

### OBJECTIVES

- **Contribute to socio-economic development** and poverty reduction in Tajikistan by supporting more profitable integrated farming systems ;
- **Encourage environmental sustainability** by raising awareness of good practices for the use of agricultural fertilizers and domestic energy management ;
- **Mobilize** the local authorities and civil society around a regional development process.

### BENEFICIARIES

#### The project is primarily aimed at:

- Female-headed households;
- Large families in difficulty (more than five children or including disabled members);
- Unskilled farm laborers (under 30 year's old);
- Small farmers (less than 0.04 ha per person).

### PROJECT BACKGROUND AND CHALLENGES



**In Tajikistan**, the proportion of people living below the poverty line can reach 74%. This holds true in the rural province of *Sughd*, one of the poorest regions in the country located in the mountains up north (*Pamir Altay*).

**Living conditions in this area are extreme:** during the particularly long and rigorous winter, temperatures can drop to below -15°C and rainfall is dramatically low (90 mm/year). When the region is in the grip of winter, economic opportunities are severely squeezed.

The very short farming season (May to August) is, in addition, constrained by substantial degradation of the soils and natural resources. Intensive use of chemical fertilizers during the Soviet era caused long-lasting contamination of the soil. Besides, until 1989 the supply of gas and oil was centralized by the USSR. After its collapse, the population massively decided to use firewood but the growing scarcity of the resource led to an energy crisis during the harsh winter of 2005/2006. Afterward, the populations started to use animal dung as a source of heating but the abusive use of this resource as a fuel rather than a fertilizer has exacerbated the soil fertility issue, especially considering that the biomass, increasingly threatened by human activity, no longer plays its role in purifying the soil.

Today, households in Tajikistan dedicate 30% of their budget to the purchase of fuel (over the winter months). Given their very low income, this seasonal expense prevents them from investing in the necessary fertilizers when spring comes around. As a consequence, **farmers are kept in an extremely precarious situation.**

The province also suffers from a large-scale rural exodus of the male population and mass widowhood due to the civil war (1992-1997). This situation has led to a high proportion of female-headed households. Women, however, are the most exposed to precarious living conditions because they suffer considerable discrimination. Firewood is nowadays the main source of domestic energy but the intensive gathering of wood is very time-consuming for the women and children who have to undertake this arduous chore to the detriment of their education or other income-generating activities.

The local government authorities are aware of this precarious balance but lack the necessary skills, information and resources to take appropriate action. This project aims to offer concrete solutions to bring about an **overall improvement of the living conditions for the 120,000 inhabitants** from the Ayni and Asht districts, in line with the national poverty reduction plans.

## ACTION PROGRAM 2010 - 2013

The project aims to develop a sustainable process that will improve the living conditions and economic opportunities of around 1000 vulnerable rural households, particularly those headed by women. To do so, GERES has chosen appropriate domestic energy solutions, primarily passive solar and thermal insulation techniques. Reducing the need for fuel will reduce the pressure on biomass resources. In addition, the bioclimatic techniques will be used to reinforce the means of production, preservation and distribution of agricultural products.

### Activities

**250 insulated houses** with the passive solar techniques;  
**100 passive solar greenhouses** enabling vegetable production to continue in the winter season;

## IMPACTS AND EXPECTED OUTCOMES

### Social impacts

- Providing income-generating opportunities to stem the rural exodus;
- Supporting the economic activities of households in difficulty;
- Alleviating the chore of gathering wood for women and children.

### Institutional impacts

- Providing the local authorities and civil society with support in agricultural and environmental management;
- Developing dialogue between stakeholders.

## PARTNERS

### Technical partners

- ASDP Nau (Agency for the Support of Development Processes);
- CAMP Kuhiston (Central Asia Mountain Partnership);
- Governments of the districts of Asht and Ayn;
- Mahalla community organizations.

### Financial partner

- European Union.

**30 solar poultry farms** designed to diversify farming activities in the province;

**22 bioclimatic cellars** capable of preserving the roots, seeds and bulbs of cultivated species so that they can be sold in the winter;

**Establishing of 2 co-operatives** to improve market access for small farmers;

**Raising awareness** of energy saving through media campaigns and information meetings;

**Dissemination** of energy-efficient equipment and methods (ex: improved cookstoves that reduce energy consumption by 40%);

**Mobilization and involvement** of local authorities, communities and civil society in the planning of the region's economic and social development.

### Environmental impacts

- Preserving biomass;
- Improving soil quality.

### Economic impacts

- Boosting small farmers' income by increasing and improving agricultural activity by 30% (the farming season is extended)
- Developing new job opportunities;
- Training of craftspeople and development of new sustainable economic sectors;
- Reducing domestic energy consumption.



Passive solar greenhouse to grow vegetables during the winter season

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