on mortgage in order to increase their landholdings. Being able to retain and improve their own land helps generate more surplus production and also more employment, especially for the women. While all these changes imply that women have acquired a greater burden of farm labour, they feel that at least now they work for themselves whereas before they were at the mercy of city contractors or employers.

In a group discussion on the overall impact of the intervention, women and men agreed that they are now better housed, better clothed, and better equipped financially to celebrate their festivals on a grand scale. One individual aptly appraised these changes by saying *thoudu shanti chey*, meaning that there has been little peace in their lives since the intervention.

Conclusion

Assessing the impact that micro interventions might have on poverty alleviation and the promotion of human development, this study has clearly shown what the potential benefits of such an intervention might be, particularly when it truly meets local needs and is based on the reality in the field.

Such interventions in villages like Mahudi must aim both to reverse prevailing trends and also tap into the community's development potential. The intervention described above has been successful precisely because it has been able to tap local resources like land and water and improve local capacity to support sustainable livelihoods. The lift-irrigation scheme in conjunction with agroforestry activities have significantly enhanced the productivity of the land. This has resulted in improved food security, more employment, especially among women, and a reduction in distress migration. The drastic decline in female migration has in turn brought about many other improvements at the household level, leading to a better quality of life by way of better schooling and diversification in livelihood. All the positive changes occurring in the project area indicate a clear process towards greater human development in terms of enlarged choices for a community previously beset by a high degree of distress. In addition to the appropriateness of the programme and choice of activities, a major contributing factor to the programme's success has been the establishment of a suitable institutional mechanism to manage the new system. The formation of a lift-irrigation cooperative of the farmers coming under the command area to maintain and operate the lift and distribution system has made an enormous contribution to the sustainability of the programme. Through this cooperative, the farmers have been able to establish a clear collective right and also a mechanism for collective decision making, ensuring in the process an effective water-harvesting and

management system that can produce a sustainable positive impact on their livelihoods.

To conclude, the resource conditions affecting the study village are prevalent in western India (Jagawat 1999), and therefore interventions of the type discussed above are worth replicating (Balooni and Singh 1994; Patel 1998). The conditions of poverty and distress that beset large parts of the population in this region underline the need to invest in interventions that are capable of producing high social returns in the form of an improved resource base, assured food security, reduced distress migration, especially among women, and improved human development.

Acknowledgements

This paper is part of an Indo-Swiss collaborative research project called 'Rural Livelihood Systems and Sustainable Natural Resource Management in Semi-arid Areas of India' carried out at the Institute of Rural Management, Anand. The project was funded by the Swiss National Science Foundation in Zurich. The authors wish to thank Mr Harnath Jagawat, director of SWDF, for his encouragement and support. The views expressed herein are solely those of the authors and not those of the institutions to which they are affiliated.

Notes

- 1 Given the high validity of data rural people share with researchers, PRA methods have now come to be widely accepted and advocated as a good substitute for surveys in rural research (Chambers 1997).
- 2 In the larger study from which the data for this section are drawn, both a cross-sectional and an inter-temporal analysis of seasonal migration in Mahudi were carried out based on a sample of 45 households—22 from the project area and 23 from the non-project area. The sample households

were interviewed both before and after the intervention, with a gap of three years.

- 3 The difference in the ratios between the two areas would have been much larger if the child population had been included. Child migration in the project area is now almost non-existent.
- 4 According to SWDF's monitoring data, the school used to have about 30–35 students and now has 120 students. However, we feel that part of this rise could be attributed to increased population.
- 5 The average cattle holding per household shows an increase from 2.6 to 3.5 as a result of the intervention (Shylendra and Rani 1999).

References

- Balooni, K. and Katar Singh** (1994) 'Economics of Farm Forestry: A Case Study in Shankerpura Village, District Panchmahals, Gujarat', Working Paper Series No. 61, Anand: Institute of Rural Management.
- Chambers, Robert** (1997) *Rural Appraisal: Rapid, Relaxed and Participatory*, Reprint, Patna: PRAXIS.
- Gupta, S. P.** (2000) 'Trickle down theory revisited: the role of employment and poverty', *Indian Journal of Labour Economics* 43(1):25–34.
- Jagawat, Harnath** (1999) 'Revival of Rivers: An Illustrative Story of the Revival of Several Rivers and Rivulets through an Appropriate and Effective Strategy in Water Harvesting in the Tribal Regions of Western India', unpublished report, Dahod: N. M. Sadguru Water and Development Foundation.
- KRIBP** (1997) 'Key Findings of Farming Systems and Livelihood Impact Studies', unpublished report, Dahod: KRIBP.
- Krishna, Anirudh, Norman Uphoff, and Milton J. Esman** (eds.) (1998) *Reasons for Hope: Instructive Experiments in Rural Development*, New Delhi: Vistar.
- Patel, Mukesh R.** (1998) 'Trickle Down Impact of Lift Irrigation Schemes at Village Chanasar', unpublished working paper, Dahod: N. M. Sadguru Water and Development Foundation.
- Ranis, Gustav, Francis Stewart, and Alejandro Ramírez** (2000) 'Economic growth and human development', *World Development* 28(2):197–219.
- Shylendra, H. S. and Uma Rani** (1999) 'Sustainable Rural Livelihood in the Context of Growing Occupational Diversification and Rural–Urban Linkages', unpublished report, Anand: Institute of Rural Management.
- Shylendra, H. S. and P. Thomas** (1995) 'Non-farm employment: nature, magnitude and determinants in a semi-arid village of western India', *Indian Journal of Agricultural Economics* 50(3):410–416.
- Singh, Katar and K. K. Gupta** (1997) *The Sadguru Model of Community Based Natural Resources Management*, Occasional Publication 14, Anand: IRMA.
- SWDF** (1999) Annual Report for the Year Ending 31 March 1999, Dahod: N. M. Sadguru Water and Development Foundation.
- UNDP** (1996) Human Development Report 1996: Economic Growth and human development, Oxford: OUP.

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Land acquisition, employment loss, and women's participation in income generation in the coastal belt of South Gujarat

Akash Acharya

This article analyses the industrialisation process in Hazira, situated on the coastal belt of South Gujarat in India. The author sets out to gauge the impact of industrial development on land distribution, on the employment opportunities of local people, and on the environment. The views of different stakeholders—villagers and industrialists—are presented. The status of women is examined, in particular the kinds of occupations women are involved in, their skills and earnings, the time they spend on economic and domestic activities, and the attitude of male family members towards their work.

Hazira: the industrial hub of Gujarat

Hazira, which is situated near Surat on the coastal belt of South Gujarat, is an important industrial centre in India and ranks high on the industrial map of Gujarat. International companies such as ONGC, Kribhco, Reliance, L&T, and Essar have already set up sophisticated plants there, and more are planning to do so in the future. In 1985,

under the 1976 Gujarat Town Planning and Urban Development Act, the Hazira Development Authority (HADA) was formed with the aim of planning and developing this region. HADA has been instrumental in fostering industrial growth in the area, with production focused on chemical fertilisers, polymers, steel, and power. To meet the cargo needs of these plants, an import terminal is also planned.

