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MULTI STAKEHOLDERS JOIN FORCES TO INCREASE WATER PRODUCTIVITY IN RICE AND COTTON (WAPRO)

The Water Productivity Project (WAPRO) – a multi-stakeholder initiative to address water efficiency issues in rice and cotton production in Asia



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HELVETAS
Swiss Intercooperation

PUSH – PULL – POLICY

An innovative approach to increase water productivity in rice and cotton

Experts and scientific studies in various science disciplines agree that water and irrigation issues are a key concern for global food security and that potential water conflicts are an essential risk for water scarce regions.

Positioned within the Global Programme Food Security of the Swiss Agency for Development and Cooperation (SDC) a multi-sectoral group of actors under the lead of HELVETAS Swiss Intercooperation allied to roll out an innovative approach to address inefficient irrigation practices in smallholder farming of cotton and rice in India, Pakistan, Tajikistan and Kyrgyzstan.

The alliance is based on the insight that the complexity of water productivity in the field cannot be tackled by individual actors. A more holistic approach is required that can only be achieved by a set of activities that plug together synergistically. Thus, the actors came up with the idea to develop an approach that can implement three components practically:

What is water productivity?

It is the ratio between amount or value of a crop and the amount of water applied for its production. Increasing water productivity means

- a) to decrease the amount of water for production while keeping or increasing the level of yield/income from the crop, or
- b) to increase yields/value of a crop, while keeping or decreasing the amount of water.

1) **The Push Component** will address the knowledge gap of farmers. Particularly small-farmers have either not the knowledge about modern irrigation practices or they cannot risk to experiment with practices different from the ones they are using already.

This component represents the usual approach of development cooperation: Bringing a change of technologies via extension. This approach is useful, but finds only a fraction of the farmers adopting the methods, because incentives for the change are lacking.

2) **The Pull Component** addresses the lack of incentives. Farmers that either produce cotton or rice will be motivated to change production and irrigation practices, because the buyers of the product support this change either by a direct premium or via the benefits of a systematic programme.

3) **The Policy Component** aims to fill the gap that inappropriate water governance is creating. The water distribution, the maintenance of the channel system, and the right timing of irrigation leaves in many cases room for improvement and requires efforts beyond the reach of an individual farmer or a single private sector entity. The stewardship approach (for explanations see next page) brings water users together to agree on a joint action and water use plan.

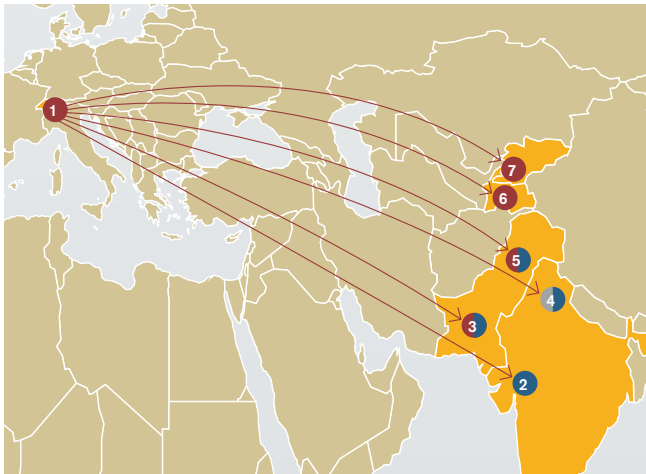


The interaction between the three components: push – pull – policy

6 SUB-PROJECTS, 4 COUNTRIES,

AND 7 STAKEHOLDERS

WAPRO is a multi-stakeholder initiative with six sub-projects in India, Pakistan, Kyrgyzstan, and Tajikistan. The consortium partners implement the following sub-projects and activities based on a co-financing model. Together with the SDC contributions the overall project budget for the first 3 year phase (2015 – 2018) amounts to six million Swiss Francs. A second phase with another jointly contributed funding amount of six millions Swiss Francs is planned for 2018 till 2021.



- 1 Consortium lead and overall coordination: **SDC** mandated **HELVETAS Swiss Intercooperation** with the coordination and framing implementation of the overall project.
- 2 Cotton – India and
- 3 Cotton – Pakistan
The Better Cotton Initiative will integrate water saving technologies and approaches within selected projects for the implementation of the Better Cotton Standard in both countries, thereby combining productivity increases with sustainability improvements embedded in a tradable standard recognised by the market. In Pakistan, water stewardship elements will be implemented jointly by the involved actors facilitated by Intercooperation Pakistan – the local subsidiary of Helvetas in Pakistan.
- 4 Rice – India
The Sustainable Rice Platform, Coop Switzerland, and **Intercooperation Social Development India** jointly support water efficient rice production in a contract farming system.
- 5 Rice – Pakistan
Mars (owning the renowned rice brand Uncle Ben's Rice) together with their local supply partner **Rice Partners Limited** jointly implement water efficient production of basmati rice in Punjab area. Scaling-up of this approach to other Rice companies in Pakistan will be facilitated by the **Sustainable Rice Platform**. Water stewardship elements will be implemented jointly by the involved actors facilitated by **Intercooperation Pakistan**.
- 6 Cotton – Tajikistan and
- 7 Cotton – Kyrgyzstan
Helvetas Tajikistan resp. **Helvetas Kyrgyzstan** execute the WAPRO activities in Tajikistan and Kyrgyzstan. In collaboration with ongoing Organic Cotton or Water Management Projects WAPRO will proactively combine the work with water user associations with organic cotton production.

