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FOR BASIC SERVICES DEVELOPMENT IN CITIES

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"WATER FROM WINDMILLS" AND OTHER EXAMPLES DIRECT FROM THE FIELD

PAST ISSUES OF URBAN EXAMPLES DESCRIBED EXPERIENCES WHICH WERE RELATED TO A SPECIFIC THEME. THE MOST RECENT ONES WERE ON URBAN PRIMARY HEALTH CARE AND ON THE MANAGEMENT OF URBAN BASIC SERVICES.

THE EXAMPLES IN THIS ISSUE HAVE A DIFFERENT COMMON CHARACTERISTIC. THEY ARE NOT DERIVED FROM PROJECT DOCUMENTS OR FROM CASE STUDIES. RATHER, THEY COME DIRECTLY FROM THE FIELD AS PART OF AN EFFORT IN THE SHARING OF EXPERIENCES.

THE FIRST TWO EXAMPLES WERE SENT IN BY THE LIMA OFFICE. BOTH TELL STORIES OF HOW A COMMUNITY WAS ABLE TO SOLVE ITS PROBLEM OF LACK OF WATER. SINCE THESE EXPERIENCES WERE NOT REALLY PART OF A "PROJECT", THE FORMAT OF THE TEXT DOES NOT FOLLOW THE TYPICAL SCHEME. NEITHER HAS A SUMMARY PAGE. THE THIRD EXAMPLE COMES FROM LAHORE, PAKISTAN AND, SINCE IT DESCRIBES A PROJECT, IT FOLLOWS THE TRADITIONAL FORMAT.

SHARING OF EXPERIENCES IS CRUCIAL. HOPEFULLY MORE URBAN EXAMPLES WILL BE RECEIVED "DIRECT FROM THE FIELD".

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WATER FROM WINDMILLS

Background

In 1949, a number of people settled a piece of land located on the outskirts of the city of Arequipa. Since the land has a very irregular landscape with many hillsides and few flat areas, it did not lend itself to a high density type of urbanization. The alternative chosen by the residents was to give this peri-urban settlement a somewhat rural character by using some of the land for small farms and for vegetable gardens.

The land is extremely arid but there is some ground water. In the lower areas it can be found very close to the surface. This allows for easy access to the water which is needed for domestic consumption as well as for small farms and gardens. However, in most areas the water depth varies between 3 and 30 meters, with an average of 12 meters. This situation led the inhabitants of the new settlement to look for a practical and efficient way to obtain their water supply. They developed a system based on hand pumps, pulleys and wind mills.

The total area of about 2,755,000 sq. meters was divided into plots of 1,000 sq. meters to be used either for rearing poultry and small animals on a small or medium scale or for gardening. The sub-division of the land determined the membership of the community association which had approximately 2,000 members.

The Water System

The most successful method developed for obtaining water was the locally built windmill. The first ones were built with traditional materials which included timber and tin and, for pumps, spare parts from automobiles were used. Little by little they were perfected. The ones built most recently are constructed entirely of metal. The windmill parts are still made using materials which are produced nationally.

The actual cost of a windmill varies between 700,000 and 800,000 soles. The pumping capacity is over 2 cubic meters per day although there is some variation insofar as the functioning of the pumps depends on the speed and the direction of the wind. On average, the windmills are active for about six hours per day and the water pumped during this period is sufficient to supply the community with the amount of water needed for the small farms, the vegetable gardens and for domestic use.

The installation of the windmills and the assurance of a water source has led to the construction of 200 large sheds for the rearing of poultry, each one having a capacity of about 1,000 birds, on average. In addition there are 10 pig farms and some stables where cattle are raised for the production of milk. Finally, there are about 250 family gardens. The fruits and vegetables produced in the gardens are in part consumed within the community and in part sold at the market in Arequipa.

Organization

Developing a system for assuring the water supply through the construction and use of windmills took a period of ten years. It was a product of a community association which was untypical insofar as membership was linked to the division of the land. The majority of its members participate actively in the associations' activities.

The association is made up of a committee which co-ordinates the efforts being made to upgrade the community. It also co-ordinates the activities of various working groups which organized themselves around areas of activity such as production, education, health, etc... The community divided itself into twenty-six zones each of which has about fifty families. The associations are thereby effectively de-centralized. Each of the zones has its own committee and its leader sits on the central committee which is for the entire community.

Using this form of organization an arid, inhospitable land was converted into an area of production inhabited by 1,500 families.