Land acquisitions: the villagers' perspective

All these developments required large amounts of land, which was acquired from the surrounding villages under the Land Acquisition Act of 1984. Among other things, the Act allows the government to acquire any private land, for which it must pay cash compensation, and grant it to companies to promote industrial development. Under this provision, the Collector issues a public notice and a declaration in the press that a particular plot of land 'is needed' for a proposed project. The government assesses the value of the land on the basis of market price, taking into account its location, its quality and potential, the area, public development programmes in the vicinity, the nature of the project, and so on. Individual landowners can be served notices under Section 9 of the Act, which identifies details of individual holdings to be acquired by the government (Patel 1994:43).

The first land acquisition was carried out in 1983 by KRIBHCO, a fertiliser-producing unit. According to local people, Rs13,500 (US\$1 = approximately Rs48.25) was paid for 1 acre of land. This process continued as other industries moved in. Villagers received Rs2.5 *laks* per acre in the land acquisition that took place in the late 1980s, and most of them spent the money quickly. Villagers say that some individuals knew in advance that a land acquisition was going to take place and so purchased land cheaply and then sold it to the companies at much higher prices. However, agricultural labourers working on land

which was not in their name received no compensation, and they happen to be among the poorest people in the region.

The government's practice of acquiring land from the villagers in exchange for relatively small cash compensation has left a scar in the region. Whenever a researcher goes to these villages with a notepad in hand, villagers become suspicious, believing that she or he may be a government or company official in the process of acquiring land. As one woman I was interviewing from Hazira village said, 'I will not give you my or my husband's name. I know you will then acquire my land. I live under constant fear. Any day I will be displaced. Where will I go?' Another man from Mora village articulated the reason for such discontent as follows: 'The land that is acquired is gone forever. The compensation should be seen in this perspective. We are losing our lifetime employment.'

Land acquisition had a particularly negative impact on the population of Hazira because the main activities in these villages were agriculture and fishing. Industrial development also brought about other negative effects. Today, most of the land is no longer cultivable, either due to natural salinity or to pollution by various industries. Kantibhai Patel from Sunvali village says:

Because of industrial pollution, average rainfall has come down sharply in this area. There was a time when vegetables from these villages were admired across the state. Today the case is the other way around. Water from the well is no longer potable and land cannot be cultivated.

There is also a serious problem of iron smuck in Hazira, which villagers claim has damaged agriculture. If one cycles or drives to Hazira with the car windows open, one's shirt will be covered in black smuts. Villagers say, 'Sometimes the surrounding plants create a tremendous amount of noise. We cannot even talk at home. Moreover, the irritating smell of gas suffocates us.'

Land acquisitions: the industrial perspective

Given the villagers' hostility towards the industries, it was important for us to obtain the views of the industrialists. Of the senior officials we met, most believe that the compensation paid to the villagers was just. As one said,

Don't use the word 'land losers'. They are 'land sellers'. We have paid almost Rs.3 lakhs for an acre of land, which was saline, and of no use to villagers. We are not grabbing their land for our profits. Whatever we produce here is also of national service. Moreover, corporate houses on this belt have done a lot of philanthropic activities like running schools, supplying water through pipelines, providing health facilities through mobile vans, holding training programmes for women, fixing street lights in villages, and much more. Actually, all these activities are the responsibility of the government but still we as good corporate citizens are performing these duties. Instead of being appreciated, we draw flack from all sides. This is ridiculous.

Industry executives also justified their recruitment of labourers from other states, claiming that local labourers are lazy whereas those from Bihar, Uttar Pradesh, or Orissa are hard working. As one executive put it, 'Look, we are into business and not charity. We cannot afford to compromise on quality at any cost.'

But these migrant labourers have created many problems for local villagers. For example, in Mora, a village situated close to Reliance Complex, more than 65 per cent of the population is from outside. Migrant males have also affected the sex ratio of the village, which had dropped to 322 females per 1000 males in the 1991 census. These outsiders are single men and stay in rented *kholi*. This rental business is in full swing. One contractor from Surat has constructed

300 *kholis* that he lets. These outsiders are said to spoil the village culture; there have been cases of girls eloping with them in two villages, and people in Mora fear that prostitution has started.

A new port is planned

Gujarat has a 1669 km coastline, the longest coastal state in India. It has one major port, 11 intermediate ports, and 29 minor ports dotting its coastal boundary. The Gujarat Maritime Board (GMT) is developing certain ports, of which Hazira is one. Given the number and size of plants operating in this area and their international links, there is a need for a port here, but, as we have seen, any new industrial activity in this area is frowned upon by villagers because they think that it will add to their suffering.

In discussions about the projected port, people believe that it will destroy fishing activity in this area. Already it is claimed that one vessel (the name of the owner company was not given) has been involved in oil and gas exploration, which has killed many fish. Moreover, villagers claim that the company, which is planning a port also plans to build a staff residential colony. This will require further land acquisition. Some villagers, though divided on land sale, have approached the company, asking it about land purchase. They have also started calculating the eventual cash compensation. A villager from Hazira says 'When [the] last acquisition took place, land owners were paid around 2.5 *laks* per acre. We are certainly going to demand more than that.' Some young people welcome the port, believing that it will create direct or indirect employment for villagers. One such person told us that Hazira would be like Bombay within five years. Some older villagers, however, believe that company projects divide their community into those who support them and those who don't. They also claim that village leaders are bought by companies so they start speaking in favour of it.

Employment

The companies that acquired land also inducted one adult male from each family into a suitable job. Some of these men were subsequently laid off while a few got permanent jobs. Some villagers are hired as day labourers but preference is given to outsiders, for the reasons given by the executives to whom we spoke. Now villagers say that even agricultural labourers are brought from Jambusar (Bharuch district), who work for very low wages. We also observed that there is growing unemployment among local youth. Most young men are seen playing cards and consuming alcohol, and older men believe that they have developed an aversion to agricultural activities. Some of these young men have educational qualifications such as diplomas in technical education, and had enrolled in such courses hoping to get some employment in one of the companies—but that did not happen. Today most companies are bent on cutting costs and have put their recruitment plans on hold.

Women's economic participation

As agriculture and fishing declined, many villagers lost their main source of income. The cash compensation was naturally not sufficient to last a lifetime, and was in any case often spent on consumer goods. Local families were thus placed in a wretched position.

Women are increasingly the main breadwinners in these villages. Apart from their domestic responsibilities, women are performing a range of economic activities to support their families, of which the five main ones are growing and selling vegetables, animal husbandry and sale of milk, farm work, fishing, and working as maids in industrial townships. Other activities include selling knitted items, midwifery, teaching, or running a shop.

