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# GEFF TAJIKISTAN NEWSLETTER

ISSUE №12

JULY - SEPTEMBER 2022

**WELCOME TO THE 12<sup>TH</sup> ISSUE OF THE GEEFF TAJIKISTAN NEWSLETTER!**

The GEFF Tajikistan portfolio exceeded USD 10.5 million with more than 2,240 beneficiaries - farmers, agri-businesses and households investing in resource



efficiency measures financed by GEFF Tajikistan. We welcomed the progress made by our beneficiaries towards implementing green solutions. They are supported by grant funding provided by the European Union, please read more about these cases in this issue. On August 18<sup>th</sup>, MDO "IMON INTERNATIONAL" joined GEFF Tajikistan as our 4<sup>th</sup> financial partner for onlending to private sector borrowers investing in green technologies.

GEFF Tajikistan continues its cooperation with Radio "Vatan" and presents the next series of radio interviews in 2022/2023. In this 12<sup>th</sup> issue, we are featuring one of our Radio Interview sessions, focused on the awareness building of incipient and innovative technologies among rural farmers and agri-businesses.

Last but not the least, we conducted gender awareness training sessions for MDO "HUMO" staff and female clients to develop relevant knowledge and skills for gender-inclusive green finance and for achieving gender equality. It was a valuable exchange of ideas and experiences which will enhance the achievement of gender equality in green finance.

We hope you enjoy reading our newsletter and look forward to your feedback.

**MR. KAIRAT SHALABAY**  
GEFF TAJIKISTAN PROJECT MANAGER

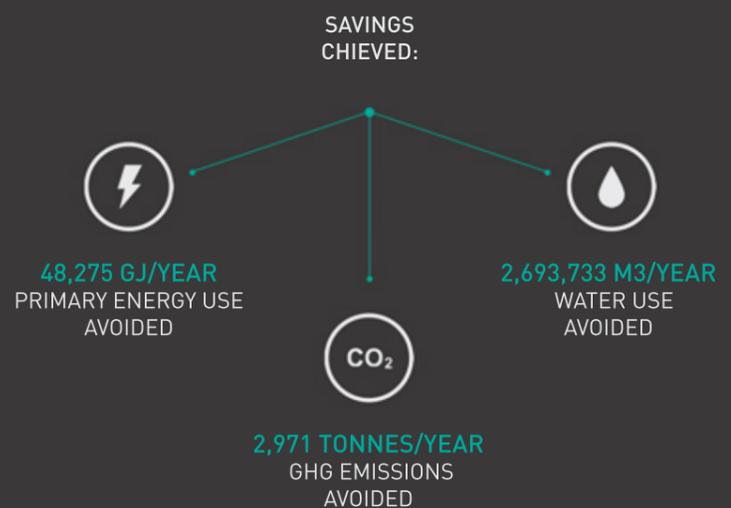
**GEFF TAJIKISTAN ACHIEVEMENTS**  
(as of 1 October 2022)

**2,247**  
SUB-LOAN BENEFICIARIES  
CONSISTING OF FARMERS, AGRIBUSINESSES AND HOUSEHOLDS

**38%**  
OF ALL  
SUB-BORROWERS  
ARE FEMALE

**>10.5 MILLION USD**  
DISBURSED  
IN  
SUB-LOANS

**+20**  
CLIMATE RESILIENCE  
TECHNOLOGIES  
SUPPORTED



**2 MILLION USD**  
TOTAL AMOUNT OF GRANT  
SUPPORT FOR  
>500 BENEFICIARIES

**78%**  
OF ALL  
SUB-BORROWERS  
ARE RURAL

## IMON INTERNATIONAL SIGNING CEREMONY

The EBRD continues its partnership with leading Tajik microlending institution “IMON INTERNATIONAL” and provided a new financial package, a loan of 4 million USD, which will help promote green investments in the country. The official signing ceremony took place on August 18th, 2022 in Bokhtar city.

It was highlighted that the cooperation between the EBRD and “IMON INTERNATIONAL” has been ongoing for more than 10 years and during this time, more than 1,000 farmers and households received green funds and will continue to make efforts to support the private sector in the country.

The financial package will support Tajik small and medium-

sized enterprises and households willing to invest in green technologies. Farmers and agribusiness are realizing practical short-term and long-term financial benefits to implement environmentally conscious improvements. Hundreds of them throughout Tajikistan will be capable to implement green projects now and in the future.

**IMON INTERNATIONAL** - is one of the largest leading financial institutions in Tajikistan, which has a network of 130 representative offices and has been operating in the microfinance market for over 23 years. The branch network of the company includes 27 branches and 103 microfinance service centres in more than 40 cities and regions of the Republic of Tajikistan.



