

 19th WEDC Conference

ACCRA, Ghana 1993

WATER, SANITATION, ENVIRONMENT and DEVELOPMENT

Rural community managed projects in Balochistan



D R Birch and P D H Field

Introduction

This paper demonstrates a methodology unique and workable within the constraints encountered. At the same time the approach does include important elements that are considered fundamental in striving towards community managed projects.

As a result of extensive socio-economic surveys of the rural population and short comings with regard to ineffective governmental public health policy, the Balochistan Integrated Area Development (BIAD) was formed in 1980. The programme was initially considered a pilot attempt by the government to mobilize the rural people in the development of basic community services. As well as providing basic infrastructure, the BIAD programme is intended to provide a means of initiating community development.

The basic objective of the BIAD programme is to improve the health status and quality of life for the rural population of Balochistan. This is further defined into the strategic objectives of reducing the alarming rates of mortality and morbidity, providing a ready access to safe drinking water and the development of a low cost sanitation programme.

This paper concentrates on the range of effects the overall objectives, project strategy, resources and constraints have had in selecting appropriate schemes for the highly diverse communities in rural Balochistan. It also deals with the broader issues of community participation and draws away from the implications of government policy and associated logistics.

Community participation is an integral part of the BIAD development programme. This involves appropriate levels of beneficiary participation in the planning, design, implementation and operation and maintenance of development projects. Such participatory levels incorporate the knowledge and expertise of the beneficiaries in preparing project designs, planning and implementation.

Aspects of beneficiary participation have been totally ignored in the past though the beneficiaries were expected to operate and maintain the schemes once completed. Often this resulted in under-utilisation or failure of schemes either because these did not meet the beneficiaries perceived needs or the technologies introduced were inappropriate. Sometimes the technologies introduced were not maintainable by the beneficiaries. In many cases operation and maintenance of such schemes have since been taken over by the Government.

Within the context of community managed systems and the expected benefits of lower capital and running costs, appropriate and socially accepted technologies; and beneficiary care and maintenance of the facilities provided; the approach has involved a number of clearly defined stages as follows:

- Acceptance of the cluster
- Formation of a cluster committee
- Signing of a formal agreement
- Design considerations and participatory levels
- Construction phase
- Operation and Maintenance

Acceptance of the cluster

During initial discussions with the villagers the responsibilities of the intended beneficiaries were discussed in detail. Villages were only considered for inclusion in the programme if full agreement was reached, with regard to the proposed criteria for development and the basis for community participation.

It is common wisdom in development work that initially people are likely to accept most conditions to get development programmes underway in their villages but forget the partnership agreements once the implementation commences. As a cautioning measure a brochure written in Urdu, detailing the implementation strategies and illustrated with simple sketches, was distributed among the beneficiaries.

Selection of schemes was based on a priority order of needs qualified in terms of availability of the water resources per capita, access to potable water and present levels of sanitation. Schemes were also selected on an equitable basis through the Districts and according to the Governments Strategic Development Plan.

Formation of a cluster committee

The first obligation of the intended beneficiaries is to form a Cluster Committee. Typically a Cluster Committee includes; a chairman, a secretary, a treasurer and a number of members depending on the population size and the numbers of villages within a cluster. The Cluster Committee members nominated by the villagers were representative of the whole village. Where the Cluster comprised

more than one village each village had at least one representative on the Cluster Committee.

The Cluster Committee was formed during the time the sociological surveys were conducted. The key factor to determine at this stage was the level of service to be provided in consultation with the intended beneficiaries. For the water supply all schemes, except those involving hand pumps, required a distribution network with supply points. The basic level of service was identified as community standpipes or community tanks, with an attached array of standpipes.

Although this level was found to be acceptable to the cluster groups of remote areas, villagers of the relatively more developed areas requested compound connections. Whilst the project initially considered such demands, the final decision was made once the quality and quantity of water was determined, according to the affordability of the beneficiaries and the cost effectiveness of the scheme. Where it was agreed to provide compound connections the beneficiaries had to pay a proportion of the additional cost above that of the basic level of service.