Women who are involved in animal husbandry get up at 2.00 a.m. for milking because the dairy vehicle comes early in the

morning to collect the milk. They are paid Rs12 per litre, and the milk is then sold at Rs17 per litre in Surat. Some women sell vegetables both locally and in Surat. For example, twice a week one woman from Sunvali village goes to the wholesale vegetable market in Surat, which is around 45 km away from her village. She travels by a private goods van that charges Rs20, but claims that she gets far less for her produce than it fetches in the retail market.

Some women work as casual labourers, whether in agricultural work or masonry. Work is not always available, but pays Rs30–40 per day.

Women are also found running tea stalls near the industrial plants as well as retail shops selling cigarettes, *bidis*, biscuits, *gutkha*, Bengals, combs, etc. Most have taken on loans from friends and relatives in order to set up these shops. As they are on heavy traffic routes, they usually get a good number of customers but cannot make much profit out of these activities.

A few women, mainly *halpatis* (farm labourers), are also involved in fishing. They find it difficult to afford fishing nets, which are priced at around Rs2000 in Surat, and so go to Daman (a coastal town 125 km away from Surat) to buy them. They never approach banks for loans since they lack collateral security.

Men seem surprisingly indifferent to women's economic activities. It was clear during our field visits that women take a far more positive approach to coping with the situation than men do.

Domestic fuel problem

Apart from trying to earn money, women also have to take care of their domestic responsibilities, which include arranging fuel for cooking and other needs. LPG cylinders, kerosene, and firewood are the principal fuels, though most women still rely on firewood. They cut wood from the nearby forest to last them for the whole year, although this is an illegal activity. Often

forest officials catch them and their sickles are impounded. To retrieve them, they have to pay a fine of Rs30, but this is the only option as they cannot afford the cost of the other fuels. Some better-off women make selective use of LPG cylinders, e.g. they use firewood to heat the bath water.

Drinking water

All villages in this area are facing a problem with drinking water. Some industrial houses have provided water facilities, free of charge, but it does not cover the entire population. Moreover, if villagers want to have water supplied via a water pipeline at home, they have to pay per foot of pipe cost. There are many, especially the *halapatis*, who cannot afford this. Consequently water has not reached all *falias* of villages. Women have to walk a few kilometres daily to fetch water from wells. These wells are mostly private and often the owners misbehave with women. As Jasuben Patel from Junagav puts it, 'He (the owner of the well) behaves rudely with me and also sometimes takes charge if the rope for fetching water is damaged.' Wells lose their water table in summer and problems are greater during this time.

The water in some of the wells has become saline in this area. As this is a coastal region, this may be due to the proximity of the sea. At the same time, industrial pollution could also be responsible, according to some villagers. They claim that water levels have gone down because of the heavy demand for water by local industries.

Education facilities

All villages in this area have at least primary schools. Industrial townships have English-medium secondary and higher secondary schools. But villagers complain that they do not accommodate children from surrounding villages—they take only their employees' children.

Villagers stress the need for a technical college. They suggest that there is a need for

technical skills because of the number of industries in the vicinity. But the college should take responsibility for placing the students because, at present, there are people in the villages who have a technical degree but are unemployed. The point is that a technical college will not generate employment unless there is cooperation between college and industry.

Health facilities

There is a pressing need for high-quality health services in all the four villages, which currently have only PHC facilities, a community health worker, private practitioners, and a mobile health van provided by a leading industrial group. But this level of provision does not meet all local health needs.

We visited a PHC facility in Sunvali village and talked with the qualified doctor in attendance. According to the doctor, nothing is charged for medication, although the villagers say that an injection costs Rs20. This facility covers 16 villages through sub-centres and a primary health unit. The doctor claims that villagers are more health conscious than before and turn up frequently for the treatment of coughs, colds, and malaria. This doctor further informed us that none of the private 'doctors' in the area hold an MBBS degree, but villagers do not understand these differences and believe that private doctors are better. Basic vaccinations (e.g. BCG and DPT) are given free of charge. A pregnant woman has to register in the third month of her pregnancy. As villagers prefer delivery in their homes, a nurse or trained midwife will tend to her, referring the patient to the civic hospital in Surat if any complications arise.

Doctors do not always attend PHCs regularly, and, despite the villagers' demands, at the time of writing nobody had been appointed to replace the previous medical practitioner on his retirement. Villagers also complain about mosquitoes and malaria due to the presence of stagnant water ponds in the vicinity.

The private doctors and midwives charge Rs30 per visit and Rs300 per delivery. The mobile unit provided by one industrial group comes twice a week and takes only Rs2, a nominal fee. There are modern medical facilities available in company colonies, but villagers say that these are not accessible to outsiders.

One hospital is situated about 10 km away from these villages, but the general impression is that it is very expensive and does not have talented doctors. Villagers prefer to go to Surat rather than be admitted there. There is a genuine demand for a hospital with surgical facilities that caters to the health needs of surrounding villages and provides affordable and high-quality services.

Our perception, on the basis of our discussions with them, is that the Hazira group villagers assume that social amenities such as health, drinking water, and education are the state's responsibility. Consequently, they would like to have quality services nearby but are reluctant to contribute towards developing them.

Other facilities

Other facilities in the Surat area include post and telegraph, transport, and communications. Since this is a semi-urban area, all these facilities are better developed than in more remote villages. We asked villagers and prominent local people (e.g. the doctor and the schoolteacher) about the problems faced by villagers and the likely solutions. Many identified the need for a drainage system and proper sanitation facilities, including pay-and-use toilets. They also expressed their concern over *Jangli Baval*, a kind of thorny plant that has blocked the road in many places and needs pruning.

Conclusion

During the industrial development process in this area, large-scale land acquisition has affected agricultural activities. Moreover, industries have failed to generate high-

quality employment for local communities and consider that they have paid sufficient cash compensation. Some have recently started schools and provided drinking water and health facilities for villagers, but these provisions are inadequate and cannot substitute for employment.

Is it the duty of the corporate sector to provide employment even if it means ignoring the quality of the work they offer? Should the analysis of costs and benefits be seen only from the viewpoint of the local community? These questions are not simple, but the industries active in the area include some of the largest and most respected corporations not only in India but also around the world. They could do a lot more than they are doing right now and also provide a model for others to emulate.

Training could be provided, especially to enable women to make better earnings. Clearly, to take up such training, working women would need a stipend to compensate for lost earnings. Without this, training is likely to benefit the more affluent who are not currently in paid work and have time to spare. If the training is related to some product (pickled foods, for instance), then marketing support will also be required, as without it women might not be able to sell their products.