MR. ANDREY PALKA  
Chairman of the Management  
Board of IMON INTERNATIONAL



MR. BAKHODUR YUSUPOV, EBRD  
GEFF Tajikistan Operation Leader  
(Financial Institutions)

The GEF Tajikistan team expresses our fullest appreciation to the management of “IMON INTERNATIONAL” and the entire team for the dedication and hard work under the GEF Tajikistan Facility. We are

confident that our collaboration which has produced successful results in 2020 will continue to offer considerable support to the uptake of climate resilience technologies by the private sector.



*“The collaboration with EBRD is of great value to us. We will continue developing and supporting private sector including agribusinesses and farmers in the country.”*

MR. ANDREY PALKA

Chairman of the  
Management Board of  
IMON INTERNATIONAL



## GENDER TRAINING FOR HUMO AND ITS CLIENTS

GEFF Tajikistan conducted a series of gender awareness trainings for MDO "HUMO" senior management, branch personnel and their clients in September 2022. In total, trainings were attended by more than 40 participants from

Dushanbe and Bokhtar cities. The purpose of the training was to familiarize MDO "HUMO" team with the gender inclusive approaches of "green" finance

### OBJECTIVES

- Promote exchange of experience and opinions
- Develop proposals for gender-inclusive green finance

### APPROACH

- Workshop format positioned as a strategic session to exchange opinions and collect ideas

### TRAINING AGENDA

- Results of the gender baseline assessment of GEFF Tajikistan
- Portfolio analysis of GEFF Tajikistan
- Case studies from other countries
- Discussion with the participants

*"Today we improved our knowledge on how to reach women sub-borrowers and understand their specific needs. Thank you for a very fruitful and informative session. We need more of such trainings".*

Mr. N. Raqibov  
MDO "HUMO" Loan Officer  
from Dushanbe office



A separate session on financial literacy was conducted for female clients of HUMO. A total of 18 female sub-borrowers/clients of MDO "HUMO" from Kushoniyon

district attended in this training, which was designed to improve financial literacy levels of the target groups and included below topics:



Climate change and its impacts on Tajik agricultural sector



Green technologies to improve climate resilience



Climate adaptation strategies



GEFF Tajikistan projects Cases



*Our country largely depends on agriculture for livelihoods, and at the same time is prone to floods, drought and other weather extremes, building climate resilience is becoming more pressing than ever. It is important to adapt and mitigate to climate change with new technologies presented today during the training. I found it very useful and helpful. Thanks".*

Ms. Shahri Nazarova  
Female farmer  
from Bokhtar city

## NEW SERIES OF RADIO INTERVIEWS

The GEF Tajikistan launched its next series of radio interviews with Radio Station "Vatan" that has been well received by Tajik listeners at large. It will be a continuation of the outreach efforts and dissemination of relevant information about green technologies among rural farmers and entrepreneurs.

The radio interviews are delivered with the participation of the local experts and GEF beneficiaries who received technical and grant support and successfully implemented their green project. They will share their opinions and expertise on the needs, barriers and relevant solutions in the implementation of the green technologies. The challenges and opportunities of the agricultural sector in the country and the adoption of various green solutions, will be discussed during the interviews with invited experts. The presentation of approaches and benefits of investing in green technologies will help encourage local farmers to invest in climate resilience technologies. The radio interviews with local farmers is designed to present ways in which they are adapting to new climatic conditions and how to save scarce resources.

Each radio interview is published on the Facility [website](#) and Facebook page, and the previous series of the interviews can be found [here](#).

Radio interview sessions are an integral part of the project communication strategy for empowering rural stakeholders to participate actively and make a positive contribution in the mitigation of climate change through investments in resource efficiency. This type of activities contributes to agricultural value chain development and improves the access of technologies for farmers.

*"Thank you for raising topics that are so important for us – farmers. Agriculture feeds the world; it can help create a more sustainable growth and economic development. From these programs we come to know something new and different."*

*Radio "Vatan" listener  
from Khatlon region*

### RADIO INTERVIEW SERIES – 2022 TOPICS

09.2022



MODERN, ENERGY EFFICIENT  
PRODUCTION OF COMPOUND  
FEED FOR ANIMALS

In Tajikistan, the livestock sector and in particular the poultry sub-sector is in its infancy and is considered one of the most profitable sectors of the country's economy with an annual profitability of 20-30%. Special attention is paid to this sector of the economy by both private individuals and the state. In Tajikistan, in recent years, 350-400 million eggs have been produced per year and the plan is to increase this figure to 500 million per year. Domestic producers provide up to 25% of poultry meat consumption and up to ~70% of chicken eggs.

