



Investing in rural people



Tajikistan

**Protecting the environment,
creating economic opportunity**



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Often called the “roof of the world”, Tajikistan is a mountainous country in the heart of Central Asia. With over half of its geography situated more than 3,000 metres above sea level, only about one quarter of the country’s land is suitable for agriculture. Yet, agriculture is the backbone of Tajikistan’s economy, and farming is the main livelihood in rural areas, where about three quarters of the country’s people live. Although livestock is a key part of the agriculture sector, livestock owners confront many difficult challenges. They are particularly challenged by the consequences of climate change on water availability, fodder crop yields and pasture productivity. It comes as no surprise that poverty is highest in rural farming communities where sustainable agriculture is increasingly challenging.

Since 2008, IFAD has invested US\$80 million in Tajikistan in four projects directly benefiting 128,000 vulnerable households. Working in partnership with the Government of Tajikistan, the IFAD-supported projects have helped rural communities strengthen their grassroots organizations and manage their natural resources. These communities have developed the rural infrastructure they need to sustain agricultural production and stimulate inclusive economic growth. Through the implementation of their own community development plans, rural people are protecting the environment and creating diversified income-generating activities, in particular for women-headed households and youth, leading to increased household incomes and food security.

Pasture User Unions strengthen community decision-making

The Livestock and Pasture Development Project (LPDP) worked in 400 villages in the Khatlon Oblast Region of southwestern Tajikistan between 2013 and 2021. The project introduced an innovative approach dedicated to livestock and natural resource management that piloted the Pasture User Union (PUU) model. This community-driven development platform was rooted in the 2013 On Pasture law about monitoring the use of pasturelands. Through the PUUs, LPDP empowered rural communities to carry out low-cost, nature-based solutions that led to sustainable improvements in pasture conditions on around 130,000 hectares of communal rangeland, thus increasing livestock productivity, nutritional status and household incomes.

All farming households in project villages are PUU members. They elect a board, one third of whom are women, to lead village-level participatory planning processes. Together, they identify community development priorities and make collective decisions regarding financial management and business plans. In addition to managing pasturelands, PUUs foster improved livestock husbandry practices and create new opportunities for women's livelihoods to ensure sustainable economic growth in their communities. They also coordinate the use of agricultural machinery received from the LPDP to generate income, create jobs and develop community infrastructure.





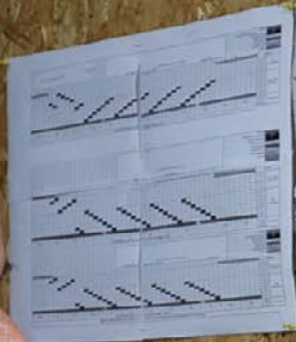
Rotational grazing: key to sustainable pasture management and livestock productivity

Mandatory rotational grazing replaced unregulated continuous grazing on village lands as the fundamental component of PUU community livestock and pasture management. Pasture rotation plans subdivide village pasturelands into grazing areas and prescribe when, where and for how long to graze or rest each plot. Detailed grazing charts and land maps are displayed at PUU offices and implemented by grazing supervisors. Rotational grazing has led to sustainable environmental restoration of pasturelands and increases in livestock productivity.

“Before the project started, we grazed our livestock with no management at all. Our pasture condition has greatly improved since LPDP came to our village. In the beginning, it was hard to convince people to adopt rotational grazing. We even had conflicts. But LPDP started a demonstration plot to show the benefits of protecting pastureland from grazing for a short period, and we started to see grasses growing that we hadn’t seen before. We never thought it possible to cut grass from our pastures to use as winter fodder because they were always overgrazed. But the demonstration plot convinced us of the benefits of rotational grazing.”

Fatkhiddin Mirahmedov, grazing supervisor
in Istiqlol Village





ХУЧЛАЛТХОН ХАВЧУУМ ЧУ





Stewards of the land: nurturing healthy pastures and livestock

Fathyddin Mirakhiadov has herded livestock in Istiqlol Village most of his life. Like most villagers in rural Tajikistan, the 62-year-old owns just a few animals. Since the LPDP introduced rotational grazing management, livestock owners have combined their animals to form larger herds instead of grazing independently as in the past. The village recruited Fathyddin to take the collective herd to pasture.

Kuchar Kholmatov has been working as a herder in his native village since 2018. The PUU pays him 1,500 somoni (US\$150) per month. The young father of two used to migrate in search of seasonal work. But it was very hard to find jobs in Moscow, and he took whatever was available when he could find it.

Farmers used to graze livestock everywhere, continuously, resulting in extensive ecological damage. Pastures were in a very bad condition. Rotational grazing management is a low-cost, efficient method to overcome the degradation caused by decades of overgrazing. It only required a change in mindset.

The herders are good stewards of the land, grazing their animals in a way that leads to ecological recovery.

“Our village cannot be compared to life in the city. It is good to be here where I can enjoy the fresh air and care for our animals.”

