

# Reflecting on farm pond development

Michiel Verweij

Many initiatives have contributed to developing farm pond technology in Bolivia. Over time, different stakeholders have come together to scale up this technology. Strong organisation at community level has helped rural people to influence this process.

Ponds are not new in Bolivia. In the past, they were associated with large-scale cattle ranches in the lowlands of Santa Cruz. However, traces of traditional ponds are also found all over the semi-dry inter-Andean mountainous region between 1000 and 3000 m. These ponds were simple, mostly used for watering livestock, and usually had a storage capacity of less than 500 m<sup>3</sup>. They were constructed by individuals or local organisations and remained a local initiative.

## PDAR at work

Pond building first appeared on the institutional agenda in the 1990s, when the Programme for Alternative Development (PDAR) began promoting the technology as a way of improving production and stimulating social organisation. PDAR wanted to prevent subsistence farmers migrating from Cochabamba to the coca producing areas. Regional government departments, local NGOs and private enterprises were mobilised to implement the project.

Self-help and community participation were key to PDAR's strategy. Peasant farmers took up the idea of building ponds to harvest rainwater and worked hard to convince engineers to try them out. Ideas emerged to divert floodwater from the seasonal streams to a series of ponds in the valleys and several of these pond systems were built, including the well-known example in the Oloy community (see *LEISA Magazine* Vol 17.3 p 43).

Most of the ponds constructed by PDAR were simple 'holes in the ground' and many had serious construction and management problems. A few years after construction, only 25 percent of ponds were still working at full capacity and many had collapsed or were abandoned. An evaluation in 1992 recommended that if ponds were built for individual families, maintenance and operational problems would be avoided. By making their own financial contribution to pond building, families would also gain a greater sense of ownership. Better designs and construction guidelines were also required.

## Maturing initiatives

CORACA, a farmers' organisation in Aiquile, began working with farm ponds in the mid 1990s. Together with the University of Cochabamba, they studied the successful experiences of Oloy to see how ponds had benefited farmers' families and their communities. They found Oloy had developed a flourishing fruit and vegetable production that complemented traditional cattle rearing farming systems well. New (informal) organisations and groups had been created to deal with water management, production, credit and commercialisation and, by exchanging experiences with other communities, Oloy had become a resource community for pond farming in the region.

The confidence generated by the Oloy experience encouraged more NGOs, local governments and farmer organisations to start implementing farm pond projects. Rural people in the Andean region are organised in farmers unions (*sindicatos agrarios*) with tiers at local, regional and national level. In many cases, these unions provided the organisational entry point for water harvesting activities.

Although different organisations had different working methodologies and pond designs, there was some exchange of ideas between them, such as encouraging farmers to make a 10 to 30 percent contribution towards their ponds. Some organisations chose to build ponds for collective use, but as these often encountered problems of ownership and maintenance - individual ponds proved a better option. The quality of pond infrastructure remained a problem in family ponds because of the need to keep costs low.

With the introduction of the Popular Participation Act (*Ley de Participacion Popular*) in 1994 and political decentralisation at the administrative level, peasant farmers became more able to participate and influence district development policy. A proportion of the central government budget was now available at local level. This meant that local politicians and organisations came under pressure to make the districts more productive, while the rural population became increasingly active in demanding support from local government.

Lobbying got ponds onto the local and regional development agenda and very quickly political parties realised the political potential in the movement. NGOs started to link up with local government to access funds and material available locally to support the pond programme. Organisations like CORACA, for example, made strategic alliances with district governments and started to work with private contractors.

In 1998, Cochabamba experienced an earthquake. Funds made available for reconstruction also stimulated a larger institutional irrigation effort. A technical unit was formed to work with local organisations implementing projects at field level. Standards for the design and implementation of ponds were developed because experience had shown that there was a need for higher technical and administrative standards. As a result, the quality of ponds increased although, problematically, costs also increased significantly.

## Acceptance

As ponds and pond farming became more widely known, they became better accepted. The subject now has a formal status and is included on the curricula of universities and training centres. It is also firmly established on both local and regional political agendas.

Communication and collaboration between communities, local government and local development organisations has improved considerably during recent years and pond farming is now seen as a useful initiative to work on together. The next joint effort should be to adapt the pond technology to make it cheaper. Bolivia's experience of pond farming has shown that no matter how relevant a technology may seem at the time of project implementation, there is always room for improvement. It is important to return to a project area to evaluate and learn from the long-term results.

Michiel Verweij. Sharing Capacities in Managing Natural Resources. SNV Zimbabwe. Arundel Office Park, Block 9 Norfolk Road, Mount Pleasant, Zimbabwe. Email: mikat@mweb.co.zw

- Maita, J.C., and Verweij, M.J., 1996. **Water means life.** *ILEIA Newsletter* 12.1, April 1996, p 12.

- PDAR 1992. **Caracterizacion y evaluacion de atajados construidos por PDAR en 1991.** Informe interno, Cochabamba.

- Verweij, M.J., 2001. **Cosechar lluvia: Guia de implementacion y uso de lagunas-atajados.** CORACA-SNV, Cochabamba, Bolivia.

- Verweij, M.J., 2001. **Towards sustainable pond farming.** *LEISA Magazine* 17.3, October 2001, p 43.