Signing of a formal agreement

The Cluster Committee then signed a formal agreement with the District Commissioner and BIAD for the scheme on behalf of the intended beneficiaries. This was completed prior to the start of the detailed design and only when the a Cluster Concept Report, based on the sociological, hydrological and hydro-geological surveys, was approved by BIAD and the donors. The agreement, presented in Urdu and available in English translation, set out in clear terms the rights and obligations of all parties signing and include the following items of responsibility:

- to provide land free of charge and arrange the legal transfer to BIAD for the sites of the water supply utilities;
- to allow the contractor to utilise locally available materials such as sand, gravel, water and other natural resources at no extra cost, nor to charge any other royalties to the contractor;
- to assist in agreed items of the construction;
- as appropriate, to provide pump operators and valve men to operate the system;
- to open a bank account and collect funds to maintain the account at a sufficient level to cover at least one months estimated O&M costs;
- to maintain the scheme in its entirety;
- where appropriate to pay for all electricity charges;
- where appropriate to pay for compound connections and required pipes; and
- to guarantee that the water will not be used for irrigation purposes.

The land must have been transferred over to BIAD or to the communal ownership of the Cluster members at the time of the signing of the scheme agreement. At this stage and where appropriate the Cluster Committee should have finalised an agreement for the installation of an electrical connection. BIAD was responsible for the cost of the connection and the extension of power lines where required.

Design considerations and participatory levels

Initial studies of the potential water resources included possible use of surface water and groundwater sources. At the stage of preparing the detailed design of the schemes the beneficiaries were involved as key informants and co-decision makers. The design team consulted the beneficiaries on all aspects of location and the design of the scheme components.

Sullage water often proved to be a problem, in both compounds and community areas, with the extent of the problem frequently dependent on the volume of water available and used by the community. Improvement of village water supplies can give rise to additional drainage problems and cause existing problems to become more extensive. Fortunately the arid nature of the area served to reduce the potential for drainage problems. The actual significance of the problem varied from village to village according to ground conditions, topography and village layout.

Water quality is a major constraint to the development of any water source. Surface water river and canal sources are frequently polluted particularly from wastes from upstream villages. They are also turbid and may be subject to high silt loads, especially at times of heavy rainfall and during floods. Such sources always require treatment and hence therefore become very difficult to design for community managed schemes. Such schemes were not included in the programme and remained as potential public health schemes to be operated and maintained by the Government.

Surface water sources such as mountain streams, springs, karezes and the upper reaches of some small irrigation canals are often clear of biological contamination. Where such sources can be protected from pollution and therefore treatment becomes unnecessary, community managed schemes become more viable. This is particularly the case for gravity fed schemes where initial capital costs and future recurrent costs are minimised. In some areas of the Province, groundwaters were found to be too saline for potable use, however water sources in the Province are generally neither biologically nor chemically polluted from either agriculture nor industry.

Another design consideration, which has fundamental ramifications on the defined approach and the concept of community managed schemes, was the diverse back-

grounds of the various ethnic tribal groups. Two main ethnic groupings live in Balochistan, the Pathans in the north and the Baluch and Brahui tribes in the south. Areas on the boundaries of the Province may have ethnic minorities of Sindhis and Punjabis. The differences between the structures of the major groups of tribes were carefully borne in mind while formulating the approach, design and development of schemes in the Province.

Upon completion of the designs, the designers held formal meetings with the Cluster Committee during which site visits were conducted and design components of the scheme were again reiterated and agreed physically. The Cluster Committee then signed a formal statement that they approved and fully understood the scheme layout and various components of the proposed development programme.

Whilst the designs were being prepared the sociologists discussed the need for recruiting staff to operate and maintain the scheme with the Cluster Committee. The Cluster Committee were encouraged to select candidates for training as pump operators, valve men, maintenance staff and accountants. The training was then organised during the construction phase.

Construction phase

It was during this phase that the beneficiaries role changed from that of assisting in the decision making to that of physical participation in the development of the works. This stage was seen as critical in developing the ownership concept within the beneficiary groups.

