

# 'Warm Comfort' and energy saving microloans - Tajikistan

## Organisation implementing the project

[LLC MLO Madina va Hamkoron](#) (Madina va Hamkoron) is a Micro Loan Organisation (MLO) working in the Gorno Badakhshan Autonomous Region of the Republic of Tajikistan (Gorno Badakhshan). It was founded in 2009 as a private business by [Madina](#), a women-led NGO (Non-Governmental Organisation).

Between 2002 and 2006, Madina participated in an [International Organisation for Migration](#) (IOM) program studying the impact of micro-credits (sustainable lending to people on very low incomes)<sup>1</sup>. The program convinced them about the effectiveness of access to finance in helping to tackle poverty.

In 2006, Madina created their own micro-lending fund to help the poorest and most vulnerable people in the region. The fund became the basis for Madina va Hamkoron. In 2017, the organisation expanded, merging with two small Micro Loan Organisations (MLOs) and opening new branches in other parts of Tajikistan.

The mission of Madina va Hamkoron is to develop small and medium-sized businesses by providing financial and non-financial services to the most vulnerable. The organisation currently employs 19 people. They provide loans for a range of purposes including business development, education, family planning, home improvements, and purchasing consumer goods. In addition to financial services, Madina va Hamkoron also provide freely accessible workshops on budgeting and finance. Since they began operating they have provided over 15,000,000 TJS (Tajikistani Somoni, USD\$1,636,425) to 9,000 customers.

This project continues two initiatives which began in 2008, supported by [GIZ](#) (German Society for International Cooperation GmbH, a German development agency providing services in international development cooperation): 'Sustainable Management of Natural Resources in Gorno-Badakhshan' and 'Support of Micro-Finance Services in Rural Regions of Tajikistan'.

## Project Description

This project is part of an effort to increase social and environmental sustainability in Gorno-Badakhsh through supporting local economies, reducing fuel consumption, improving the well-being of households and promoting the use of alternative energy. It centres around 'Warm Comfort', a green microloan product. Green microloans are specifically targeted to very low-income households to fund energy saving works.

Sustainable lending is combined with awareness-raising about heat insulation, energy efficiency and environmental sustainability. Local carpenters from the cooperative Zindagi (a partner in the project) are trained through the project and manufacture locally as well as fit energy saving and thermal insulation products. Payments for energy-saving and heat insulation work are made directly to carpenters, ensuring high-quality work is carried out. Loans are repaid by customers at 2.5 per cent interest over 12 months.

---

<sup>1</sup> <https://www.investopedia.com/terms/m/microfinance.asp>

---

Products offered by Madina va Hamkoron through 'Warm Comfort' include:

- doors;
- windows;
- fast furnaces;
- solar water heaters;
- energy efficient stoves for heating and cooking;
- hydraulic ram pumps (cyclic pumps powered by water);
- rain water catchment systems; and
- drip irrigation systems.

Up to January 2018, a total of 960 green microloans have been issued by Madina va Hamkoron. This has allowed low- income households in Gorno-Badakhsh to purchase more than 750 doors and windows, 200 fast furnaces, 10 solar water heaters, and 358 stoves.

Zindagi currently has a membership of more than 70 carpenters. Four local resident 'repair teams' have also been formed through the project.

Overall 1,046 households have purchased energy-saving technology. This has benefitted a total of 8,368 people in villages across the region.

The project is currently ongoing.

### **Aims and Objectives**

The project objective is to improve living conditions and reduce the strain on natural resources in Gorno-Badakhsh through simple energy efficiency adaptations.

Many homes in the region are poorly insulated and the stoves typically used for cooking are inefficient. This means large quantities of fuel are needed for heating and cooking. People often collect firewood and shrubs to burn, which has a negative impact on the environment. The time and energy needed to gather fuel also places a strain on households.

There has been a high level of uptake for the products, although the scheme has not been widely advertised. A needs analysis suggested a demand for the products and microloans equal to 500 people per month. Madina va Hamkoron intends to continue marketing 'Warm Comfort' loans by increasing their portfolio, although a specific target is not set yet due to financial constraints.

### **Context**

The [Gorno-Badakhshan](#) autonomous region is in Tajikistan in the Pamir Mountains (some of the world's highest mountains at the junction of the Himalayas).

Formerly part of the Soviet Union, Tajikistan received substantial subsidies from Moscow until it gained independence in 1991. After this a five-year civil war broke out which had a devastating impact on the country's already weak economy. In 1992, the local government in Gorno-Badakhshan declared independence from the Republic of Tajikistan.