There is also a possibility of starting a microcredit programme. Villagers need small amounts of money, for instance, to repair a wall in the house, to dig a well, or to purchase a cow or even a fishing net. Lack of working capital and non-ownership of assets are major hurdles for self-employed women. Banks shy away from lending money to them because of their lack of collateral security. Moreover, banks are always concerned about rising non-performing assets (NPAs). They fear that loans might turn into bad debt. However, as the examples of Grameen Bank in Bangladesh or SEWA Bank in Ahmedabad have shown, such scepticism is misplaced: the default rates in microcredit are far lower than those for any other credit. In this respect, there is a possibility of starting a

self-help group (SHG), which would build up confidence among members. Initially, an outside agency (local companies in this case) would have to give financial help, but thereafter the SHG would run on its own in a self-accelerating process. In terms of amenities, intensive efforts are required to improve drinking water and health facilities, including a well-equipped hospital providing affordable services.

All these recommendations can be interwoven by starting a comprehensive and large-scale community development programme. Major industrial groups that are active here could join in contributing towards the financial cost and perhaps inviting an NGO with expertise in developing and running such programmes.

References and Further reading

- Acharya, Sarathi** (1996) 'Women in the Indian labour force: A temporal and spatial analysis', in Susan Horton (ed.) *Women and Industrialization in Asia*, London: Routledge.
- Gupta, Dipankar** (1979) *Scarcity and Market Dependence in Damka: A Portrayal of Kisans in an Atypical Village*, Surat: Centre for Social Studies.
- Mehta, Asha** (2000) 'Women's Work' *Alternative Economic Survey (1998–2000)*, Delhi: Rainbow.
- Merchant, Amrapali** (2000) *Women's Empowerment*, Gujarat 2010 Challenges and Opportunities, mimeograph, Vallabh Vidyanagar: Sardar Patel University.
- Narasimhan, Sakuntala** (1999) *Empowering Women*, New Delhi: Sage.
- Panda, Smita** (2000) 'Women's Empowerment through NGO Interventions: A Framework for Assessment', Working Paper, Anand: Institute of Rural Management.
- Patel, Arjun** (1994) *Socio-economic and Demographic Survey of PAPs of the TPC Project at Kawas*, Surat: Centre for Social Studies.
- Sheth, Pravin** (1998) *Women's Empowerment and Politics in India*, Ahmedabad: Karnavati.

Singh, Navsharan (2000) 'Women', in *Alternative Economic Survey (1998–2000): Two Years of Market Fundamentalism*, Delhi: Rainbow.

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Heifer-in-Trust schemes: the Uganda experience

Robert Kabumbuli and Jim Phelan

This paper, based on a survey of benefiting and non-benefiting farm households in Uganda's Mpigi district, analyses the Heifer-in-Trust scheme. Although the scheme is intended to alleviate the nutrition and income deficiencies of the poorest rural farmers through dairy production, the actual beneficiaries tend to be the less poor because of the expenses involved. Such is the fate of many development initiatives in which the benefits often do not reach their intended recipients, with the risk of widening the inequality gap. On the other hand, those who did benefit from the scheme, though better off from the start, were found to be very active and enthusiastic, and it was obvious that the scheme had made a significant contribution to dairy improve-

ment. The challenge, then, remains to devise the means by which the poorest farmers can be reached.

Introduction

Several organisations have adopted the idea of tackling malnutrition and poverty by loaning live animals on a revolving basis to families they identify as requiring specific, targeted, assistance. In Uganda, the animals most commonly used are high-yielding dairy cows. The family meets the cost of rearing the cow and repays the loan by passing on the cow's first female progeny to another family. Hence, the family holds the cow in trust until such time. Organisations such as Send a Cow (SAC), Heifer Project International (HPI), and Bóthar have contributed to the development of the dairy industry in Uganda by sending high-yielding dairy cows to rural families. Prior to 1998, approximately 6000 households had received animals through the various schemes either through receiving animals from overseas or through the pass-on process (Kabumbuli 1998).

Objectives

The objectives of this paper are to:

- review the background of the Heifer-in-Trust scheme in Uganda, giving a brief description of the country's livestock and dairy sector within which the scheme operates;
- examine the strengths of the scheme;
- outline the benefits of the scheme for participating farmers and their local communities;
- detail the problems farmers encountered in participating in the scheme; and
- draw conclusions concerning the impact of the scheme in the district examined.

Source of data

This paper is derived from survey research conducted in June and July 1998 on the

impact of the scheme on families in the Mpigi district of Uganda, in the parishes of Buloba, Nsangi, and Nansana. Of the 102 respondents, 70 were small-scale dairy farmers who had received cows from the scheme. These fell into two categories: those who had received cows more than four years ago and those who had received cows more recently. The other 32 respondents had applied to the programme at least two years before the study period, but for various reasons had failed to obtain the cows. These respondents were used for comparative purposes.

The respondents in this project varied significantly from those of many agricultural development projects. In most agricultural programmes, there is a strong male bias; however, because of the nature of the tasks and the fact that this dairy enterprise is mainly farmyard-based, women had a significant decision-making role with regard to the management of the animals and the disposal of the output. Therefore, in many instances, the most relevant respondent was the woman. Thus, 72 per cent of the respondents were female and 28 per cent male. The idea of entrusting the heifer to the woman is justified by the project implementers on the grounds that she is more often at home and is more capable of giving the love and care that a cow is said to need in order to perform properly. It is also justified on the grounds that rural women in Uganda carry a heavy burden of feeding the family and looking after household expenses such as children's clothes and school fees.

The livestock and dairy sector in Uganda

Information available from the Ugandan Investment Authority (UIA) reports that there were over 5.2 million head of cattle in Uganda in 1992, having increased from 4.16 million in 1986 (UIA 1994). It also states that exotic breeds constituted less than 2.7 per cent of total cattle and that the breeds

were mainly friesian, guernsey, jersey, and Ayrshire.

Shenkute (1995) reports that the major constraints to dairying in Uganda are breed quality, disease problems, pasture quality, lack of capital, and the lack of knowledge about dairy cow management. Kyanama (1995) notes that in many rural areas extension services are almost non-existent. While Kirumira et al. (1998) state that the low service provision to farmers is caused by the fact that extension and veterinary staff have moved to the private sector, Brett (1994) notes that the huge decline in these services after 1971 has not yet been reversed. He also notes that, despite the existence of several NGOs, services targeted to poorer farmers remained the exception rather than the rule.

Background of the scheme

The Heifer-in-Trust scheme in Uganda started in 1982 with the work of Heifer Project International (HPI) in the northern district of Gulu. However, because of problems of security in that part of Uganda, its work was suspended after only a few years of operation. It regained prominence in 1988 when Send a Cow (SAC) of Britain, and later Bóthar of Ireland, became involved. Through these schemes, British and Irish farmers donated in-calf heifers to families that were supposed to be selected on grounds of need. However, in 1993 the import of European cows into Uganda was banned because of bovine spongiform encephalopathy (BSE).

