

The Social Work Research Centre Barefoot College

A Success Story in Desertification/Land Degradation Control ^{*1}

*Mutsa Chasi and Edith
Mussukuya***

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Introduction

Barefoot College, also known as the Social Work and Research Centre (SWRC), is a voluntary organization founded in 1972, and provides services to the rural poor in Silora Block. The College is located in the rural area it serves, Tilonia village, situated 55 kilometres from Ajmer, the district headquarters in the state of Rajasthan, India. The area extends over 82,349 square kilometres with 110 villages and a population of 100,000. Silora falls under the arid region and experiences frequent droughts.

The College has relied on building and using local capacity. The eight programmes run by the college include water, education, health, social forestry, agriculture, animal husbandry, women's programme, communications and rural industries. Of the 178 staff up to 95 per cent are local staff members who have received training from the college. The

institution is decentralized to eight field centres with resident local staff across the project area. These function as training and resource outreach centres for communities. SWRC considers environmental conservation and development as one and this is achieved through human resource development within communities.

Background

Early resource base surveys

SWRC's environmental work began in 1973 when it carried out a water survey for mapping of the existing, potential and quality of water resources. At the time, the provision of drinking water in the arid environment constituted one of the main programmes. Socio-economic surveys were carried out to identify viable solutions for the alleviation of drought, particularly for the rural poor, in Silora Block.

In 1976, the College worked directly with the community in planning and implementing land-use plans for the environmental improvement of villages. SWRC and Panchayats focused on community land leases, grazing land, deforestation, afforestation and the inadequate access to infrastructure and services, especially water and sanitation.

It was found that the technical interventions based on surveys were not achieving the expected improvement and discernible impact in the existing livelihood and management of the land resource base by the poor.

The SWRC experience of the 1970s led to a change in its policy and strategies, from technical interventions delivered by graduates of external institutions to a community-based development approach where attitude-change processes featured. They had to learn from the people in order to reach out for their effective participation. Consequently, SWRC changed its philosophy and thrust. They would assist communities to improve on the capacity to handle problems with locally available resources, while meeting basic needs and improving their livelihoods. Human resource development of local residents would contribute towards this initiative. The strategy was to combat desertification through an integrated approach with short, medium- and long-term goals which respond to the written project request and priorities of the people.

Financial sustainability of Barefoot College and programmes

Barefoot College programmes are financed by its own core funds which

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amount to 30 per cent of project budget, the Government of India contributes 30 per cent and 40 per cent comes from international agencies such as Hivos, USAID and Save the Children Fund. Barefoot's own core funds are generated from professional services and goods.

Government grants are allocated towards eight programmes where the College has a comparative advantage over Government for programme implementation. The devolution of power and of funds to Panchayats implies that communities will now have access to public financial resources for development programmes of their choice, including services of SWRC.

Land use constraints in Silora block

The Silora block was facing land use constraints arising from:

- Increase in human and animal population;
- Encroachment on open-access grazing land or village commons;
- A breakdown of the effective village level institutions for land management, which contributed to overgrazing and deforestation, especially of the village commons;
- Cows and buffaloes being replaced by small ruminants, in consequence

the extensive grazing land-use system was replaced by intensive grazing;

- Increase in land-use pressure, as a result of the above, leading to land degradation with productivity and carrying capacity of the pastures falling below the natural potential of the ecosystem. This retrogression gave rise to the formation of 'wastelands' (photo 1);
- Communities being faced with inadequate fodder and grazing, giving rise to low livestock productivity. The Wasteland Development and Goat Programme were initiated to redress these constraints.

The Barefoot approach

The Barefoot approach to reclamation and prevention of dryland degradation is focused on people. It is estimated that up to 80 per cent of the investment in the programme is in people and processes, while 20 per cent is in tangible strategies such as wasteland reclamation; water conservation; rooftop rainwater harvesting and non-conventional energy alternatives. This has given rise to an integrated and intersectoral development approach where livelihoods and short-term basic community needs (food, energy, water, health, literacy, employment) are central requisites,

together with important basic components, and inputs into long-term and sustainable environmental programmes. It is anticipated that the human resources that are developed bring about the desired change from within the community.

There is an intricate interface of the degraded or reclaimed resource base with the people and communities. SWRC's success is on the community and human element interface with the natural resource base conservation and preservation so that the environment is in harmony with the sustainable development of people.

