

Adaptation and Risk Management for Resilience Building

The approach and achievements of
HELVETAS Swiss Intercooperation



HELVETAS
Swiss Intercooperation

PAKISTAN



Context and rational

Pakistan is ranked amongst the most disaster-prone countries in the world. The flood event of 2010 was the worst, causing a national crisis. But there are many smaller events of inundations, droughts and landslides, which occur regularly and affect particularly the poor and disadvantaged people living in exposed locations. With the effects of climate change these hydro-meteorological disasters will increase, which is exacerbated with the spread of settlements, limited space and unsustainable use of natural resources. One single disaster event can jeopardize decades of development gains. Therefore, **Climate Change Adaptation (CCA) and Disaster Risk Management (DRM)** are crucial for a sustainable development with resilient communities. CCA refers to the efforts to reduce the impacts of climate change. Similarly, DRM aims at avoiding or limiting the impacts of disasters. Both foster a systematic use of strategies and policies, the development of capacities and the implementation of adaptation, prevention and preparedness measures. **Resilience** is a recognised development concept, which refers to the ability to recover from shocks and to adapt to disturbances. The resilience concept helps to connect humanitarian and development actors and promotes multidisciplinary interventions across different sectors. CCA and DRM are reflected in 10 of the 17 Sustainable Development Goals (SDG) to contribute to resilient communities and nations.



Helvetas Swiss Intercooperation (hereafter Helvetas) is a Swiss based development NGO active in Pakistan since 1982 through projects in multiple domains based on trustful local partnerships and solid thematic competences. This paper highlights Helvetas Pakistan's thematic achievements and approach in DRM/CCA towards resilience building.



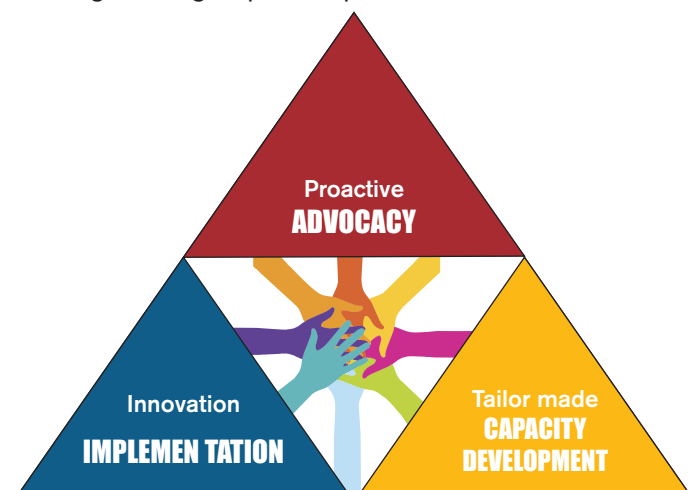
Helvetas' approach

Helvetas' successful project implementation relies on the collaboration with **multiple actors** as a central element for joint **tailor-made interventions** with a long-term vision. This refers to:

- Partners of different sectors and disciplines through longstanding partnerships in the domains of agriculture, water and environment, infrastructure and risk management.
- Partners at different administrative levels, from central ministries to local authorities, and thematic line agencies.
- Partners of different institutions, such as government, academia and private sector, communities and civil society.

Collaboration and partnerships are at the heart of our approach with three mutually reinforcing elements for needs-based actions and an effective use of resources:

- 1) Through the **implementation** of innovative measures, we develop pilots for replication and upscaling. Through applied research, we capture traditional know-how and we link academia with practice.
- 2) **Capacity development** of our multiple partners is crucial. This can be guided through the development or adjustment of a tool and its systematic application, tailor-made training courses or coaching support to hand over competences to responsible actors and institutions by the end of our project interventions.
- 3) Through a facilitator role in **advocacy** we foster a proactive policy dialogue. Evidence-based research and the linkages to multiple actors are our key factors for success to advocate for the needs of neglected groups or topics.