---

Gorno-Badakhshan has an estimated population of around 250,000 people. Human settlements occupy a tiny proportion of land, scattered across small villages surrounded by mountains. Homes can get very cold, and many are in disrepair with old or broken doors which let out heat. Poor heating combined with excessive fuel burning can lead to health problems including respiratory and inflammatory diseases. The need to collect fuel from the local area (wood and shrubs) places a strain on the environment and on people because of the amount of manual labour it requires.

Economic opportunities are scarce, and many people are dependent on money sent to them by relatives who have migrated to Russia and Kazakhstan. In recent years a growing number of people have been forced to return to the region so the income from repatriated funds has decreased, and there are few employment opportunities. The remoteness of the area also means prices are high compared to other parts of Tajikistan.

## Key Features

The 'Warm Comfort' green microloans scheme was developed by four micro-finance institutions: Madina va Hamkoron, Haqiqi-Jahon, Rushdi Ishkashim and Rushdi Vodii Zerafshan, with support from [GIZ](#).<sup>2</sup>

The scheme emerged from the GIZ project, 'Sustainable Management of Natural Resources in Gorno-Badakhshan', which has also worked with local craftsmen to develop products for thermal insulation - such as double-glazed windows and well-fitted wooden doors. This led to the formation of the Zindagi cooperative in 2010, which has become a partner in the 'Warm Comfort' scheme.

Madina va Hamkoron visit rural populations to talk to people about heat insulation and microloans. If a customer is interested they are connected with a local carpenter from the Zindagi Cooperative, who assesses the works they require.

Once the customer has agreed works with their carpenter they are assessed by a local loan officer. The loan officer provides information which is then assessed by a loan committee. If approved, Madina va Hamkoron pay Zindagi directly to carry out the works required (including manufacture and delivery). Products and labour are guaranteed for 12 months.

Loans are repaid over 12 months and monitored by local loan officers.

Many of the carpenters recruited by the Zindagi cooperative are returning migrants who are no longer allowed to live and work in Russia. Most had been working in construction and have brought these skills home with them. This group provides a source of skilled labour for the project, which in turn provides a new livelihood for them. Zindagi trains its carpenters in the manufacture and fitting of thermal insulation and alternative energy products. The cooperative has members present across the different villages in the region. As products are constructed locally, they can be offered to customers far more cheaply than anything they could order from the nearest administrative centre (urban area).

Madina va Hamkoron is able to increase their support for Zindagi carpenters by ordering their products in bulk in advance and selling them on through 'Warm Comfort' green microloans.

---

<sup>2</sup> [http://www.naturalresources-centralasia.org/assets/files/2012-05-22\\_Factsheet%20Warm%20Comfort\\_TJ\\_EN.pdf](http://www.naturalresources-centralasia.org/assets/files/2012-05-22_Factsheet%20Warm%20Comfort_TJ_EN.pdf)

## Funding

A grant from [GIZ](#) of €30,000 (USD\$35,195) funded coaching for staff at Madina va Hamkoron and equipment for the Zindagi cooperative. Experts in energy-saving adaptations and alternative energy were seconded from Germany to provide training and expertise.

'Warm Comfort' loans are paid directly to the carpenters to carry out the agreed works once an agreement for the borrowed amount has been set. Microloans are capped at a maximum of USD\$500 over 12 months, with an interest rate of 2.5 per cent.

Madina va Hamkoron cover most of their costs (transport, salaries and operating expenses) through the microloan business. They seek grants annually to support continued training and awareness-raising programmes focusing on energy-saving and heat insulation. The organisation has a wider loan portfolio which is more profitable than the microloan scheme featured in this project.

Zindagi covers the cost of delivering the products to customers in their fees for works.

Local loan officers work with local people interested in heat insulation products to assess their needs and incomes. Repayments are based on what households can afford. If the work required is too expensive it can be done in stages.

Madina va Hamkoron plan to raise additional, lower cost loan capital so they can issue more loans in the future. They also intend to seek a grant to promote energy-saving and alternative energy.

## Innovation

This project has found a way to improve quality of life in an area which is challenging for multiple reasons. Opportunities are limited by both the location and economic situation of the region, and a reduction in remittances from emigrants has added to the level of hardship.

By embedding skills and knowledge locally and raising awareness about energy efficiency and the benefits of reducing the use of natural resources, the project has established a demand and a market which will benefit local populations.

By using microloans rather than grants, Madina va Hamkoron has been able to create a sustainable business which will continue to have a positive impact.

## Environmental Impact

Improving insulation, introducing solar energy and hydropower, and promoting the use of energy efficient stoves reduces the need to collect and burn firewood and shrubs, which helps to protect local wildlife and the environment. The project uses building materials such as wood, glass and others imported from Russia and neighbouring countries like China.

