



New Water Rights for Basin Management and Inclusivity in Spate Areas - Pakistan

The challenge

Spate irrigation is a unique water resource system that makes productive use of short duration floods in dry river beds for the cultivating of crops. It is common in Pakistan, covering an area of 1 Million ha. Farmers in the spate systems have to cope with a large range of floods that vary in volume and timing. In these systems, changes to river beds and sedimentation levels take place and river course alterations are unavoidable, making these systems unpredictable.

In the face of increased water scarcity, the potential for inclusive growth that is offered by seasonal floods needs to be harnessed more than ever. Spate systems are largely forgotten and ignored, in spite of their long history, but they offer an important potential for economic growth and inclusive development.



Figure 1: Farmers preparing the fields for the new round of crop cultivation.

Our approach

The Newarbi project aims to optimize the current spate systems by revising the water distribution rules in those dry river systems that have benefited from technical interventions in the headworks. It is envisioned that as through the project the systems are brought up to date after changes made to main headworks and resource use, thereby optimizing their overall productivity and promoting their

inclusivity, especially for the weakest downstream users.

In addition, a whole range of improvements – related to crop agronomy, livestock keeping, small mechanization and water storage, based on proven experiences elsewhere in similar water systems is being introduced through farmer groups.

The goal

There is a need for a good mix of expertise related to both social change processes and concrete action in the field of water management rules and regulations and improved practices. This requires a partnership of organisations that each offer their own specific value for the actions to be made in Pakistan.

The project focussed on goals through three Work Packages:

1. Improved and equitable utilization of productive floodwater
2. New livelihood opportunities through improved land and water management practices
3. Out scaling and dissemination of recalibrated water distribution rules and livelihood opportunities

Project name	New Water Rights for Basin Management and Inclusivity in Spate Areas
Project region	Pakistan (Balochistan and Sindh provinces)
Financed by	Ministry of Foreign Affairs of The Netherlands, through the Sustainable Water Fund (FDW)
Implemented by	GOPA MetaMeta, Strengthening Participatory Organisation (SPO) and Research and Development Foundation (RDF)
Duration	01/2019 – 07/2025
Partners	Sindh Irrigation and Drainage Authority (SIDA) and Irrigation Department of the Government of Balochistan

Key highlights

The following major achievements were reached during the project:

- ✓ Establishment in Joint Management Committees (JMCs) and Farmer Networks in both project areas, covering a total of 150.000+ ha.
- ✓ Desilting of canals and rebuilding of embankments, bringing water to an additional 15.000ha of cropland in the downstream parts of the Kacchi plains.
- ✓ Introduction of several livelihood opportunities, with a focus on improving the socio-economics of rural households with a focus on WASH and food storage and processing methods.
- ✓ Increased visibility of Spate Irrigation in Pakistan through presentations and seminars.
- ✓ Knowledge exchange among farmers of both project areas, including an exchange of best practices, crop varieties and livestock.
- ✓ Multiple follow-on projects formulated and integration of Spate Irrigation in provincial policies.



Figure 2: Embankment construction through the Joint Management Committee

Examples of our success

Through the work and network on the ground, the project was able to respond to the major flooding of 2022, through the assessment of damages, but also through initiatives to make seeds available to

the flooded areas, to allow the farmers to utilize the additional water.

The JMCs and Farmer Networks played a major role in providing the farmers with a voice and in preventing and resolving conflicts over land and water resources. Also they have become a more equal partner to the landlords, and are included in discussions.



Figure 3: Group of women trained on pickle making, one of the income generating processing methods introduced through the project.

Voices from the field

"In the inception phase of the project, I found out how farmers from other countries apply innovative methods in spate irrigated areas, while farmers from Nai Gaj stick to old methods. Therefore, I feel the need to work proactively on this project, so that farmers in Nai Gaj can I am optimistic that this project will help farmers in Nai Gaj and beyond to fully enjoy spate irrigation systems benefits."

Gulsher Panhwer (Team Leader RDF)

"I belong to a rural area in Balochistan, where spate irrigation has already been practised for centuries. Irrigated fields, after the rains, are a source of happiness for all of us in the area. However, more work is needed to improve the system."

Abdul Salam (Sociologist and Team Leader, SPO)

Info: <https://floodbased.org/projects/newarbi/>