HPI is an NGO that was started in the USA in 1943 by Dan West, and began its work by donating 18 dairy cows to families in Puerto Rico. To date, HPI is active in some 34 developing countries in Africa, Latin America, and Asia. Send a Cow is a more recent entrant in the field and works mainly in Uganda, Kenya, and Ethiopia. It was established in Britain in 1987 as a result of a visit by a Ugandan bishop who made an appeal to British farmers to help Uganda's malnourished children at a time when there

was a milk surplus in Britain. Bóthar was established in 1991 by a group of farmers, community leaders, church leaders, and businessmen in Ireland, and works in association with HPI.

Apart from the alleviation of malnutrition and poverty, the Heifer-in-Trust scheme also aims to create and/or strengthen self-reliant grassroots farmers' groups. The scheme requires that farmers belong to groups before they are eligible for selection as beneficiaries. In addition, they must:

- have enough land to grow 1 acre of pasture for the animal as well as to produce sufficient food for the household;
- be permanent residents of the area;
- attend training on the keeping of exotic dairy cows;
- build a shed for the animal;
- agree to keep the animal on a zero-grazing basis;
- agree to pass on the first female progeny of the cow to another selected applicant; and
- be deemed to be 'poor'.

Strengths of the scheme

The heifer scheme represents an attempt to enable families to support their livelihoods from the production and sale of milk and animals. One of the merits of the scheme in Uganda is that it has managed to achieve a high participation rate, and this is probably because it targets individual families or households. In comparison, many communal rural development schemes fail to generate adequate local participation and support because the people concerned do not see direct personal benefits for themselves. Local people's roles, duties, and rights in communal projects tend to remain clouded in such development ideals as collective action, community development, popular participation, and voluntarism. Although such ideals have risen out of the persistent failure of conventional top-down approaches and policies, they neglect the fact that individuals

would instinctively prefer to put their energies where they see or expect more tangible benefits for themselves and their families.

The success or failure of the heifer scheme is dependent on the beneficiaries' ability and willingness to make a financial contribution towards the dairy business. The farmers normally put up about 350,000 shillings (US\$300) to build the cowshed, plant the pasture, and maintain the animal until it can sustain itself through milk production. This investment is a motivation for the farmer, not only to maximise benefits, but also to avoid failure because of the personal financial implications. Although giving the farmers the animal on the basis of their ability to sustain it through personal contributions can lead to discrimination against the poorest, giving the cows to those who cannot afford it can lead to repeated failures. Such negative outcomes would eventually undermine the project.

The fact that the animal is on loan to the farmer, and is not a gift or grant, is also potentially motivating to the farmer. It gives a sense of self-worth and dignity. Although loan repayment in Uganda has a poor record, the payment in this scheme is in kind and is generally considered convenient. It is also fairly easy for the agencies to monitor the progress of the enterprise. Since the scheme is implemented through local groups, every beneficiary is a member of a group. Group membership normally exerts pressure on members to adhere to standards. Moreover, the farmers' groups are coordinated through zone leaders (and cooperatives where they exist) who are well known to the people.

Benefits of the scheme

The implementation of the heifer scheme has brought about a number of advantages to the farmers themselves, to the communities, and to the country in general. In the first instance, the scheme has popularised the zero-grazing system of livestock keeping. It was found in the study that all beneficiary farmers reared their animals on

a zero-grazing basis, whereby the animals are kept permanently indoors (in a shed, building, or even under a tree) and all feeds, water, and other services are brought to them. This system is said to have become popular in the country since the beginning of the heifer scheme. Zero-grazing enables farmers with little land to engage in dairy production. Although the farmer must have enough land to plant some pasture and other fodder plants, much less land is needed than under extensive systems like paddocking or herding. Zero-grazing also enables cow dung and urea to be collected to use as manure or to make biogas.

Implementing the heifer scheme has also increased knowledge in dairying. All but one of the farmers in the study had been trained in the basics of zero-grazing and animal husbandry, coupled with training in other farming practices, such as compost making, land and water conservation, and integrated farming. This stock of knowledge is very useful in improving people's capacity to make a living through dairying and in contributing to the country's rural development endeavours.

Some employment has been created through the heifer scheme as well, for both the beneficiary farmers and others in related services. For the farmers themselves, the engagement in dairy farming offers real employment with a reasonably secure income. Most of the dairy farmers indicated that dairying had improved their income, and that they were able to afford more goods and services for themselves and their families as a result. The programme also generated opportunities for non-farmers to get employment as milk vendors, permanent or casual farm labourers, or as traders in farm inputs.

In addition to employment creation, the families in the scheme benefited from farm diversification. Despite many arguments that the combination of crop and dairy farming may be labour intensive and overstretch the farmers' resources, the advan-

tages were found to outweigh the disadvantages. Not only did the farmers diversify their income and nutrition sources, but they also took advantage of the interdependence between crop and livestock farming, whereby crop residues were used as animal feeds, and the animal wastes used as crop manure. This research shows that the dairy farmer participants considered the use of cow manure and urea as a great benefit to their crops, and the difference between fertilised and unfertilised crops was evident.

With funds provided by USAID, HPI has introduced the use of biogas technology, in which cow dung and urea are used to produce gas fuel for both lighting and cooking. This is a new technology in the country. HPI assists the farmers by constructing the plants in exchange for a heifer that is passed on to another family. The biogas has been found to be extremely useful, handy, and hygienic by the few households that have so far managed to acquire it. In addition, it is a major step in the conservation of wood, and also reduces the time normally spent looking for firewood.

Farmers' problems

The implementation of the heifer scheme by the donors and the recipients has not always been easy, however. The farmers are experiencing many problems that affect their dairy businesses.

Milk marketing

The greatest problem that the farmers in the scheme are faced with concerns the marketing of their milk. The dairy farmers in the study sold milk in three basic ways: through vendors who collect it at the farm and re-sell it to consumers; through cooperatively operated selling points; or by selling directly to consumers. In our study, all three posed problems for the farmers. The vendors were reported to be unreliable because they take the milk on credit and sometimes fail to pay,

and they also have a tendency to dilute the milk with water. The cooperatively operated selling point could not handle all the farmers' milk because of lack of cooling and storage facilities. The farmers seemed to prefer to sell directly to take advantage of the full price, but they had difficulty getting steady and reliable customers. The farmers not only experienced problems in finding adequate markets, but also had some difficulty getting paid.

Costs of veterinary services and other inputs

Although generally available, veterinary services and inputs tend to be very expensive for the ordinary small-scale dairy farmer. The farmers in the scheme obtain these services mainly from the staff attached to the project or from private practitioners, but they all have to be paid commercial rates. A few of the farmers also reported having received veterinary services from Makerere University's Faculty of Veterinary Medicine, but this was even more expensive because of the transport costs. In addition, the use of artificial insemination, though convenient, is sometimes expensive because it is not 100 per cent effective. Sometimes inseminations fail, but the farmer has to pay all the same. At 15,000 shillings (US\$12) a shot, it works out to be quite expensive for a farmer to pay for two or three inseminations for one calf.