A COMMUNITY BUILDS ITS WATER DISTRIBUTION SYSTEM

Background

The pueblo joven of Miguel Grau is located on the outskirts of Arequipa, Peru. When it came into existence 25 years ago its first residents faced a number of serious problems, among them the lack of water. During the initial years one of the daily chores of the families was to fetch water from the Generalísimo San Martín Reservoir. This entailed getting up at dawn, walking 3 kilometers using a path - for there are no roads - and transporting back the containers filled with water.

As the community of Miguel Grau settled in, its residents undertook activities to improve their urban environment. In doing so they had a welcomed surprise: they discovered a water source. The community proceeded to build a well, but this was only the first step. In order to facilitate the fetching of water for all the members of the community, they set up a system of water tanks and public faucets.

System of Administration

Tanks - The water reaches the tanks through a system of tubes which draw the water from the main source. Each tank serves between 15 and 30 households. The quantity of water which reaches the tanks varies from day to day. In the low-lying areas, there are days when very little water reaches the tanks and, as a consequence, each family can only fill one bucket per day; in particularly dry periods they can only do so every other day. Under normal circumstances, each family can take as many as 10 or 15 containers of water.

Payments for the use of the tanks are made to the Empresa de Saneamiento de Arequipa (ESAR). The monthly cost per household amounts to 650.00 soles regardless of the quantity of water which reaches the tank. The cost of construction for a tank as of ten years ago when the last one was completed was 20,000.00 soles.

Public Faucets - In some parts of the community the water is distributed through a system of public faucets. The interesting aspect of these faucets is that a key is needed in order to activate the flow of water. The system of keys minimizes waste and allows families to get their water at whatever time is most convenient to them.

Each faucet serves between 30 and 35 households. All households have individual keys and their monthly payment to ESAR amounts to 600.00 soles. The cost of construction of a faucet was between 30,000 and 40,000 soles.

Organization

The water distribution system is organized according to committees. Each committee is made up of 15 to 30 families which contribute material and labor for the construction of the tanks and faucets. The cleaning and maintenance of the facilities are organized by each committee. In some, families take turns, rotating the responsibility among the various households in the committee. In others, an individual is permanently responsible for cleaning and maintenance and he is paid a fee for his work.

If a family fails to follow the rules agreed to by the committee as a whole, e.g. does not pay its dues or does not clean the tank when it is its turn, the committee can take action against it. It usually does this either by cutting off the water supply or by charging a fine ranging between 500 and 1,000 soles.

The system of tanks has daily hours of operation which in some committees are from 5 A.M. to 7 A.M. and in others from 4 P.M. to 6 P.M. The hours of greatest usage of the faucets, for which individual households have keys, are between 6 A.M. and 10 A.M.

Activities around the tanks and faucets

The times at which the families line up to fetch water are used to undertake education activities. The themes covered include children's health - especially of those under 5 years of age and the importance of primary education. In some cases attempts are made to seek solutions to specific problems affecting children. Typically, working groups with 5 or more participants are formed. The most active participants are the parents of small children.

- 1) NAME OF PROJECT: COMMUNITY DEVELOPMENT IN KATCHI
ABADIS/SLUMS OF LAHORE - PAKISTAN
- 2) TARGET POPULATION: 50,000 residents of 11 deprived urban areas - 7 katchi abadis (undeveloped habitats) and 4 slums in Phase-I
- 3) TIME FRAME: 1981-83 with prospects of extension
- 4) EXECUTING AND CO-OPERATING AGENCIES: Punjab Planning and Development Department, Social Welfare Directorate, Lahore Development Authority, Lahore Municipal Corporation, Pakistan Family Welfare Council, Pak Malnutrition Centre
- 5) COSTS: --
- 6) SOURCE OF FUNDS: Various levels of government, NGO's, Community, and UNICEF
- 7) OBJECTIVES: To improve the quality of life of disadvantaged groups through the provision of social services and physical infrastructural facilities based on community self-reliant approaches.

BRIEF DESCRIPTION:

COMMUNITY DEVELOPMENT IN KATCHI ABADIS/
SLUMS OF LAHORE - PAKISTAN

Background

The most disadvantaged sections of the urban population in Pakistan consist of the millions concentrated in hundreds of slums/katchi abadis in various cities. The term katchi-abadis (undeveloped habitats) refers to settlements inhabited by squatters who have settled illegally on public and private land. The inhabitants pay no taxes and thus receive no municipal services. In slums, the residents are still without proper basic civic facilities in spite of paying taxes.