Achievements/successes in the implementation of SWRC community-based programmes

Wasteland development and goat programme

Approximately 2.4 km² of wasteland have been successfully reclaimed and regenerated with trees over a total area of 1,295 km². Out of the eight wasteland development projects reviewed there was a failure rate of 25 per cent due to community land-use conflicts at Gundli and Singla, where reclamation was not effected. The successes in the implementation of this programme include:

Vegetation and the ecosystem have been revitalised on reclaimed wastelands. There has been an increase in wildlife species, soils have improved, with reduced soil erosion rates. There has been a notable rise in the water-table in the watershed resulting in increased areas under irrigation due to the improved water yield of wells;

Rehabilitation of vegetation incorporates biological diversity with three vegetation strata, including indigenous species with a mixture of trees, legumes and grass planted. The economic value of species, palatability and preferred livestock feed is important in species selection (photo 2);

The programme has successfully decentralized nurseries for communities outside wasteland development areas.



Photo 1. Tilonia wasteland, adjacent to the SWRC Campus. Land degradation as a result of intensive grazing with high stocking rate of small ruminants.



Photo 2. Afforestation and land reclamation activities in Tilonia.

Night schools and village communities participate in this reforestation programme where seedling survival rate is up to 80 per cent;

There has been increased productivity of wastelands through vegetation regeneration with financial returns from the sale of fodder. Other benefits include direct grazing and fuel;

Wasteland development incorporated the management of the indigenous Sirohi goat by the expansion of a phenotypically and genotypically superior animal through selected buck servicing at field centres. The centres also maintained pure breeds and quality Sirohi does. Goat stall feeding was not adopted due to labour, economic and production constraints.

It was envisaged that participating communities would demonstrate that planned and systematic management of village commons was beneficial and this would lead to a demand for the development of remaining areas. However, this process has been slow.

Rural water programme

The rural drinking water supply programme has benefited 1.9 million people in the following areas:

- Well drilling and successfully installing 1,300 hand pumps (photo 3);
- Construction of a pipeline for sweet

water supply in cases of areas with brackish water. A pipeline water supply is installed where lower caste households cannot have access to water pumps due to caste discrimination. Piped water has benefited 14,000 families in six districts;

- Nine million litres of water were conserved through the SWRC improvement and application of local knowledge in harvesting rooftop rain water and redirecting it to concrete

underground storage tanks. This is a low cost effective solution in areas of brackish water where the community has direct control over the water resource;

- Digging man-made depressions for monsoon rain collection for livestock watering and recharging groundwater. This has had positive impacts in desalinization, environmental protection and raising the water-table level;
- 600 jobs have been created through training local people (the youth, women and the illiterate) in water pump management and technical operation within their communities (photo 4);
- The water programme generates income for staff salaries.

Education, training and employment programme

Communities operate 85 night schools with a total of 3,000 pupils who cannot attend day school as they help their families in agricultural and other economic activities. In this programme 114 local teachers have been trained and acquired employment. The programme instils environmental awareness and protection in the 3,000 children. A children's parliament is an innovation under the education programme. The



Photo 3. Community-built sustainable water pumps provide water for livestock and household use.



Photo 4. Buharu Village Water Committee and Women Group Committee members.

Government of India has established 275 more such schools in other remote areas.

Up to 50 per cent of project budgets is channelled towards alternative employment creation benefiting the poor to break the vicious 'poverty and land degradation cycle'. There are 2,500 artisans employed through the rural industry programme while projects employ up to 2,600 people in the Silora community. Impressive achievements have been made with respect to SWRC training and employment of the youth as Barefoot doctors, engineers, etc.

The women's programme

The women's programme consisting of 58 groups with a membership of 2,000 is instrumental in the initiation of wasteland reclamation, water schemes and construction of mechanical conservation works. Through their collective action and lobbying, the women's groups have gained a minimum wage status and equal opportunities for relief work. This is one sector of the community which believe they have been empowered through the activities with SWRC. The programme is

sustainable as it is issues-based and does not receive external funding.

Achievements of SWRC in other programmes

In its portfolio, SWRC includes other successful programmes which contribute towards the well-being of the people, their livelihoods, environmental protection and preservation. These include a successful rural communication system, a community health programme and the solar programme. SWRC research, trials and demonstrations which seek to explore options and alternatives of environmentally friendly farming systems and livelihoods incorporate biogas, organic farming, and vermiculture.