Insemination failure prolongs the calving interval, and this also has financial implications for the farmer. However, the success or failure of inseminations was reported to be partly dependent on the farmer's own knowledge and vigilance in detecting heat and in getting the inseminator on time. On the other hand, it was also reported that some inseminators were unprofessional. They tended to carry out inseminations even when they knew that they would not be effective, just in order to get paid.

Other inputs like feeds and labour are quite expensive for the farmers, especially

considering their income from milk sales. A lactating cow, for instance, consumes about US\$1.25 in concentrates per day. For the 48 per cent of dairy farmers who employed labour, a permanent worker costs about US\$18 a month, in addition to other benefits, or about US\$0.90 shillings per day for a temporary worker. This is in addition to other costs such as the purchase of acaricides and antihelmintics.

In order to improve the labour situation on the dairy farms, the scheme implementers have introduced the use of donkeys. The Ministry of Agriculture, with assistance from the World Food Programme, purchased 165 donkeys from Kapchorwa in Eastern Uganda and sold them at subsidised prices to farmers. Send a Cow also distributed some donkeys on a revolving basis. However, although donkeys are not native to this part of the country, farmers were not given adequate training in their use. It was not surprising, therefore, that the few farmers in the study who had donkeys were dissatisfied with their performance.

Availability of water and grass

Over 30 per cent of the dairy farmers were found to be travelling distances longer than half a kilometre to get water for their animals. They also had problems with the availability of pasture. Although they were supposed to plant pasture for their animals, 66 per cent of the dairy farmers said they did not have enough land to do so. More importantly, the intervening dry seasons hindered many farmers from having enough pasture of their own.

Social implications of the scheme

Despite the difficulties described above, the dairy farmers in our study reported that their families were generally happier since they had received the cows. Their nutrition improved, as did their financial situation. Many also reported that relationships with

neighbours had improved as well. Neighbours benefited because they were occasionally given free products as a goodwill gesture. They had easier access to milk and could exchange crop residues for manure or milk. However, it was also reported that keeping the cows created a big labour and time commitment, which deprived family members of opportunities to engage in other social activities. Some neighbourhood relationships had deteriorated because of suspicions and jealousy, and some families experienced marital problems arising from competition for control of the dairy enterprise.

The scheme's objectives: theory and reality

We shall end our discussion on the heifer scheme in Uganda with a note on the reality regarding the implementation of the scheme as opposed to its stated objectives. As mentioned above, the objectives of the scheme are to improve the nutrition and income of poor rural people, and to form and/or strengthen grassroots self-reliant groups. However, in comparison with the farmers who failed to obtain the cows, the farmers who have benefited from the scheme were already far better off. They were more educated, had more land, and had a higher tendency to send children to school. So it was not necessarily clear how they qualified for the programme in the first place.

Some questions can therefore be asked about the suitability of the scheme for meeting its stated nutrition and income objectives. The scheme makes a heavy demand on the recipients in terms of capital. It is not surprising, therefore, that the cows have ended in the hands of farmers who are neither really poor nor really malnourished. This sort of problem is not uncommon in development projects. It is often the less deprived people in the target population, and those connected with the implementation process, who receive the lion's share of the benefits.

It would therefore be better for the farmers in a project area to have a choice between a pure or cross-bred animal, provided this choice is based on a realistic appraisal of their own ability to manage it. This would not only help to reduce malnutrition and improve income, but it would also help to reach the poorer members in the project area, and reduce the inequality and potential ill-feelings created by the present strategy.

Regarding the objective of creating and/or strengthening grassroots self-reliant groups, it was found by this research that the groups in the scheme were very weak outside the function of organising farmers to obtain the cows and the training. For example, the farmers in Nsangi Parish were wary of group action in such things as collective purchases of acaricides and other inputs. They also had had bitter experiences in attempts to market milk collectively. Nansana Parish had a cooperatively run milk collecting point, the Kageye Cooperative Dairy, but it had problems arising from the lack of cold storage, lack of milk testing facilities, and lack of electricity. It could therefore not handle all of the farmers' milk. It was also found that farmers' groups such as Kageye Cooperative imposed a significant financial obligation on the farmers in application fees, entrance fees, annual contributions, and membership fees in the form of minimum shares. This discouraged some farmers from becoming full members.

However, the operation of groups and cooperatives is a necessary prerequisite to the development of the dairy industry. Commercial dairying requires a number of services that can best be provided by cooperative action. Evidence from countries like Ireland, which have a long and strong tradition of dairying, suggests that dairy farmers could not adequately operate without the numerous cooperative creameries in the country. It is therefore important that the organisations involved in the heifer scheme in Uganda put more emphasis on this well-intended objective of group development among the dairy farmers.

Conclusion

Overall, the Heifer-in-Trust scheme has had a positive impact on the beneficiary farmers in Mpigi district. Many of the farmers in the study who had milk and animals to sell reported improvements in nutrition and income. They also made use of the animal waste as manure to improve their agricultural productivity, and the use of animal waste in making biogas is becoming more popular. Farmers in the scheme had a remarkable enthusiasm about their cows, despite problems such as high maintenance costs and lack of sufficient water and pasture.

Yet, despite the good that has been derived from the scheme, the important issue of *who* is benefiting remains critical. This project had a significant impact on women farmers, as the project was targeted towards them and the nature of the project fitted well with women's roles. However, the heifer scheme was started in order to alleviate malnutrition and poverty among the poorest rural farmers. But the poorest rural farmers (in the context of the countryside in Uganda) are unable to meet the conditions necessary to qualify for the loan of a cow, so they are basically left out. However, while they cannot participate directly in the scheme, they can benefit from increased employment opportunities in the area and from the increased availability of a very good nutrition source, i.e. milk.

Unfortunately, the divergence between development theory and practice is neither new nor isolated. Quite often, the poorest find it most difficult to participate because many factors militate against their inclusion (and against their personal initiative to get involved). Chambers (1983) calls this the *deprivation trap*, in which a cluster of disadvantages combines to keep the poorest trapped almost permanently in their situation.

While there are no short answers or short-cut solutions to these development dilemmas, and while outsiders often find it easy to make recommendations without paying due attention to the logistical and financial implications of these recommendations, the fol-

lowing are points that should be considered in further improving the scheme:

- 1 The organisations should begin a cross-breeding programme to produce animals that could better suit poorer families. This would increase public confidence in the scheme and would better link farmers who have received an animal with the broader community.
- 2 The training given to farmers should be extended to all dairy farmers. Farmers who have received a cow and who are successfully implementing the scheme should be used as a resource for the expansion of training.
- 3 Some farmers reported that the training decreased or almost ceased after the obligation of passing on an offspring was fulfilled. Contact should be maintained through annual or bi-annual training sessions, preferably conducted in groups where farmers can learn from each other.
- 4 The development of self-reliant groups is important in promoting dairying. Training in this regard should be strengthened. Group leaders should be trained in business skills, planning, management, and marketing so that the groups can be run on a more professional basis. They should also be trained in the development of funding proposals for micro projects, which could be funded through local NGOs or through other organisations such as the Uganda Manufacturers' Association.