Lahore, the capital and the biggest city of the Punjab Province, has 100 katchi abadis as well as a large number of slums. An elementary physical survey of these areas revealed a state of absolute poverty coupled with a lack of minimum basic amenities. The Lahore Development Authority is undertaking a phased programme for the development of these areas. To help accelerate the process a Government/UNICEF integrated development programme has been launched on an experimental basis in 11 such areas. The project attempts to promote community development by integrating and further strengthening the available physical and social infrastructure leading to an overall improvement in living conditions.

Programme components

1. Physical infrastructure including the construction of multi-purpose Community Homes.
2. Improvement of social services in the areas of health (growth monitoring, MCH, immunization, ORS delivery service), education (formal and non-formal, adult literacy), environmental sanitation (hygiene education, construction of demonstration latrines) and income-generating activities for women.
3. Mobilization of community resources for the introduction/development of social services.

Organisational structure

A Central Project Office has been established within the Punjab Planning and Development Department to ensure co-ordination between all concerned agencies. The Project Director works with liaison officers from the various departments who have specific duties and responsibilities vis-à-vis the project.

The project relies heavily on community support for planning, implementation, management and monitoring at all levels. Committees have been established for different activities and community volunteers are being trained in different aspects to assist the technical staff. These volunteers serve as communicators, change agents and the primary service link in preventive and curative health care (nutrition, MCH, immunization, sanitation), education and vocational training. Regular committee meetings ensure co-ordination and continuity of service.

Methodology

After an initial random survey the community selected is mobilized through individual and collective contact to make self-reliant efforts for development. A Community Development Council (CDC) is elected and sub-committees set up for different activities. A community self-survey is organised to identify and prioritize needs and a Plan of Action is formulated by the community leaders and members.

The management training for CDC members covers organization, implementation, financial account-keeping, supervision, monitoring, reporting and resource development. Training is undertaken through meetings and workshops. The community project workers--employees and volunteers in the technical aspects, are trained according to the nature of their work. Traditional birth attendants receive training in aseptic pre- and ante-natal procedures from the MCH Centres Lady Health Visitors (LHV's). The nutrition workers receive academic and on-the-job training from a team of master trainers. There is also provision for refresher training of qualified LHV's in health-related aspects and LHV training for local girls through government and NGO training institutes. Adult literacy teachers are given a collective week's intensive training by the Adult Basic Education Society while the services of Industrial Centres are supplemented with periodic courses conducted by specialist trainers in various skills. Wherever possible trainees are taught elementary record-keeping and account-keeping.

Material support is provided in the form of equipment and nominal stipends to a limited number of workers. Accommodation for Centres, electricity, water, gas appliances and charges are the community's contribution. Salaries of the Centres' staff are also a community input though they are sometimes subsidized by the relevant government departments or an NGO. Nominal fees are charged for all services to raise running expenses. Land for the multi-purpose community centres now under construction has been provided by the Lahore Development Authority but in one case this is also a community donation.

Project performance is reviewed regularly with the active participation of the CDC in an atmosphere of free and easy discussion. Problems and bottlenecks are followed up with the agency concerned.

Results

Activities are at a varied level of implementation at different locations, the seven initial areas being naturally more advanced. In these seven areas MCH activities, Industrial Training Centres and the Nutrition Programme are well under way while the educational activities are being initiated. The construction of Community Homes is expected to be completed within the next six months. The Industrial Training Centres have an average attendance of 30 girls and the MCH Centres an average daily attendance of 20--30. Practical skill-training activities have been arranged for out-of-school youth.

Immunization services instituted recently are expected to cover a major part of the child population in the next few months. The NGO handling the Nutrition Programme reports a sizeable output of trained nutrition workers and an encouraging response to surveillance and rehabilitation activities. A preliminary disability survey has been conducted.

In the four areas subsequently selected communities are being mobilized. CDC's have been formed and an initial assessment of needs is being made. At one of these MCH and Industrial Training activities have already been initiated. Sites have also been provided for Community Centres.

Conclusions

Since the community participation concept is new, government/NGO officials and community members have sometimes been slow to substitute this for old beliefs. Other constraints included local dissensions, non-availability of quality sites for Community Centres, procedural delays and the community's initial problems regarding organisation, resource development and location of technical staff and prohibitive social restrictions on women. In spite of this, appreciable headway has been made. The community response has been especially encouraging.

Although targets have not been fully met in some cases, the experiment has been sufficiently successful to merit replication in Lahore and other cities. Indeed, a proposal for an expanded project covering a total of 500,000 inhabitants has already been prepared.