We strive to maximize the **synergies** in adaptation and risk reduction (DRM/CCA) and consider resilience building measures as complementary to the reduction of climate and disaster related risks. In our interventions resilience is built through a **livelihoods approach**, strengthening partners' human, social, natural, physical and financial capacities through improved income activities and the sustainable management of natural resources. We make use of our thematic competences related to water, infrastructure, environment, agricultural economy and skill development. Design effective solutions and to advocate for the importance of ACC and DRM **beyond single sectors or disciplines**.

In our interventions, we consider conflict sensitive project management essential for a smooth and successful implementation. Beyond project management, we support our partners to become recognized, conflict sensitive actors, who contribute to conflict resolution beyond the duration of our interventions.

A balanced participation of women, men and vulnerable groups is crucial in all our interventions. We aim at more than the consideration of women's specific needs, by transforming them into proactive and recognized actors beyond project timelines.



Through decades of experience, Helvetas piloted and adjusted effective practitioner's oriented guidance and tools for project management and implementation.

Mechanisms for effective results

→ a) Systematic and tailor-made guiding tools and methodologies

Tools and methodologies are crucial for systematic assessments. We strive to combine local and scientific know-how for the prioritisation in local and cross-

sectorial action planning. Tailor-made tools are Helvetas' strengths. We developed our own tools and reshaped existing ones. Our risk assessment methodology, through local climate scenarios and climate corridors support farmers to take decisions for their cropping calendar and to improve their agricultural practices.

Example: The **Water Use Master Plan (WUMP)** tool was developed by Helvetas in Nepal and adjusted to Pakistan's context. The WUMP tool is highly appreciated by a wide range of actors in the water sector, since it combines scientific, technical information with local perceptions. Through its participatory process it brings actors together and connects them for joint action planning. The process and results of the WUMP tool support the integration of disaster risks and climate change impacts in local development plans as well as the integration of disaster and climate risks in the water sector.



Project reference: Water for Livelihoods Project 2010-20 (funded by Swiss Agency for Development and Cooperation (SDC))

→ b) Institutionalisation of topics, results and learnings

Over more than a decade Helvetas supported a wide range of partners – farmers, researchers, government extension officials etc. - to bring science to the field through applied scientific studies related to the impacts of climate change for the agricultural sector, practical solutions for farmers and thematic training courses.

Example: To ensure the continuation and ownership of interventions Helvetas supported its partner, the University of Agriculture Peshawar for the establishment of the **Climate Change Center (CCC)** at the university campus. Today the CCC is a financially and operationally independent organisation, which is also supported by the government. The CCC is a recognized academic institution for applied research especially on the challenges faced by farmers' in the wake of changing

climate and its impact on the farming systems. The CCC promotes innovative solutions and is committed to provide evidence for advocacy.

of preventative measures, they were informed about government's duties and connected to them. Today these CBDROs are well recognized institutions with leadership and clearly defined roles for local risk management, strong voices and linkages to advocate where required for external support.



Project reference: Livelihoods Programme Hindukush (LPH) 2008-16 funded by SDC including Climate Change Center, the University of Agriculture Peshawar

Project reference: Build Back Better Project 2015-18 (funded by Swiss Solidarity and Helvetas)

→ **c) Capacity building and leadership at community level**

→ **d) Gender lens for empowerment and advocacy**

Often communities, particularly in remote rural areas, must deal on their own with the impacts of climate change, seasonal calamities and disasters such as floods or water scarcity. Helvetas strives to transform disaster-hit communities into proactive local drivers for change.

Helvetas strives to foster tailor-made solutions through a proactive engagement of women in partner communities. We elaborated a series of gender specific studies to gather evidence for policy dialogue, advocacy, and to foster women empowerment as driver of change. Examples: We studied women's roles and challenges in the rice value chain. When rice farmers switch to alternate techniques in rice cultivation, women's services as transplinters may become redundant. This means that the introduction of new technologies to address water scarcity in rice may unintentionally lead to new risks and challenges such as women losing jobs, which require focussed studies to understand gender based risks and targeted intervention to minimize such risks. Another example of empowerment is strengthening of women CBDROs, who were trained to assess local disaster risks and to elaborate gender sensitive