References

- Brett, E. A.** (1994) 'Rebuilding organisation capacity in Uganda under the National Resistance Movement', *Journal of Modern African Studies* 32(1):53–80.
- Chambers, R.** (1983) *Rural Development: Putting the Last First*, London: Longman.
- Kabumbuli, R.** (1998) 'Donor aided Heifer-in-Trust scheme in Mpigi district Uganda', unpublished MSc Agr. thesis, Department of Agribusiness, Extension and Rural Development, National University of Ireland.

Kirumira, E., F. Kasiyre, and A. Sewaya (1998) *Application of Veterinary Services for Animal Production—Lessons for Veterinary Training Curriculum Development*, Kampala: Makerere University.

Kyanama, F. (1993) 'The role of women in livestock production in Uganda: an evaluation of dairy production as a means of generating income for rural women', unpublished MA thesis, University of Edinburgh.

Shenkute, Tessema (1995) *Rural Milk Production and Marketing Project: Report of Two Missions*, Kampala: FAO.

Uganda Investment Authority (UIA) (1994) 'Dairy Products', Industry Briefing Paper, Kampala: UIA.

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The baobab metaphor for sustainable organisational development at the grassroots

Jolanda Buter and John P. Wilson

Introduction

To understand grassroots-level organisational development in Niger, it is important

to take into account the environment in which it takes place. Niger has one of the lowest human development indices in the world. The processes of population growth and desertification are ongoing, and as natural resources become ever more scarce, so rural communities need to change in terms of their food security systems, social relationships, legal systems, and so on.

Since the 1960s, one element of rural development strategies has been to promote membership organisations. However, only since 1996 has the government recognised autonomous rural organisations and then only those based on a cooperative structure. Initially, when external development assistance was forthcoming, the newly created community-based organisations (CBOs) appeared to be successful; however, once aid was no longer available, CBOs began to lose much of their strength. It therefore became apparent that there was a need to improve organisational capacity at the grassroots level in order to improve living conditions in the rural areas. It is essential that the development of CBOs contributes to the emergence of local organisations that are capable of negotiating with external providers to produce regional development policies and/or methods for financing local development.

The virtual absence of state involvement in the rural areas combined with the general, legal, and institutional constraints facing NGOs in Niger, in addition to differing views about CBO development, means that grassroots organisations must assume responsibility for seeking appropriate tools to facilitate autonomous and sustainable organisational development. CBOs must therefore set their priorities and identify potential sources of support.

The research presented here seeks to provide insights into how grassroots CBOs might encourage long-term and effective organisational development and foster capacity building.

Workshops as a research method

Stories, metaphors, proverbs, and symbols are highly valued in traditional education in Niger and represent an existing repertoire of competence among CBOs. These methods of communication, therefore, not only provide a valuable insight into endogenous knowledge and culture but are also important in organisational life and its development.

In order to build upon the inherent strengths of the people of Niger, we developed an action-research approach based on workshops that used proverbs, poems, storytelling, group discussion, and role-plays. This allowed the participants to explore their thinking about organisations: their deep-seated beliefs about how work should be organised, how authority should be exercised, and how people should be rewarded and controlled. In particular, the proverbs were used as tools to identify the meaning of development and organisational capacities, which participants felt are needed to ensure that their organisations can succeed and play a major role in community development.

The meaning of community development and capacity development

The proverbs gathered during the workshops encapsulate local attitudes toward and insights into features of organisational life such as vision, strategy, culture, structure, skills, and material resources. They also express the importance of respecting principles of evaluation and analysis in order to avoid failure and to ensure continuous learning. Thus, contemporary development issues are not a mandate of donors but are rather of indigenous grassroots concern. The workshops made very clear that, according to Nigerien culture, the debate on organisational learning and organisational capacity development is critically relevant to CBOs and not just to the donor organisations.

According to the workshop participants, good development is achieved when food, potable water, health, hygiene, lodging availability, ownership of arable land, infrastructure, financing, and universal education are assured and when domestic work decreases. They considered that this can be attained only when *social cohesion, good understanding, and good relationships among the different social groups exist at the family, community, and organisational levels*. They felt that community development succeeds only through good leadership, respect for diversity, the search for equality and justice, mutual aid, collective activities, initiative, diversity, creativity, courage, and respect for diverse religious beliefs. Participants from CBOs suggested that good development practices in the community should be integrated with organisational development. They concluded that a capable CBO is inextricably linked to sustainable community development, one reflecting the other.

The baobab as a metaphor for the effective strengthening of CBOs

In one workshop, a woman used the tree as a metaphor of organisational life and development to illustrate the importance of perseverance and learning from experience. Similarly, the metaphor of organism and growth often appears in theories of development and organisational development (Morgan 1997).

The tree as a universal life-giving organism is a very powerful metaphor, and instruments for organisational capacity development at the grassroots level can be inspired by the natural phenomenon of the 'tree'. This is especially so in Niger, where the tree is threatened by environmental change. Rural people make efforts to protect and plant trees because of their alleged regenerative powers. They are conscious that if change does not happen in a very short time the desert will consume life. Likewise, strong community organisations are needed to encourage community development.



Figure 1: Illustration of the baobab and the eucalyptus

In terms of organisations as organisms, the local view of capacity development can be captured in the comparison between the eucalyptus or the red gum tree and the baobab or the monkey bread fruit tree (see Figure 1). This ‘baobab model’ can serve to assist in CBO development, training, and evaluation, as well as in the organic aspects of self-development, learning, and change. We will look next at a comparison of the roots, trunk, and branches of the two trees, which illustrate organisational and individual development.

Comparing the baobab and eucalyptus trees

The baobab is widespread throughout the semi-arid regions to the south of the Sahara. It is a deciduous tree and reportedly lives over 1000 years. It is recognisable by its massive grey trunk and enormous thick branches, which resemble the roots of a tree planted upside-down. Its height does not usually exceed 20 m. By comparison, the eucalyptus was introduced in Africa in the

early 1900s. It is a tall evergreen tree which grows up to 30–40 m, but is normally only 20 m in the Sahel.

The introduction of the eucalyptus and the way it is used symbolise the kind of development that has been implemented in Niger by donor organisations since the 1950s and CBOs’ perception of development as something coming from outside, instead of an internally generated power. According to a tree specialist working in Niger: ‘Today research is still inconclusive about the long-term effects of the eucalyptus on soil fertility and reproduction. An assumption is that it impoverishes the soil forever.’

