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## VILLAGES DEVELOP STRATEGIES TO ADAPT TO CLIMATE CHANGE (UZBEKISTAN)

A useful method for communities to ensure collective landscape governance, reforestation and new income options

An innovative process in Uzbekistan's foothill regions helps rural communities assess the effect of climate change on their land and water resources, so they can develop adaptation strategies to ensure food security and generate income. The approach offers useful lessons and an excellent blueprint for communities and rural development planners in many foothill areas and dryland countries.



The priority setting diagram developed by Kadok inhabitants in a round of consultations (left); some members of the elected village core team of the Foothill User Group.

*Source: "pictures from project managers"*

### Points to Consider

- A village or community coordination structure is needed for the group effectively
- The group should understand the negative effects and threats of changing climate patterns on the group's natural resource.
- The external facilitator's role is 'hands-off' – asking questions and proposing a synthesis of the opinions given.
- The use of drawings (as in picture above) is crucial to having a clear process and securing buy-in of all parties involved.

The inhabitants of the Kadok village in Uzbekistan have experienced progressive deterioration of their foothills and farming system due to changes in climate patterns – and from overuse of the land by un-checked logging and livestock grazing

When the project started it was common opinion that the village might be abandoned after some decades due to increasing deterioration of natural resources and in consequence income options. Villagers invested already huge amounts in education of children to allow move to urban areas.

### Purpose

This brief is intended to inform local-level extension and rural development agencies and development partners (including non-governmental organizations), or research teams, of a process that communities can use to better understand the threat of climate change and design their strategy to adapt to the situation – by applying crop and income diversification and natural resource management approaches.

### Suitability

This technique can help communities in any foothill landscape or mixed crop-rangeland areas in the MENA region, especially areas that are losing production and income due to land degradation or over-use. This is a low-cost method to enable the self-help potential of remote villages to adapt to climate change and to contribute to 3 Rio conventions

### The project in numbers

- 6000 people benefiting
- 6000 hectares of land affected
- 100,000 Euro
- 15,2% of Uzbekistan is covered by foothills.

### Partners

- Ministry of Agriculture and Water Resources of the Republic of Uzbekistan (policy support)
- Khokimiat Nurata (district administration)
- Navoi Branch of Uzbek Scientific
- Production Center for Agriculture
- Mahalla Kadok (local administration; including all aksakals/elected village leaders)
- ICARDA
- Samarkand State University,
- Uzbek Research Institute of Karakul Sheep Breeding and Desert Ecology

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## Process to create a 'climate smart' village strategy

To face this crisis, the Kadok community set out to develop a 'climate-smart' strategy and action plan to rehabilitate and better manage the surrounding farming system and natural environment for the years to come. Working with a research/facilitator specialized in natural resource management; the inhabitants did an assessment of their current situation and made a plan for rehabilitating degraded land and diversifying its production system.

The process started with a climate change self-assessment done by the village inhabitants that represented the entire population. The group developed their plan by asking two questions:

- If our current practices continue, how will our village look in 40 years (2050)?
- What changes and activities do we need to do to stop and reverse the situation?

The group's response to the first question was that if the situation continued as today, the village might not have income options anymore and outmigration might put the existence of the village at high risk.

## Scenario for the future

With the scenario in place, the next step was priority setting. The community's preference was for reforestation of foothills using an environmental governance scheme, shrub cultivation for firewood, water harvesting, producing medicinal plants that were once grown there, and developing new income options that don't require more water use.

Long-term land management was also identified as a crucial issue. The community felt that the continued future health of their natural environment depended on having clear agreements on land use and protection, to ensure that current rehabilitation efforts were not lost over the coming years.

Several options for a governance scheme were debated. These included three options for sharing benefits: each household may use as much as they want; each household may use according to the number of livestock; each household will get the same share (based on prohibited grazing and collective manual harvest days). The consensus was for the equal sharing of benefits between all families.

The final climate change adaptation plan includes: rehabilitation of the foothills; of forest (medicinal trees/shrubs) and rain-fed forage shrubs with strong root system and development of income sources not increasing water demand (one day recreational tourism, climate change information days for foreign tourists and Uzbek schools, handicraft).

Governance – agreements for community management of forest and forage resources

The community manages its shared resources through a core team that sets guidelines and organizes collective harvest days and organizes collective work to rehabilitate the foothill-forest.

The core team also builds consensus and gathers opinions by facilitating discussions on specific topics and summarizing different options and needs voiced by wider community group. The management focus is clear. The key criteria for group decisions on land use and development of the resources centers around the question:

Will reforestation efforts lead to increased benefits within 5, 10, 15 years?

The long-term sustainability of the rehabilitated site is ensured by two types of agreements. The first is developed and signed between all households of the village, stating guidelines for resource use, collective activities and responsibilities. The second is signed by the elected village leader and the leaders of all neighboring villages to frame the agreement on resource use and allocation, especially the issue of livestock grazing locations and rights.



Climate change increases the risk of hail, inducing mudflows that destroy the grape cultivations - the village's primary income source.

Source: "pictures from project managers"



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## At a glance: the Mahalla Kadok climate change adaptation strategy

### Strategy

- Reforestation of foothills, planting a combination of indigenous medicinal trees and shrubs, forage shrubs with strong roots that prevent mudflows.
- New income streams provided by the sale of products such as roship, medicinal plants and almonds.
- The rejuvenated landscape will also sustain livestock production.
- Facilities and natural areas for tourist visits from nearby cities.
- Production and sale of handicrafts.
- Climate change information days for tourists from abroad and schools

### Governance

- Consensus of all villagers on the problems faced and need for an adaptation strategy.
- Agreement developed and signed between all inhabitants..
- Agreement signed between village elected official and counterparts in all neighboring villages.

