

Because of their vital contribution to family well-being and greater vulnerability, CARE's strategy in Tajikistan focused on women.

CARE in Tajikistan: Women as Agents of Adaptation

Background

It seems strange to stand on top of a cold, snowy mountain in Tajikistan and be concerned about the effects of global warming.

But that's the irony to anyone who's not a meteorologist or environmental scientist. A slight warming of the earth's average temperature has wide and varied consequences—some dramatic, others simply counter-intuitive to most of us. Climate change impacts will differ greatly from place to place, even within the same region. In Tajikistan, which has a complex geographic and climatic profile due to its mountainous terrain, the Varzob District provides an excellent study of this phenomenon.

While snow volume appears to have lessened at higher elevations, snow stock is growing at lower elevations and in the foothills. Places like Panjhok, in the middle range mountains, are enduring longer winters and bigger snow packs each year. Meanwhile, villages at lower elevations often battle mudflows, landslides and erosion—the result of rapid glacial melt and changing rainfall patterns. Climate data from the last four decades shows that temperatures are increasing in the lowlands and decreasing in the highlands.

Despite the scarcity of arable land, the Tajik people are heavily dependent on agriculture and natural resources, which makes them extremely vulnerable to environmental degradation and climate change. At the same time, decades of unsustainable land management, including widespread deforestation,

has made the problem worse by exacerbating soil erosion and avalanches. Things will only get more difficult as the area experiences to further impacts of climate change.

The Project

CARE implemented the Adaptation to Climate Change in Tajikistan (ACCT) Project to help villages in the Varzob District adapt to climate change. In addition to strengthening adaptive capacity at the household level, CARE sought to increase the capacity of local government and non-government organisations (NGOs) to address the impacts of climate change.¹

Understanding Climate Vulnerability

To better understand the complexity of climate change impacts in Tajikistan, the ACCT Project focused on three villages in Varzob District, located at different altitudes within the same watershed and each facing their own unique issues. We started by conducting vulnerability assessments to determine how climate-related risks were affecting residents' well-being.

The major changes observed by surveyed households included increasing snow pack, a shifting and lengthening of the winter season, and increasingly erratic rainfall.

All of these observations are consistent with the meteorological data for the area, providing an excellent opening to introduce the topic of climate change to target communities.

When assessing the consequences of these changes for local livelihoods, communities focused on the sensitivity of livestock, gardens and orchards to climate risks. In addition to the challenges posed by the changing winter season and increasing snow, participants were concerned with mudflows, landslides and erosion, all of which are worsened by erratic rainfall.

Women as agents of adaptation

Armed with a clear understanding of climate impacts on household livelihoods, the project identified those household-level adaptation strategies most likely to reduce the impact of climate-related shocks and stresses.

When designing adaptation strategies, we focused on women, because of their vital contribution to family well-being, and their greater vulnerability. Social and religious mores keep women closer to home, and huge numbers of men have migrated to Russia for work, resulting in large numbers of women-headed households. Also, polygamy is on

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Adaptation strategies such as cold frames result in increased food security during harsh winters.



the rise, leaving many “first wives” struggling as their husbands support additional families. For these reasons, women are often the most vulnerable people of these communities. Our adaptation strategies had to be “user friendly” for women, and doable within the confines of their domestic responsibilities.

Here’s a quick snapshot of activities designed by and for community members:

Household Cold Frames

Cold frames were distributed to especially vulnerable households in the target communities. These simple wood and glass-frame structures act as small-scale greenhouses for growing herbs and vegetables. They are ideal for parsley, basilica, green onions, radishes, carrots, peppers, tomatoes, cucumbers, cabbages and turnips—even strawberries. By sheltering seedlings from inclement weather, cold frames help community members start seedlings earlier in the spring and increase the growing season. Some households are successfully growing cold-hardy vegetables such as greens all year round, achieving up to four harvests per year.

Food Preservation and Drying

Women have received hands-on training in food preservation and drying, giving them increased security and variety of food over the winter season. Preserved foods include apples, pears, peaches, grapes, tomatoes, cucumbers, carrots, eggplants and onions. In some cases, women were able to sell surplus products, providing a much-needed source of income for the family.

Energy-Efficient Stoves and Kettles

CARE introduced villagers to technologies that can boost the efficiency of stoves and kettles. These are being demonstrated in schools and government offices in each community. This is an adaptation strategy that also reduces demand for fuel wood for heating and cooking, mitigating climate change in the process. The project estimated that the improved stoves can reduce fuel demand by up to 20%.

Household Insulation and Energy Efficiency

Working with partner NGOs, CARE has helped vulnerable households learn how to use local materials for home insulation and energy efficiency. In addition, a school is being retrofitted for energy efficiency to better serve students and function as an energy demonstration site for the community.

Partnerships to Support Adaptation

Adaptation must occur at many levels in order for household-level efforts to be successful. The ACCT Project formed partnerships with local government *Jamoats* and NGOs to increase their capacity to address climate change risks. We also established an Advisory Group comprised of experts in government, research institutions and NGOs, as well as representatives from the Community-Based

Organisations (CBOs) that work with the project. This group provided advisory services to the project on strategic and technical issues.

Results

Early results from the project indicate that the activities had a positive impact on reducing household vulnerability to climate change. Successes include:

- Increased food security for vulnerable households during the difficult winter season. The use of cold frames has extended the growing season by approximately four months, and in some cases is providing fresh vegetables all year round. Preservation of fruits and vegetables is providing increased variety to the winter diet, and a source of income for some poor households.
- Transfer of technologies for adaptation and energy efficiency. Based on the technologies demonstrated in the project communities, 12 households have constructed cold frames with their own resources, and five households have retrofitted their houses to make them more energy efficient. This replication of project activities indicates that the technologies promoted were appropriate to the local priorities and context.
- Women are empowered to make decisions in their households. Women felt empowered by the ability to generate food and income for the family. This ability also increases the likelihood that they will be allowed to participate in more of the decision making—key to reducing household vulnerability.
- *Jamoats* are now actively engaged on climate issues. The three target *Jamoats* for the project have all incorporated climate change issues into their annual plans. They have also taken action to raise awareness of environment and climate issues and sustainable local development at the village level.

Conclusion

CARE’s experience in the field clearly demonstrates that every step counts: even the most practical and simple adaptation strategies at the household level, such as using cold frames or learning to dry food for preserving, can reduce vulnerability to climate change. Most importantly, two results of a different kind are noteworthy:

- The increasing involvement of women in decision-making. Since they are the ones most affected by climate changes, their empowerment can contribute significantly to improving household wellbeing, and
- The engagement of key stakeholders in shaping national level policies. It is this type of participatory multi-level approach that will enable vulnerable communities to effectively tackle the impacts of climate change.

Notes

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