Example: After the disastrous flood event in 2010 Helvetas supported 38 villages in Dera Ismail Khan District to restore and adapt their livelihoods beyond the recovery phase, to strengthen their preparedness capacities and to improve their collaboration mechanisms with governmental line agencies. This was done through **community-based disaster risk management organisations (CBDRO)**. The CBDRO were capacitated to deal with local disaster situations through prevention and preparedness measures. Through trainings and joint implementation



action plans for integration into village development plans elaborated by their male counterparts. This has facilitated a proactive role of women in DRR efforts in the villages

Project reference: Water for Livelihoods Project 2015-2018 (funded by SDC) and Building Back Better 2015-2018 (funded by Helvetas and Swiss Solidarity)

IV Helvetas success stories:

Herewith two illustrations of Helvetas' engagement to reduce disaster and climate related risk, building resilience based on our triple approach: i) implementation of local innovative measures, ii) tailor-made capacity building of partners and ii) proactive advocacy and institutionalisation for long-term results.

a) Transform disaster threats into opportunities - case study on spate irrigation

Initial situation and rationale for action:

Pakistan's rural population relies strongly on the agricultural production of rainfed land, particularly in the vast areas of semi-dry climate where water is scarce. The same areas are also affected by heavy monsoons, torrential rains and flash floods which are intensified by the effects of climate change and damaged infrastructure, fields and crops. Spate irrigation - in Pakistan called Rudh Kohi - is a traditional water management system of semi-arid areas. In a Rudh Kohi system water from hill-torrents is diverted through earthen weirs, embankments and regulation structures for irrigation through a canal network. Spate irrigation combines, optimizes and buffers perennial and seasonal flows. Based on agreed water rights farmers manage the highly variable water and sedimentation process along the system. During past decades many of the traditional spate irrigation systems became ineffective or abandoned, due to degraded infrastructure and resource conflicts.

Approach and measures:

Helvetas' supports farmers in the Rudh Kohi area since 2000 to transform drought and flood-prone areas to productive agricultural land by the revitalisation of traditional spate irrigation through complementary measures:

i) Rehabilitation and improvement of degraded

irrigation infrastructure

- ii) Capacitation of local institutions: water user associations (WUA) and apex /cluster WUA to operate, maintain and manage their water resources and infrastructure and to solve potential water conflicts jointly
- iii) Documentation and (re-)dissemination of traditional early warning signs of flash floods and dry spells deriving from clouds, flora and fauna.



Results and factors of success:

Helvetas supported the establishment or reactivation of 17 WUA, in 496 villages, who were capacitated and empowered to elaborate and implement 9 Water User Management Plans in a participatory manner.

The direct results refer to improved irrigation systems, which allow an increased agricultural production or at least reduce losses related to flash floods and water scarcity since the spate irrigation buffers seasonal precipitation extremes. Helvetas' work on spate irrigation over more than a decade showed that the continuous focus on systematic capacity building and institutionalisation of the WUAs in spate management was the key factor of success. This even led to further positive side-effects: the WUA are locally recognized institutions, who know to mobilize human power and financial resources to maintain the infrastructure, to manage local water resources and to remediate in case of conflict. WUAs have important social, administrative and political functions since they are well organized and linked to lobby with governmental institutions for support for local development and action planning in the water sector. Helvetas' comparative study analysing the flood events 2010 and 2015 - with locally similar intensity - showed that the flood impacts after the reintroduction of spate irrigation were much lower due to the improved local water management system thanks to improved infrastructure, governance and disaster risk management capacities. Hence, spate irrigation proved to be an effective measure to simultaneously reduce

losses of flood events and to improve agricultural production in the generally dry areas. **Reference:** Why did Floods 2015 cause less damage than in 2010 in Rodh Kohi Areas of Dera Ismail Khan – comparative case study, Helvetas / Intercooperation 2016.

b) Link relief and rehabilitation with development - case study on build back better

Initial situation and rationale for action:

Pakistan's floods in 2010 broke all previous records and created a severe humanitarian crisis. People lost their lives, crops and livelihoods assets, essential infrastructure was damaged and water born disease were wide spread. The event eradicated decades of development gains. In 2015 the emergency situation was overcome and NGOs and government withdrew their humanitarian support despite the absence of development efforts and the incomplete recovery to the pre-floods situation. This vacuum left communities and local institutions in an isolated and vulnerable situation.



