

Pakistan



PROJECT BRIEF

BALUCHISTAN COMMUNITY IRRIGATION AND AGRICULTURE PROJECT



South Asia Region (SAR) - Pakistan

Overview :



It is often water and not land that is the limiting factor in agricultural development. In developing countries, agricultural outputs still account for a large proportion of subsistence and export economies. In addition, progress in increasing productivity of crop agriculture is central to efforts to ensure global food security and the conservation of environmental resources.

The Challenge

In Pakistan, irrigation is central to the country's economy. Approximately 90 percent of agricultural output is entirely dependent on irrigation. Yet Pakistan's irrigation and drainage system is in dire straits, suffering from water-logging and salinity, over-exploitation of fresh ground water, low efficiency in delivery and use, and inequitable distribution.



Take, for example, the case of Gazg, an isolated and neglected village of Balochistan, 280 km southwest of Quetta, the provincial capital. In the absence of telephone, electricity, reliable water supply, and a road, Gazg's population had little choice but to spend at least three months every year to divert only 5.8 cusecs (cubic feet per second) of water. Half of this diverted water would go to waste due to seepage between the intake point and the destination area. The annual flood of the Momi River would wash away the diversion structure leaving the villagers with no option but to spend another three months next year doing the same thing all over again. With the completion of a Rupees 53 million landmark project supported by **BCIAP**, Gazg Perennial Irrigation Scheme supplies villagers with 7.5 cusecs of water and 20 kilowatt of electricity annually.

The project comprised four components: community development and support, the construction or rehabilitation of 30 perennial irrigation schemes and four pilot flood irrigation schemes, institutional strengthening, and project management. Under the community development component, the project provided technical assistance for developing farmers' organizations, the design and construction of irrigation works, formation of women's groups, promotion of better land and water use, and the provision of agricultural extension services. The construction component also provided drinking water (where needed and practical) to people living within the project area. The project's institutional development component trained about 50 Balochistan Irrigation Department (BID) staff members in community participation and began the process of transforming the department from a construction agency to a service organization for small-scale irrigators. The project strengths lies in the organization of the communities, which had to sit down, discuss and agree on one project and contribute with cash

Water and Irrigation in Gazg

Last season, Juma Khan, the Vice-Chairman of the Farmers' Organization in Gazg, who owns two acres of land, for the first time, harvested his own wheat crop. The harvest is enough to supply his entire family for a year. With the availability of an enhanced and uninterrupted supply of water, farmers extended the wheat-growing area by seven to eight times. Previously Gazg's wheat could only be grown on 15 to 20 acres; the amount swelled to 125 to 150 acres this year.

As water is regularly available Khan grew tomatoes in partnership with his neighbor who owns four acres of land. One 50kg bag of tomatoes has earned him Rupees 900 and he produced 50 bags per acre. *"I can take better care of my family, my children's health and their education,"* Khan said.

An innovation that has really enhanced the value of the project is the addition of a power turbine to the irrigation channel. One of the benefits of this electricity supply is that the villagers now turn their fans on at night reducing the risk of malaria that was quite rampant in the village. In addition, the risk of snake and scorpion bites has been reduced considerably because of well lighted houses.

Electricity for the village mosque, school and dispensary is free. The villagers who opted not to become community members will now have to wait until a second turbine is installed to increase power production as the mini hydropower machine can not supply more electricity.

As the villagers don't have to spend three months every year to diverting irrigation water, they now use this time to clear more fields for cultivation. *"In addition to chota khair (first terrace) now we are growing crops on bara khair (second terrace),"* said Shakar Khan, 35, the chairman of Farmer's Organization. *"In the month of May, our crops would dry out because of water scarcity, but last year we had four times more yield."*

"As a result of the successful completion of the project, malnourished villagers have increased their food intake and the general health of the people is improving. A healthy better organized population under the project area is looking forward to a more prosperous future," said Rashed Ul Qayyum the World Bank's task leader for the project.

and time for its pursuit. The ownership component deriving from this process ensures that the project is sustainable over time.

The **Balochistan Community Irrigation and Agriculture Project** closed in June 2002. It helped redefine the role of government from provider of facilities to an enabler of asset creation, establish grassroots institutions to manage local issues, and introduce simple technologies that permit better resource use and increase income and employment.

L e g a c y

Despite recent drought, the **BCIAP** project has been successful in encouraging the participation of local communities. It also encouraged initiatives to empower women in a traditional male-dominated community. To reduce water-related morbidity, the project trained women on health, hygiene, and safe water usage on all schemes, including the completion of 11 potable water supply systems, which also eased the women's burden of fetching water. In addition to giving training for the Operation and Management of potable water supply system, the women were trained to prevent water-borne diseases, and 785 bed-nets were sold to communities to decrease the incidence of malaria.

The success of the project must not only be seen in its timely completion of the physical infrastructure, but also, more importantly, in its truly participatory manner. Communities contributed cash resources and labor, planned together with the engineers, acted as contractors, were eager to be trained, acquired new skills, and are fully conscious of the benefits in maintaining their communal assets, which in turn enables them to truly "own" the projects.

The Balochistan Community Irrigation and Agriculture Project is an example of how grassroots organizations, supported and guided by government agencies, can apply technology to improve their lives. The project concentrated on developing farmers' organizations to help plan and construct minor irrigation systems and then to assume full responsibility for operating and maintaining them.

For more information on World Bank assistance to Pakistan including lending please visit: <http://www.worldbank.org.pk>

For more information on this project please visit: <http://www4.worldbank.org/sprojects/Project.asp?pid=P010482>

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