Training workshops and awareness-raising have increased local knowledge and action to protect natural resources.

## Financial Sustainability

Improving insulation and energy efficiency helps to reduce the amount of time and energy residents spend collecting fuel, leaving space for other activities. Residents also save money on buying fuel.

Carpenters are able to increase their business as the 'Warm Comfort' green microloan enables more households to buy their products on credit.

The microloan element is financially sustainable, generating a small profit for Madina va Hamkoron. The training element of the project relies on grant income which is raised annually.

Currently demand is exceeding the funds available for 'Warm Comfort' loans. Future plans include increasing the loan portfolio to offer help to more people.

## Social Impact

This project improves lives in Gorno-Badakhshan through simple home adaptations and the use of alternative energy.

Making homes warmer and reducing the need to burn and collect excessive fuel has a positive impact on health and well-being. Households also save money on fuel costs and their homes provide greater protection from extreme weather conditions.

The microloan model means most residents can have access to insulation and energy-saving products. The loan product is flexible so that it can be accessed by those on very low incomes, particularly the poorest families which are often female-headed households. Without the microloans, 70 per cent of the people living in remote villages in the area could not afford to improve their homes.

Local people have been able to develop skills and access new economic opportunities. A training journal has also been produced to support carpenters learning about thermal insulation.

Awareness raising activities (workshops and training sessions) have helped to demonstrate the importance of improving thermal efficiency and insulation to households.

## Barriers

The organisation is not currently able to meet customer demand. They are currently seeking to raise additional funds to grow their loan portfolio.

## Lessons learned

In the first year of the project, loans were issued directly so customers could arrange their own works. Monitoring showed some clients spent the money on other things and others bought poor quality designs that did not meet energy-saving standards. In other cases, customers bought windows from the market 50 kilometres

---

away and could not get them home. Sometimes windows arrived broken because they were not transported properly.

This led to the decision to join up the process with Zindagi carpenters, paying them directly so that quality, cost and efficiency improved and to ensure customers got the full benefit of the improvements planned.

## Evaluation

An initial monitoring report - to assess the effectiveness of works carried out and the microloans issued - was carried out on behalf of GIZ in November 2012.<sup>3</sup> It found:

- the approach had positive impacts on people's health and well-being;
- carpenters had benefitted from joining Zindagi;
- reduced fuel consumption and savings for residents in both money and time;
- improved quality in, and demand for, services from local craftsmen and construction workers; and
- on average, households were able to compensate for their investment into thermal insulation within two years.

The impact of the project continues to be monitored internally on an ongoing basis, looking at economic impacts and production quality/quantity; technical issues and project management.

There have been a few changes in the technology supplied. Following ongoing discussions with carpenters and construction workers, a follow-up seminar was conducted, where discussions took place about how to improve quality. For example, it was not possible to open the roof hatch window from inside the room. Roof hatch windows have been redesigned with a lever and string so they can be opened more easily.

## Recognition

The 'Warm Comfort' scheme was awarded a prize by the [Association of Microfinance Organizations of Tajikistan](#) in May 2009.

Several broadcasts featuring Madina va Hamkoron green loans have aired on television in Tajikistan. The project has also been presented in international conferences in Luxemburg during [European Microfinance Week in 2011](#) and in Bishkek, Kyrgyzstan in 2013 at the Habitat Improvement Conference: Innovation and Change in People's Livelihoods.

Articles on the project have been featured in Tajikistan media.

---

---

<sup>3</sup> [https://energypedia.info/images/f/fd/Monitoring\\_Report\\_Thermal\\_Insulation\\_Gorno-Badakhshan\\_Tajikistan.pdf](https://energypedia.info/images/f/fd/Monitoring_Report_Thermal_Insulation_Gorno-Badakhshan_Tajikistan.pdf)

## Transfer

Two microloan organisations have been influenced by this project and are offering green loans for thermal insulation. Similar products are also now available in Kyrgyzstan.

For Madina va Hamkoron the main barrier to scale is limited resources, although other large micro-finance institutions have enough resources to achieve scale. The project has provided evidence of demand for green microloans which offers a market opportunity. Madina va Hamkoron are keen to share their experiences in providing green microloans to raise awareness among other providers.

Madina va Hamkoron plan to increase their product list to supply more energy-saving and alternative energy solutions. They are currently seeking resources to increase their loan portfolio for this purpose. They are continuing to promote thermal insulation and energy-saving products as solutions that save money and natural resources for people on low incomes.

The basic approach of the project can be adopted by any micro-finance organization in partnership with a quality supplier of energy-saving products, but further subsidy is required to continue the training and awareness-raising elements of the project.