The development programmes directly contribute to infrastructure improvements for the communities in terms of access to water through storage tanks, piped water and pumps; sanitation, solar lighting (photo 6), day and night schools, crèche, clinics and the eight field centres. The main campus hosts the post office, a telephone exchange which operates on solar power, a clinic, school and training facility for the community and the State. The Tilonia craft shop and export company which is a member of the Alternative Trading Organisation is housed at the SWRC campus.

Social capital

Institutions and sustainability in project operations and maintenance

The Barefoot approach develops sustainable local institutions through broadly based participatory processes resulting in elections of committees who administer projects. Committees collect service fees and operate their own bank accounts. The impact of institutional building was reflected in the 1995 Panchayat elections when 40 per cent of the elected leadership had SWRC linkages as staff or committee members, giving SWRC philosophies an upper hand in community politics and priorities.



Photo 5. Fetching, carrying and tending: just a few of the activities in an ordinary day for the women of Tilonia.



Photo 6. Barefoot solar engineer on solar-powered telephone exchange with 200 lines. Next to him are fabricated solar lanterns.

Sustainability of essential services

Communities sustain their own basic service needs, such as education, water and developed wasteland. It is evident that the culture of financial contributions and Shramadan (community voluntary labour) is now acceptable where communities require services. Consequently, programmes that matter to the community are economically sustainable and their maintenance is institutionalized, so ensuring reliable infrastructure and service provision once the project has been implemented. Villages select their representatives who are trained at Barefoot College. The trained manpower return to their community to operate and maintain project infrastructure under the supervision of committees.

Preservation of local culture, skills and knowledge systems

The Barefoot approach respects, builds upon and gives legitimacy to local culture, skills and knowledge systems. The rooftop water harvesting and rural communication programmes are examples of improvements of indigenous practices. The college has five non-negotiable principles: equality, decentralisation,

collective decision making, self reliance and austerity. These principles imply that the institution is accessible, approachable and flexible in its approaches. This provides the ability to reach the poor, disabled and disadvantaged who participate in all programmes. Consequently, SWRC service delivery systems have remained relevant and sustainable while achieving notable achievements across socio-economic classes and castes, especially the poor, throughout its 24 years of existence.

Socio-economic constraints: attitudes, conflict and social problems

Problems remain, despite the massive input and efforts by SWRC into attitude change processes, social cohesion and organisational structures. The desired impact through human development is a slow process. Some of the projects have failed to make the expected impact due to problems at community level:

- Land-use conflict between communities and individuals;
- Social problems of resource sharing;
- Attitude problems prohibit adoption of innovations;
- Management of common property remains problematic.

While SWRC has made remarkable

achievements in the services sectors, there is a conflict of interest, ideas, practices and standards with formal institutions. That graduates and technical reports are not always the prerequisite to development has been demonstrated by the approach. Nonetheless, technical problems < still require systematic attention of specialists and researchers. There is a need for benchmark surveys for monitoring and evaluation since SWRC is experienced in application and dissemination of local knowledge systems. This could be shared with a wider community. From this perspective, documentation and collaboration with formal institutions remains valid, perhaps in the context of Barefoot practices of participatory approaches.

Replication and the impact of Barefoot programmes on policies

Barefoot has had an impact on policy at all levels. At local institutional levels communities now submit written requests for development proposals. Proposals include community financial contributions, labour, implementation and project management arrangements. SWRC receives more requests than its capacity to implement projects in Silora Block.

The State Government now runs various education programmes based on Barefoot principles, such as the Lok Jumbish and the Shiksha Karmi programmes. A community-based water pump maintenance system has replaced the three-tier system which was controlled by the district level. Barefoot College is the official State training centre for mechanics in water pump programmes.

At national level, SWRC's Director has influenced a shift from the charity or welfare approach for the rural poor to technology-oriented and sustainable participatory development programmes. To this extent 0.02 per cent of the national budget is now allocated to voluntary organization work with the rural poor at village and grass-roots levels.

Up to 23 voluntary organizations (VOs), which share similar aspirations with the SWRC, are affiliated to Barefoot College through a network. The majority of these VOs were founded by former

SWRC graduates and staff members who went back to their home areas and began similar work

Conclusion

The project evaluation team concluded that the Barefoot programme was a

success story in the socio-economic and cultural dimension, especially in the areas of a holistic approach to environmental conservation and alleviation of poverty. It was difficult to measure the effect of human resource development on the environment, this has a long-term impact. The programme was also successful in

improving the livelihoods of whole communities in an integrated approach by providing basic services and alternative employment in an arid environment.