11.2022



COST-EFFICIENT,  
SMALL-SCALE  
PRODUCTION OF OIL

According to the economists, in Tajikistan, with a consumption rate of 16.6 kg per person per year and taking population growth into account, the need for oil will also increase from 160.8 thousand this year to 170.6 thousand tons in 2024, which is more than 6%. Having in mind the global and local growth in demand, Tajikistan plans to increase the production of vegetable oil by more than 57% and reduce imports of this product by 2.1% in the next three years. For the second quarter of 2022, 52 enterprises for the production of vegetable oil with a total capacity of 80,000 tons per year are operating in the country. The private sector also sees a large investment and income opportunity in the sector.

01.2023



SPRINKLER (PIVOT)  
IRRIGATION MACHINE AS A  
WATER SAVING MEASURE

This irrigation system not only saves the amount of water in a region where there is a severe shortage of it, it also helps to save labour costs for irrigation. Among irrigation methods, sprinkler (pivot) irrigation offers some advantages from an environmental point of view, such as automated operation and lower labour costs, feasibility for applying shallow depths, good uniformity in water application, easier application of agro-chemicals and reliability.

10.2022



GEO-MEMBRANE  
AS A WATER-SAVING  
MEASURE

Geo-membranes have become an innovative and value-added solution to the construction of water reservoirs for their cost-effectiveness, ease of installation and outstanding mechanical and hydraulic properties. Scientific papers highlight the manufacturing quality and assurance of the use of HDPE (High Density Polyethylene) membranes. They also stress on geo-membranes being used in construction as a waterproof material in the reservoir. From an economic standpoint, HDPE have a large supply capacity and competence which leads to decent prices in contrast to other kinds of materials. Water reservoirs are required as storage areas for irrigation purposes. Geo-membrane reservoir liners are successfully used to prevent water loss. Geo-membranes reservoir lining offer a long service life due to their excellent physical, mechanical and biological properties.

12.2022



MODERN GREENHOUSE  
WITH DRIP IRRIGATION  
SYSTEM

Greenhouse farming is considered an implementation of intensive agriculture and can provide an increase in crop production. This is due to the fact that one has more control for creating optimal climate conditions needed for plant growth and are able to grow more plants per square feet compared to growing crops in an open field. Drip irrigation is one of the most effective and efficient ways in which a grower can automate watering the plants in a greenhouse. When done correctly, a drip irrigation system will be 90% efficient in terms of water usage and allows the precise water control. With the use of in-line valves placed at each feeder line, a grower can easily set up the system to water specific areas or plants in the greenhouse.

02.2023



PIPES AND TUBES FOR  
IRRIGATION OF ORCHARD  
ON A HILL SLOPE

In Central Asia, 75-80% of lands use flood or furrow irrigation, where farmers flow water with down small trenches running through their crops. Among various types of irrigation, furrow irrigation is a popular one here as well. This method of irrigation is technically simple and provides soil moisture within the required range, but it has several disadvantages. One of the existing disadvantages is the possibility of excessive moisture and deterioration of the air flow of the soil. The use of pipes is a good option for irrigation of lands, which is saved and irrigation water discharge is prevented, as a result, the possibility of re-flooding of the soil is eliminated. The use of this technology allows us to give the same volume of irrigation water to each well and to obtain the same soil moisture.

## EU GRANT SUPPORT

The European Commission and the European Bank for Reconstruction and Development cooperate closely to boost private sector investment in partner countries. As a key partner, the European Commission has already positively influenced the private sector development and helped to improve the competitiveness of agribusinesses and farmers in the Republic of Tajikistan.

Mr. Ilhomjon Hakimov from Rudaki region of Tajikistan, who received EU grant support is one of GEF Tajikistan's beneficiaries. The farmer has five-hectare orchard and approached one of the EBRD partner banks in Tajikistan to obtain a loan to install three cold storage units, a sprinkler irrigation system and water storage for his orchard. More details can be found in the article [here](#).