There are two ways in which beneficiaries contributed to the construction works; by paying a small proportion of the total costs and by contributing labour. In line with the level of service, the beneficiaries provided the labour for the excavation of all the secondary trenching within the boundary of the villages and payment for all service pipelines within compounds. The contractors were responsible for the construction of the remaining works comprising the source and the distribution system to the villages and the mains through each village. Under such an arrangement, this has had the advantage that the contractor does not have to rely completely on the comparatively slower progress made by the beneficiaries. It also means that the system built by the contractor retains its integrity as an operational water utility. This also allows for possible non compliance of the beneficiaries for certain sections of the secondary pipeline, without interrupting the overall pipe network system.

Where compound connections were requested the beneficiaries were expected to pay an agreed sum for the connection and for the additional piping in extending lines within compounds. For water schemes involving a lower level of service, such as well mounted hand pumps, the beneficiaries level of contribution involved the excavation of the well.

During the construction phase O&M manuals for the schemes were prepared and given to the Cluster Committee. The manuals were produced in Urdu and included various simple sketches to further explain the text. Training programmes were organised and provided to the staff nominated by the Cluster Committee.

On completion of the construction phase a formal meeting is then held with the Cluster Committee during which all elements of the works are inspected. Agreement is then reached as to any defects which require rectification. Following this a formal handing over ceremony is arranged at which BIAD formally hand over the running of the scheme to the Cluster Committee.

Operation and maintenance

The beneficiaries will take the full responsibility for the operating and maintaining the scheme. However, BIAD will continue to provide a follow up service. This will comprise maintenance engineers based at district level to whom the beneficiaries will be able to refer for advice. Any forms of major maintenance requirement will receive the full support of BIAD under a future support programme.

As part of the maintenance programme the BIAD engineers will make routine visits every 2 to 3 months. During such visits a joint inspection of the system will be made by the BIAD engineers and members of the Cluster Committee. Any defects will be noted and recommendations and advice will be given as to the remedial action required. BIAD will also monitor the quality of water supplied in the schemes.

Sanitation programme

Under the sanitation programme, each household have agreed to excavate the pits, construct the superstructure and provide the required unskilled labour for the construction of VIP or twin pit pour flush latrines.

Cluster development

Most village organisations have for the first time been organising the communities to undertake a communal development scheme within their villages. Members of the community have organised the collection of funds, often involving substantial sums in relative terms, and have been deposited into their own bank accounts in readiness for financing the running of their scheme. The funds have been collected from all benefitting households, unlike many development projects in the Province where contributions are made by the few wealthy families.

Many Cluster Committees have formed sub-committees to plan their contribution to the construction whilst some have also formed women's committees of users of the public health facilities provided.

Once the present schemes are completed BIAD will have an on going responsibility to the communities, as defined in the formal agreement. As a part of the objective to mobilise the rural people in the development of basic community services, under future phases, BIAD would encourage further development for the more successful schemes. Examples of further development would include the following:

- arranging for and paying a proportion of the costs of training male and female teachers or health workers, who are from the village, where villagers agree to pay their salaries once they return to the village;
- the construction and/or equipping of basic health centres or schools. Although this would be only done where staffing is guaranteed, since the problem of providing these basic services in most villages is less related to buildings and more a problem of staffing;
- minor improvements to flood protection and irrigation works;
- improvements to village roads, where this is important to the social and economic development of the communities.

Monitoring and evaluation

The programme to date has involved the generation of a number of community managed projects, the success of which can only be evaluated within the limits determined by the overall objectives of the programme, defined by certain indicators.

Monitoring and Evaluation will be an essential part of the BIAD support programme, in ensuring the full integrity and self-sustainability of the development projects. However unless a strong participative approach to the planning and development of the schemes is adopted, objectives will not be achieved.

Health and hygiene

Where water and sanitation programmes have included a hygiene education component, improvements in health and child survival have been comparatively high. Although basic hygiene education does not entail vast amounts of funds, particularly when compared to the overall capital costs of the water supply programme, they do have dramatic and favourable health consequences.

The initial stages of the BIAD programme included elements of an organised health and hygiene education programme. The programme started during the final stages of the scheme design and prior to the construction phase.