

ZUR no. 10

ZEF-UNESCO Rivojlanishlari*

November 2009

Science brief from the ZEF-UNESCO project on Sustainable Management of Land and Water Resources in Khorezm, Uzbekistan

Following the Innovation: developing a participatory approach in Uzbekistan

Summary

Complex agricultural problems demand innovative solutions. Agricultural research delivers potential solutions but does not always include implementing these. This brief shows an approach the ZEF/UNESCO project in Uzbekistan follows to make scientific solutions suitable for uptake by potential users by closely collaborating with them.

The ZEF/UNESCO project in Uzbekistan developed an approach for implementing, improving and adapting innovations identified by the project in close cooperation with target groups. This method is popularly called "Follow the Innovation (FTI)".

The approach focuses on developing the capacity to jointly innovate through mutual knowledge-sharing and learning amongst scientists, farmers, resource managers and policy makers. The approach integrates research with local stakeholders in their local setting, and advocates joint testing, validating and finalizing of the developed innovations as outlined in figure 1 below. Once local stakeholders have adopted the innovation at hand, they are left to adapting them according to their local needs. These adaptations are monitored and, if possible and suitable, fed back into the overall design of the innovation at hand.

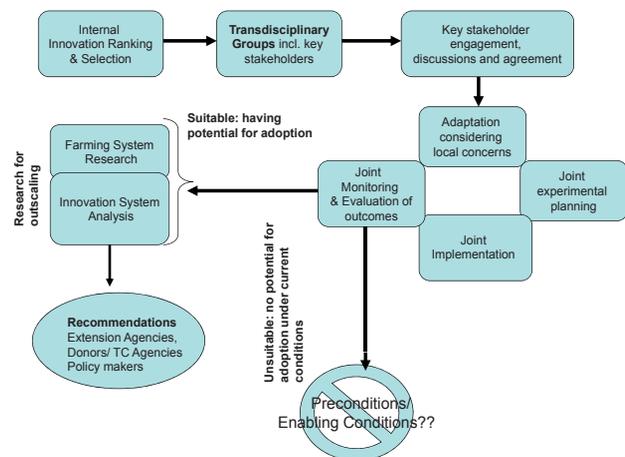


Figure 1: Follow-the-Innovation: The approach

Afforestation for rehabilitation of degraded lands

A large proportion of land goes out of production annually in Uzbekistan due to land degradation triggered by cotton-wheat monoculture, water scarcity, and salinization. Innovative project research showed that three tree species could profitably be grown in Khorezm province on lands



Zentrum für Entwicklungsforschung
Center for Development Research
University of Bonn



German Ministry
for Education
and Research (BMBF)



United Nations
Educational, Scientific and
Cultural Organization



unfit for arable crop production, for non-fruit contiguous tree plantations. In cooperation with the Forest Research Institute project's scientists managed to identify suitable lands and to motivate two farmers to test the potential on their farms. The required samplings were provided by the Forest Research Institute. Now, the team collaboratively monitors the germination and growth of trees against an agreed set of indicators to finally ascertain the potential under real farm conditions in the Khorezm region.



Picture 1: Facilitated Group Discussion to assess WUA performance (Photograph by Anisiya Kudryavtseva)

Improving the Working of Water User Associations (WUAs)

In 1999 the Government of Uzbekistan assigned the water distribution and management of the water infrastructure to Water User Associations (WUAs). Consequently, WUAs are until today regarded by many water users as the extended arms of state water management structures, not as bottom-up organizations accountable to the water users. The institutional weaknesses of many WUAs include lacking participation in their decision-making processes, an inability to collect fees, to operate and maintain infrastructure adequately, as well as a suboptimal performance of the irrigation system. These barriers to successful water management are now collaboratively addressed by a trans-disciplinary working group comprising scientists, research assistants and members of the local WUA Ashirmat, the local village administration as well as the local community with the aim to develop Ashirmat WUA into a locally accepted well-functioning WUA. During its first general assembly since being established, the WUA shared its annual plan and budget with all members. Furthermore, the group jointly assesses the progress and revises activities regularly. A monitoring evaluation strategy and impact assessment indicators have been formulated, and the relevant data are currently collected.

Concluding remarks

The first steps towards the local reevaluation of the innovations and according adjustments to the local situations have successfully been made. Yet at the same time a number of challenges have arisen. Identifying the problems at hand and adjusting the innovations accordingly is often very time-consuming. Perennial crops and trees for example require many years to mature before the actual costs and benefits can be assessed. Similarly, the building and institutional strengthening of a WUA requires continuous interaction over a long period of time.

As farmers in Khorezm currently sow 'state plan' crops

on about 80-85% of their farm area and utilize the rest for growing cash crops, such as melons, vegetables, tomatoes and fodder, it became obvious that while several farmers are keen to experiment with innovative alternatives related to 'state plan' crops, they perceive state permission as an essential pre-condition, even on poorer lands. The farmers consider unavailability of appropriate inputs and services as a bigger production constraint than lack of knowledge. Innovations that do not interfere with the timing and duration of state plan crops (for example short duration fodder crops, mung bean, etc.), and those related to crops that do not fall under state planning might have better chances for out scaling.

These participatory processes of stakeholder interaction, while time consuming, are most promising for discerning between 'promising' and 'appropriate' innovations and the needed adjustments that would be required to convert the 'promising innovations' into 'locally appropriate' innovations and identifying preconditions for ultimately assuring long-term, sustainable use.



Picture 2: FTI collaborating farmer Muborak and her family planting the nursery of trees on marginal land in their farm (Photograph by Elena Kan)

References

- Chambers, R. (2005) *Ideas for Development*. London: Earthscan.
- Ryan, B., Gross, N. (1943) 'The Diffusion of Hybrid Seed Corn in two Iowa Communities' *Rural Sociology* 8: 15-24.
- Douthwaite, B. (2002) "Enabling Innovation: A Practical Guide to Understanding and Fostering Technological Change". London: Zed Books Limited.

IMPRINT

Authors:

Mehmood UI Hassan, Anna-Katharina Hornidge, FTI-Team. All the authors work or are affiliated with the ZEF/UNESCO project in Uzbekistan.

Editor: Alma van der Veen (ZEF)

* ZUR is an abbreviation of ZEF-UNESCO Rivojlanishlari, meaning ZEF-UNESCO Developments. The ZUR science briefs publish scientific project output with policy relevance on a regular basis.

Published by the Center for Development Research (ZEF)

University of Bonn, Germany

Uzbekistan Project Office

phone: # 49 228 731917 or 731865

e-mail: khorezm@uni-bonn.de

homepage: <http://www.khorezm.uni-bonn.de>