The roots of a tree collect water and minerals to supply the leaves and the branches with nourishment for growth. They can be compared not only to donor aid, but also to the environment of the organisation: history, level of human development, beliefs, norms and values, legal system, infrastructure, existence of mass media, resources, and so on.

The eucalyptus has many roots and grows quickly. If one root is cut, it soon grows

again. To continue the metaphor, development interventions are also multiple and rather poor at learning from the negative experiences of previous interventions. The baobab, on the other hand, grows several big roots slowly over the centuries.

The tree trunk represents the organisational capacities needed to serve community development. It ensures the transportation of water and minerals, needed for growing, from the roots to the leaves. The activity of transport symbolises the process of capacity development by experiencing, interpreting, generalising, and applying in a continuous way, which takes into account the background of the organisation and the community. Each capacity area can be distinguished in the veins of the trunk and the relationship between the roots and the branches.

The branches symbolise the effects of capacity development on community development, such as access to arable land, health, peace, education, income-generating activities/employment, effective saving and credit systems, potable water, lodging, food, security, and justice. The branches of the eucalyptus are cut to serve as fuel and building materials. However, the wood is easily attacked by termites and other insects, and, therefore, it has to be replaced on a regular basis. Plantations can be managed on coppice rotations of six to ten years, which avoids replanting after felling; however, this depends on the fertility of the soil. The baobab, by comparison, serves as a landmark and a meeting place in village squares. The trunk is occasionally used for water storage and more exotic uses of the trunk have been recorded, including the building of prison cells or toilets. The wood is the least useful part of the tree but is still used to make canoes, rafts, trays, and paper. It is only rarely burned as fuel.

Thus, the branches of the eucalyptus are cut down to serve short-term objectives, and growth resumes. The baobab, on the other hand, serves the long-term objectives and diversity of community development. As a whole, it is used for a variety of purposes in

people's survival strategies. Similarly, organisational capacity development is essential to the organisation's survival in adapting to an ever-changing world.

Trees do not grow only at the top, but organically. Similarly, development affects the whole organisation. Changes are not always easy to distinguish, especially when change affects human behaviour and skills. Certain changes are measurable and quantitative while others are difficult to measure and are more qualitative. This is also shown by the elements making up the capacity areas.

Organisational development has constraints and limitations, like the leaves, flowers, and fruits of trees, all of which are temporary. They come back each new season and have a positive effect on the overall growth of the tree. Over the years the baobab gets bigger and taller, the roots get longer and become more resistant to adverse circumstances. As the tree matures, the fruit becomes more abundant and the quantity of seeds available for new plants increases. Maturity is also important in organisational development to serve sustainable community development. It is a consequence of earlier experiences, and this encourages us to take responsibility for our environment and our behaviour. The eucalyptus, on the other hand, matures quickly and does not have a long lifespan.

Main conclusions

Development should begin from where people are: who they are, what they can do, and what they know how to do. People are at the centre, and thus their beliefs, values, and norms, are at the centre of change. Their culture is also at the centre and should be explored and understood in order to improve the quality, effectiveness, and sustainability of development efforts.

As we have seen, effective knowledge about organisational cultures can be discovered through exploring proverbs, narratives, stories, metaphors, and actual practice.

They express deep-seated beliefs about the way work should be organised, how authority should be exercised, and how people should be rewarded and controlled. The workshop method used in this research is an example of an effective tool in fostering organisational development by encouraging the exchange of experiences and cultural knowledge which exist among CBO representatives.

The development of CBOs' capacity is a process by which they increase their abilities to perform core functions, solve problems, define and achieve objectives and understand and deal with their development needs in a sustainable manner (UNDP 2000). It suggests that the tools of organisational development and their evaluation should be based on the knowledge, experiences, and development priorities expressed by CBOs themselves, in this case in rural areas of Niger.

Community-based organisations should be viewed as learning organisations which facilitate the learning of all their members and consciously transform themselves and their contexts. Not only should attention be given to the effectiveness of individuals, but also to actions which affect an organisation as a whole in order to bring about change. In reality, effective organisational change takes place in a complex manner and is very slow and difficult to achieve. The emphasis on *process* underlines the importance of considering the open-ended nature of the expected outcomes and the need for interventions based on long-term engagements between CBOs and aid agencies.

The comparison of the eucalyptus and the baobab metaphors expresses most precisely what, according to grassroots organisations, organisational development is all about. The eucalyptus is tall, thin and relatively new, it grows quickly, and it is used mainly for fuel and other short-term purposes. The baobab has grown for centuries in the Sahel, is large with big roots, is used for multiple purposes, and serves the survival strategies of rural people, their long-term objectives, and the diversity of community development.

Because of its exploration of cultural associations, this metaphor model is easily understood by local people and can encourage the expression of views and feelings. It can also facilitate a better positioning of CBOs in community development and be effective in strengthening their capacity. It illustrates the interrelationship between aid, environment, organisational capacities, and changes at the grassroots level. It also respects the organic and holistic view of villagers, their reality in community development, and CBO life.

References and further reading

- Atampugre, N.** (1997) 'Aid, NGOs and grassroots development: Northern Burkina Faso', *Review of African Political Economy* 71:57–73.
- Bonnal, J. and J. P. Chauveau** (1997) *La dynamique des sociétés rurales face aux projets participatifs de développement rural: Réflexions et proposition d'action à partir d'expériences d'Afrique de l'Ouest*, Rome: FAO.
- Buter, J.** (2001) 'Capacity Development of Community-based Organisations and its Evaluation in Rural Niger, Niamey', unpublished report, Sheffield: University of Sheffield.
- CRWRC** (1999) *Partnering to Build and Measure Organisational Capacity: Lessons from NGOs around the World*, Grand Rapids: CRWRC.
- Honey, P.** (2000) 'Learning from anecdotes', *Training Journal* (April).
- Kessy, Z. M.** (1998) *Culture africaine et gestion de l'entreprise*, Abidjan: CEDA.
- Levinger, B. and E. Bloom** (2000) *The DOSA Page, New Directions in Organisational Capacity Development*, New York, NY: Education Development Center, available at www.edc.org
- Mariko, K. A.** (1987) *Poèmes sahéliens en liberté*, Paris: La Pensée Universelle.
- Morgan, G.** (1997) *Images of Organisation*, London: Sage.

Oztel, H. and O. Hinz (1999) *Changing Organisations with Metaphors*, available at www.trainingzone.co.uk/

Parkin, M. (1998) *Tales for Trainers*, London: Kogan Page.

Simon, G. and C. Cassel (1998) *Qualitative Methods and Analysis in Organisational Research*, London: Sage.

UNDP (2000) *Capacity Development for Sustainable Human Development: Conceptual and Operational Signposts*, available at www.undp.org

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