WATER STEWARDSHIP –

AN INTEGRAL PART OF WAPRO

The policy component of the project is strongly based on water stewardship ideas. Rather than waiting for policy changes that may come as top down approach, the water users (farmers that need the water for agriculture, but also villagers that need water for household purposes) jointly agree on a reasonable way to share available water resources and on plans to improve the local water situation.

Since 2013, such joint processes can be based on a newly launched international Water Stewardship Standard. Owned and administered by the international NGO Alliance for Water Stewardship (AWS) this set of criteria and indicators specifies the action steps required to achieve a local water management plan that can be accepted by all local water users.

Examples for activities that could be conducted in such an action plan are:

- farmers and their organisations are involved in water measurement
- improved maintenance of small water ways
- improved water distribution plans to achieve right timing and volumes of water delivery
- interaction with local authorities responsible for the maintenance of larger water distribution infrastructures

Within the project the Alliance for Water Stewardship will train local implementers in facilitation skills, how to handle such sensitive discussion procedures and which hydrology facts and legal aspects have to be integrated to achieve reasonable and feasible results.

In combination with new irrigation measures that are implemented by the farmers via the other two project components (push and pull), a jointly accepted water management plan has chances to be endorsed and followed by all involved users. The entry into a new phase of a thoughtful water stewardship can begin.

The Sustainable Rice Platform (SRP) is a multi-stakeholder partnership to promote resource efficiency and sustainability throughout the rice value chain. SRP was co-convened by the United Nations Environmental Programme and the International Rice Research Institute, and collaborates with partners in the public and private sectors as well as the NGO community.

Better Cotton Initiative (BCI) is a not-for-profit organisation stewarding the global standards for Better Cotton. The initiative includes 600 members, among which IKEA, adidas, H&M, Nike, Levi Strauss & Co. and M&S pursue particularly high targets.

EXAMPLES OF PROMOTED WATER SAVING METHODS



Dr. Shafiq Ahmad

Intercropping: Wheat planted into cotton fields; last irrigation flow for cotton serves as initial irrigation for following wheat.



Helvetas Kyrgyzstan

Every second furrow irrigation: Up to 30% reduced water application; less weed since watered area is reduced.



Jens Soth

Soil cover or mulching: Depending on soil quality and coverage, water use can be reduced by 15–30%



Jens Soth

The System of Rice Intensification (SRI) involves a set of farming practices to «grow more with less», e.g. earlier transplantation of seedlings, alternate wetting and drying, or spacing plants wider apart.



Dr. Riyaz Mann

Laser levelling reduces water losses due to uneven fields; application needed only every 5–10 years.



Helvetas Kyrgyzstan

Water measuring: Increasing water productivity requires adequate monitoring and controlling. The Triangular weir is a simple, reliable tool applicable by individual farmers.

COMMON INDICATORS TO MEASURE IMPACT

The complexity of WAPRO requires a monitoring system that delivers comparable results from the six subprojects. WAPRO has therefore defined nine key indicators to be

measured in a gender disaggregated way – some base on data from all beneficiaries, some base on regular case studies with selected farmers.

Impact / Outcomes	Key indicators (m/f)
Impact: Enhanced farming income and increased water productivity for 45000 farmers (f/m) embedded in participatory local water governance schemes and their corresponding regulatory and market frameworks.	<ol style="list-style-type: none"> 1. Number of farmers involved 2. Additional income per farmer 3. Change of water productivity
Push: Rice/cotton farmers (f/m) adopt more efficient and more effective production methods.	<ol style="list-style-type: none"> 4. Adoption rate of improved technologies and/or production systems 5. Enhanced productivity of cotton or rice (t/ha)
Pull: Private sector companies purchase rice/cotton from farmers (f/m) who produce with more efficient and more sustainable methods.	<ol style="list-style-type: none"> 6. Purchase volume of rice or cotton produced under improved methods
Policy: Multi-stakeholder water stewardship plans are implemented.	<ol style="list-style-type: none"> 7. Water productivity taken up in local policy discussions 8. Achievement of Alliance for water stewardship milestones
Macro level: Push-Pull-Policy approach is up-scaled to more farmers and more companies.	<ol style="list-style-type: none"> 9. Number of companies joining WAPRO