Approach and measures:

With the financial support of Swiss Solidarity Helvetas initialised the Build Back Better (BBB 2015-18) project, aiming at restoring productive livelihoods assets and local resilience building through three components: Water sanitation and hygiene (WASH), livelihoods/ agriculture and DRM. The project engaged technical measures with the reconstruction, improvements and innovation of drinking water, irrigation and protection infrastructure. This was combined with awareness raising and capacity building of local actors. The main project partners were local community-based DRM organisation (CBDRO), who were capacitated and empowered to implement, plan, maintain and advocate for local action. The planning and operationalisation of all activities were carried out in close collaboration with governmental partners and local institutions.

Results and factors of success:

Through the BBB project 7'630 households benefit

from improved WASH situation though rehabilitated water supply systems, improved health and hygiene conditions. 11'146 household have access to rehabilitated irrigation infrastructure, disease control and other preventative measures in the agriculture sector. The main result refers to the 111'888 inhabitants of the 28 villages in the project area, who are today more resilient to floods and other disasters, since they can count on local CBDROs, who are equipped and trained to respond to prepare for disasters.

The key factor of success was the intervention focus on productive livelihoods assets aiming at help for self-help to transform disaster hit communities into proactive partners. The project started with an emphasis on hard elements (rehabilitation of infrastructure) and linked then to soft elements through capacity building. New approaches and construction models were piloted and adjusted for replication and upscaling. At the later stage the project focused on coaching, advocacy and linkage with governmental institutions. Strengthening local institutions – the CBDROs – was the recipe for positive changes and impacts beyond the project. This experience is an illustrative show case for linking relief and rehabilitation (LRRD) – which is a well-known but often rather abstract concept – as it connects humanitarian with development action for long term changes. **Reference:** CapEx BBB, Helvetas 2018.

- Helvetas, Experience Capitalisation Building Back Better Project (2018)





Reference list of publications

- Swiss NGO DRR Platform / Center for Development and Cooperation (2017). Where People and their land is Safer - A compendium of Good Practices in Disaster Risk Reduction, http://drrplatform.org/images/DocPub/2017_WOCAT-DRR_Where_people_and_their_land__are_safer.pdf
- Water User Management Plan (WUMP) Experience factsheet <https://www.helvetas.org/Publications-PDFs/wump.pdf>
- Tahir, S. et. Al. (2017). Capitalization of Experiences – Livelihoods Programme Hindukush, Helvetas.
- Rizwan, M.(2015).Comparative Study - Why did Floods 2015 cause less damage than in 2010 in Rodh Kohi Areas of Dera Ismail Khan?, Helvetas.
- Nizami,A and Ali,J (2017) Climate change and women's place based vulnerabilities – a case study from Pakistani highlands, Climate and Development, <https://doi.org/10.1080/17565529.2017.1318742>
- Daud, F. et. Al (2016) Water Use Management Plan (WUMP), Tehsil Draban, District Dera Ismail Khan, Helvetas.
- Hanif,M. Nizami,A and Ali.J (2015) Climate Scenarios 2011-2040 Bajaur and Mohmand Agencies FATA Pakistan, Helvetas.



Helvetas' main clients and donors

- Swiss Agency for Development and Cooperation (SDC)
- European Commission Disaster Preparedness ECHO programme (DIPECHO)
- Swiss Solidarity
- International Development Research Centre (IDRC)
- International Federation of Organic Agriculture Movements (IFOAM)
- Concern Worldwide
- Ministry of Foreign Affairs (MOFA-Netherland)



Helvetas' services and products

- Project implementation: including local partners
 - Background studies: Climate change scenario etc., documentation of local evidence
 - Tools: Thematic and user-oriented development and adjustments
 - Capacity development: training material and events
- ...any many more tailor-made products and services upon request.

VIII Helvetas' contact

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