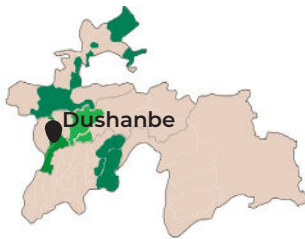




## GERES | ACCESS TO CLEAN ENERGY AND ENERGY EFFICIENCY FOR ALL



### MORE THAN 18,000 DIRECT BENEFICIARIES IN TAJIKISTAN BETWEEN 2011 AND 2020

- 70 Low-Energy Consumption Houses completed and 157 houses under construction
- 400 houses thermally renovated
- 800 wooden double-glazed windows (1,430m<sup>2</sup>) and improved doors disseminated
- 1 Low-Energy Consumption school built (420 m<sup>2</sup>, 6 classrooms)
- 2 schools (110 children) and 3 hospitals renovated
- 91 Greenhouses built (more than 5000 m<sup>2</sup>)
- 46 Bioclimatic cellars built
- 630 stoves and heat exchangers disseminated
- 219 stove makers trained
- 107 masons, 120 carpenters and 16 architects trained
- More than 8,000 participants in energy efficiency info-sessions
- 20 Low-Energy Consumption houses designs available
- 2 Green Loans schemes with partner banks
- More than 2000 tons of CO<sub>2</sub> saved annually

### LOCAL AND GLOBAL CHALLENGES

Energy is the essential to everything we do, from growing and transforming food, to transporting goods and people, to lighting and heating houses, schools and hospitals. Energy is the basis of all socio-economic development. However, energy is also very unequally distributed and consumed: in rural Tajikistan, access to electricity remains low and unreliable, households use wood for up to 85% of their cooking and heating needs, and spend up to 25% of their monthly budget on energy needs while the most vulnerable ones cannot afford heating at all. While relying on burning biomass, energy consumption aggravates the issues of deforestation and land erosion. When based on wood or fossil fuels (coal, oil and gas), it contributes to indoor and outdoor air pollution which increasingly chokes our cities and affects health all over Central Asia.

The use of fossil fuels also leads to carbon dioxide emissions that are responsible for climate change, the most pressing issue of our generation, and probably the biggest challenge for the development and future of Tajikistan.

### GERES IN TAJIKISTAN

Geres has been working in the country since 2011 to increase access to clean energy and improve the living conditions, livelihoods and wellbeing of the most vulnerable populations. Our team is mostly active in two key sectors: rural economy, and habitat & construction.

**Rural economy |** The majority of the population is rural and depends on agriculture and livestock for a living. Due to extreme climatic conditions in mountain areas (covering 93% of the country), the cultivation period is short and the range of products is limited. Geres is active in the construction and dissemination of

- **solar greenhouses** to extend the cultivation season, improve nutrition and increase incomes.
- **bioclimatic cellars** to keep agricultural products several months after the harvest in optimal conditions without any energy input. This enables producers to sell their products at a higher price and consume them during the rest of the year.

**Habitat |** In rural areas, the immense majority of houses are built without insulation. In winter, this results in the burning of large quantities of wood, dung and coal for a very limited comfort, high energy bills, extra heating chores for women, air pollution, and deforestation. In summer, the scorching heat makes houses barely inhabitable. Along with local authorities and partners, Geres is working on :

- **Renovation of houses** to increase thermal comfort, reduce fuel consumption by up to 40% and **decrease energy poverty** for the most vulnerable households
- Development and dissemination of **low energy consumption houses** in order to decrease wood and coal consumption by more than 60%
- Renovation and construction of **schools and public buildings**
- **Technical training** of architects and construction workers
- **Awareness raising** on energy efficiency among the population
- Dissemination of **fuel-efficient stoves**
- **Facilitating access to credit and green finance** for energy efficient constructions and renovations, in collaboration with development banks and micro-finance institutions.

In addition, Geres actively promotes the concept of **climate solidarity** and solutions for resource and energy efficiency in forums, academic conferences and towards the host government. Geres is involved in policy dialogue and proposes its services in the field of energy auditing, central heating systems, development of insulating materials and biofuels together with the development of climate adapted housing solutions.

## GERES, ACTING FOR CLIMATE SOLIDARITY

Set up in 1976, Geres is an international development NGO working on the improvement of living conditions and on promoting a development that is fair, environmentally sustainable and climate compatible. Geres works to advance the energy transition along with communities and actors in the field. In order to trigger and accompany major societal changes, Geres encourages the development and dissemination of innovative and adapted energy solutions, supports territorial climate and energy policies and mobilizes stakeholders around the principle of Climate Solidarity: taking necessary action for the climate while acting for the most vulnerable.

With 134 collaborators based in 10 country offices, Geres is active in 19 countries, on 3 continents and implements 89 projects worldwide. In more than 40 years of existence, Geres has implemented 440 projects in 46 countries.

Some of the results include:

- 2 057 000 tonnes de CO2 avoided on 4 carbon projects
- 33 600 hectares of forests preserved in Cambodia
- 330 000 m2 of bioclimatic constructions in Central Asia
- 40 000 litres of biofuels produced by small farmers in West Africa.
- 81 000 people sensitised to energy efficiency in France

## PRESENT AND PAST PROJECTS IN TAJIKISTAN

### Pilot Initiative for Green Homes in Tajikistan (2015-2021)

Donors: French Development Agency (AFP) and Abbé Pierre Foundation

### School Greenhouses for Nutrition (2019-2020)

Donor/Partner: Caritas Switzerland

### House Renovations for Energy Efficiency and Food Security (2019)

Donor/Partner: World Food Programme

### Low Energy Consumption School construction project in Rudaki (2018)

Donors/Partners: Humanisa and the Building and Civil Engineering School of Pau

### Private Sector Development (2013-2015)

Donors: GIZ and UKAid

### Sustainable Rural Development Project (2011-2014)

Donors: European Union, UK Embassy in Tajikistan, NZ Embassy in Russia

- Low Energy Consumption (LEC) houses lead to a **60% decrease in energy consumption.**
- If all houses built in Tajikistan were LEC houses, more than **3 million tons of CO2 could be avoided by 2030.**
- With 97% of hydroelectricity and a carbon footprint of 0.6 tons CO2 per capita per year, **Tajikistan could be the first carbon neutral country in Central Asia.**

## PARTNERS

The main partners of Geres in Tajikistan are the French Development Agency (AFD) and the Abbé Pierre Foundation. We work in partnership with local authorities, the Department for Construction and Architecture, universities, the bank Arvand and First Micro-Finance Bank (FMFB), as well as international partners and local NGOs.



### MORE INFO



[www.geres.eu](http://www.geres.eu)

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