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SUDAN

WORKER MANAGED ENTERPRISE IN KASSALA

This is one of the few successful examples of worker-managed enterprises in Africa, which has improved the living standards of poor brick producers and their families in Eastern Sudan through the generation of secure employment and income.

Brick production in Sudan is an important economic activity and involves around 5,000 workers around the East Sudanese city of Kassala. For the Beja tribe's people of Shambob village, for example, who had originally subsisted as herders and farmers, brick making is an alternative means of livelihood, particularly since the drought in 1985. The village has 526 inhabitants and two-thirds of the men are brick-workers. However, the living conditions and income of brick makers were typically very low and insecure since most profits of the industry went largely to middle-class businessman who owned or rented the land.

Building on its previous work on small enterprise development in Sudan, the Intermediate Technology Development Group (ITDG), an international NGO, began research on the brick production industry in 1995, concluding that additional profits could be made from cost-savings from energy efficiency and from a higher price from better quality bricks. A baseline survey of Shambob was conducted in 1997 and a project was established in order to provide support for a small group of brick makers to manage their own enterprise and to benefit more from their hard labour. In the following year, the Shambob Brick-Producers Co-operative (SBPCOOP) was formed, with a membership of 115 workers.

ITDG provided support through action research and capacity building. With the participation of workers and local and international experts, technology was developed to improve the energy efficiency of kilns, to try out alternative fuels using residues, and better methods of moulding. Capacity building involved the training of SBPCOOP members in acquiring skills to produce better bricks, to market their product, to manage the co-operative, and to negotiate with local authorities, the bank and other funders. This involved not only technical production training but also training in management, cooperative law, costing, book-keeping and marketing. Funding for the project was based on a contribution from each member (of

around US\$ 20) as start-up capital and money raised from a variety of sources including the European Commission and German GTZ.

The co-operative faced various challenges during start-up. The acquisition of land was initially difficult largely because of the vested interests involved. The access to bank credit also presented difficulties when loan repayment periods did not coincide with the seasonal production periods. Despite such obstacles, SBCOOP is now recognized by the Department of Co-operatives and is able to attract credit from the banks.

The project has applied research and technological innovation to improve production. Traditionally, bricks were produced mixing clay with cow dung and fired in kilns fueled by wood. The new approach uses Bagasse, a readily available production residue from the regional sugar industry. This is both mixed into the clay, like the cow dung, and made into briquette blocks which can be used as fuel for kilns instead of wood. So far, the project has resulted in a reduction of at least 50% in the use of wood fuels - likely to be reduced to 75% in the near future. A small permanent Scotch kiln has recently been built to achieve further fuel efficiency. Moreover, better moulding and more controlled drying processes have resulted in the production of much higher quality bricks. Not only has this increased production and sales (almost triple that of the previous year) it has improved construction standards in the country, as better-shaped and quality blocks, although more costly, save in mortar and construction time and reduce the overall cost of building walls. A few demonstration structures have been built in the region and now accepted as the standard for several government departments and agencies such as Plan International.

Not only has the project demonstrated commercial viability but also environmental sustainability, which is particularly important in the arid, drought afflicted context of Sudan. The potential for the use of recycled waste or residues substantially reduces the pressure on the scarce wood resources of the country. This has considerable potential for the development of alternative and intermediate technologies elsewhere such as the use of rice husks, coal dust, ashes and sawdust in Sri Lanka, Zimbabwe and Peru. The lesson applied here is the vital contribution of local skills and resources in the development of more appropriate and sustainable technology. As a result, production and sales have increased leading

to a 100% increase in the income of the cooperative members. This has enabled some members to send their children to school for the first time, pay medical expenses, or improve their houses.

The initiative also adopts a gender-inclusive approach - a major achievement considering that in the Islamic society of Eastern Sudan it is not culturally acceptable for men and women to work together. The solution adopted was to engage the participation of women in other associated economic activities of the co-operative. For example, the female members of SBCOOP are involved in transporting and selling water in the village, enabling them to make an income from the project.

Two more worker co-operatives have been formed following the success of the Shambob initiative and more are in the making - currently around 250 brick workers are now involved in self-managed brick production in 3 locations in East Sudan (approximately 5% of the sector's labour force). More than 100 other brick workers in 3 other locations have already approached ITDG Sudan for support in establishing a producers' co-operative. If the constraints on external funding can be overcome, then there is definite scope for the expansion of the project to other parts of Sudan.

An international NGO is being developed in order to support the development of co-operatives elsewhere, with the results of this initiative being disseminated to other countries within ITDG's international shelter programme.