MR. ILHOMJON HAKIMOV  
Farmer from Rudaki region

*«I have visited many countries and am trying to adopt all my new skills and knowledge. For instance, in South Korea, I learned how to produce organic fertiliser and now I prefer to make it from overripe fruit. Good farming methods will help us ensure food security and therefore I am trying to involve my four sons in the farm's routine work, as they will inherit it in the future...»*

Mr. Ilhomjon Hakimov  
Farmer from Rudaki region



MR. BEHRUZ NARZIGULOV  
Farmer from Hissar region

*Mr. Behruz Narzigulov is the owner of an intensive orchard in Nilu village, one of the most remote villages in Tajikistan. Together with EU and other EBRDs donors the Facility helped him to access "green" technologies and save water. He installed a drip irrigation system which offers many benefits. Besides saving water and money, a drip irrigation system will help prevent the growth and spread of fungus and other disease. It can also guard against leaching of the soil nutrients and erosion, that traditional irrigation can cause. The video can be found under the [link](#).*

Climate resilience is crucial for Tajik farmers. Supporting the farmers not only enhances the future competitiveness of agriculture in the country, it also helps guarantee food supplies for years to come. GEF Tajikistan deeply

grateful for the support receiving from the European Commission and other donor community to adopt green technologies in farming and to help the development of rural businesses.



## GREEN TECHNOLOGY PRESENTATION

### SPRINKLER IRRIGATION SYSTEM

Successful cultivation in our region mostly depends on irrigation. Under the conditions of the increasing shortage of irrigation water, the matter of changing for water-saving crop irrigation technologies is becoming more and more urgent. The development of efficient and environment-friendly water management systems for local farmers is very important. The principal methods of applying water are flooding, overlapping strips and

furrows, sprinkling, drip irrigation. The application of water in furrows can only be done on level land, requires much labour, and often results in flooding of low areas in orchards. Sprinkler systems have largely supplanted furrow irrigation in developed countries because they can be used on rolling land, permit good control of the amount of water applied, protect trees against freezing, and require less labour than furrow irrigation does.

#### HOW SPRINKLER SYSTEMS WORK

- A sprinkler throws water through the air to simulate rainfall, whereas the other irrigation methods apply water directly to the soil, either on or below the surface.
- Water is distributed through a system of pipes usually by pumping. It is then sprayed into the air through sprinklers so that it breaks up into small water drops which fall to the ground.
- The pump supply system, sprinklers and operating conditions must be designed to enable a uniform application of water.

- The pump unit is usually centrifugal, which takes water from the source and provides adequate pressure for delivery into the pipe system.
- Fertilizers can be dissolved in the irrigation water.
- A sprinkler system can be composed of one or more sprinklers. When many sprinklers are used, they are attached to a pipeline at a predetermined spacing to achieve a uniform application amount. Sprinkler irrigation systems can direct an automated amount of water to necessary locations to promote a flourishing.



#### IMPORTANT FACTORS FOR CONSIDERATION IN THE USE OF SPRINKLER IRRIGATION SYSTEMS

The use of the sprinkler irrigation systems, originally designed for surface irrigation ways, becomes complicated due to difficult water withdrawal from the existing network. Sprinkler irrigation is adaptable to any farmable slope, whether uniform or undulating. The lateral pipes supplying water to the sprinklers should always be laid out along the land contour whenever possible. This will minimize the pressure changes at the sprinklers and provide a uniform irrigation. Sprinkler irrigation is suited for most row, field and tree crops and water can be sprayed over or under the crop canopy. The large sprinklers are not recommended for irrigation of delicate crops such as lettuce because the large water drops produced by the sprinklers may damage the crop.

Sprinklers are best suited to sandy soils with high infiltration rates although they are adaptable to most soils. Sprinklers are not suitable for soils which easily form a crust. If sprinkler irrigation is the only method available, then light fine sprays should be used. Larger sprinklers producing larger water droplets are to be avoided. A good clean supply of water, free of suspended sediments, is required to avoid problems of sprinkler nozzle blockage and spoiling the crop by coating it with sediment. A typical sprinkler irrigation system consists of the following components:

#### BENEFITS OF SPRINKLER SYSTEMS:

-  Water savings
-  Increasing productivity of the irrigated lands
-  Preventing frost injury in orchards.

- ✓ Pump unit
- ✓ Mainline and some-times sub-mainlines
- ✓ Laterals
- ✓ Sprinklers.

When selecting a sprinkler system, the most important physical parameters to consider are:

- The shape and size of the field
- The topography of the field: Does the field have many hills with steep slopes?

The required irrigation system capacity is dependent on the:

- Peak crop water requirements during the growing season
- Maximum effective crop root depth
- Texture and infiltration rate of the soil
- Available water-holding capacity of the soil
- Pumping capacity of the well or wells.

If you are interested in a sprinkler irrigation system installation, contact us and our Agri and Engineering team will support you on technical issues and connect you with local vendors. We expect that the use of such new technologies will further improve productivity, quality and increase profits.