Kuchar Kholmatov

When less is more: decreasing herd size

Livestock breeding is the main income-generating activity in most rural villages in the Khatlon Oblast Region. Pastures used to be overgrazed and in poor condition, and livestock productivity was poor. Rotational grazing has resulted in more nutritious and abundant grasses for grazing livestock. IFAD and LPDP also introduced a breeding programme providing purebred bulls and Hissar rams to strengthen local breeds and increase productivity. Cattle and sheep owners are slowly improving their herds, which are still adapted to the geography and climate. Crossbred calves and lambs have a higher birth weight and put on weight quicker than the animals of local breeds do.

Livestock owners have realized that it is possible to reduce their herd size as productivity and incomes increase, leading to reduced grazing pressure, improved pasture condition and still higher livestock productivity. This, in turn, can lead to increased carbon sequestration and reduced greenhouse gas emissions.

“We had many more head of livestock before, but not very productive. Now, we are decreasing the number of animals and increasing their productivity. We used to sell calves for 1,500 somoni (US\$150), now we sell them for double that price. And we get more than 1,000 somoni for each lamb, instead of 300 to 500 somoni as before.”

Zardakov Zafarkhon Malaevich, PUU Head (l)
and Behbudov Mahmud, grazing supervisor (r)
in Qaragoch Village





“The condition of our livestock is very good now. Our animals are fat. We used to sell our young sheep for about 600 somoni. Now, with improved breeding, we sell them for more than 1,000 somoni each. Our income is increasing even as we decrease the number of sheep in our herd.”

Latipova Gavharbi,
PUU member and livestock
owner in Navbahor Village





“The condition of our pastures is improving year by year because of rotational grazing. With purebred bulls we are improving our herd, too. Our cows are more productive now, which allows us to decrease their numbers. We recently sold a two-year-old crossbred bull for 16,000 somoni (US\$1,600) – very good money. Mostly, we keep female calves as next-generation cows.”

Mahmadullo Odinaev and Sattorova Gulkhumor, veterinarians and livestock owners in Istiqlol Village





Veterinary services: improving animal health and productivity

The LPDP ensured that veterinarians are available for PUU livestock owners to access comprehensive livestock health services, such as preventive vaccine programmes against foot and mouth disease, anthrax and other diseases, and medication programmes against photosensitization, parasites and other common ailments. The project built veterinary clinics in 24 PUU villages. Veterinarians were trained on the latest techniques and received kits that included vaccines and other essential supplies.

Thanks to the proactive vaccination programme, diseases that previously contaminated livestock are no longer a threat. Villagers can now safely consume locally produced meat and other animal-based products.

Good livestock health depends primarily on nutritious feed that comes from improved pasturelands. But the availability of clean drinking water and timely vaccinations against disease are also crucial ingredients. The LPDP made it possible for these three things to come together.

“There is less animal illness because of the services we offer. I go from house to house to speak with villagers about livestock disease and to make sure their animals have been properly vaccinated. We have seen great improvements.”

Boboev Ismat, veterinarian in
Obi Shirin Village

Increasing milk production and income

Since the LPDP provided **Guliston Zarifova** with an improved breed dairy cow to replace her local breed cow, her daily milk production has increased from 5 litres to as much as 20 litres. She uses some of the milk to feed the calf and some for her household consumption. And with plenty to spare, she makes value-added products like butter and dried yogurt, which she sells at the local market.

Following the advice of the local veterinarian, she changed the way she cares for her cow's young calf. Instead of letting the calf feed directly from its mother, she bottle-feeds it to prevent injury to the mother and bleeding that could contaminate the milk. In this way, Guliston is improving the milk's hygiene, as well as ensuring her cow's good health. Because the cow will be less stressed, she will mate and calve each year instead of every second year as typically happened before. A combination of improved breeding, robust grasslands and sufficient supplementary fodder, as well as a comprehensive animal health care programme, has helped Guliston increase production and improve her household nutrition and income.

“I prefer to use my old manual churn for separating butter from cream. The hard work doesn't bother me – I am 71 years old and have 12 children, I am used to hard work. I get a better product doing it the old-fashioned way.”

Guliston Zarifova





Agricultural machinery: strengthening the sustainability of PUUs

Most PUU villages did not own or have timely access to agricultural machinery. They had to rent from neighbouring villages that provided services only after they had finished their own field preparation, cultivation or harvesting. Now, with machinery received from the LPDP, the PUUs provide affordable and timely farming services to their members. The drudgery associated with farm work has been lessened while productivity and crop yields have increased, and harvest losses have decreased by up to 30 per cent.

In addition to farm work, communities use the equipment for a variety of activities, including repairing roads and building and maintaining water and irrigation systems. Income earned from services provided to PUU members and to neighbouring villages has resulted in profitable village-level enterprises that have created jobs for machinery operators, increased labour productivity, enhanced fodder cultivation and conservation, and been used to develop village infrastructure.





“We used to cut our 40 hectares of grasslands by hand. Now, with the machinery provided by the project, our work is easy. What used to take 15 or 20 men one month to harvest by hand, we now do with our machinery in just a couple of days – and with far less loss.”

Zardakov Zafarkhon
Malaevich, Siyovush
PUU Head

The life-changing gift of water

Ozodamoh Samadova reflected on the difficult days of not so long ago when people in her village did not have access to running water in their homes. One day, her five-year-old daughter went to fetch water. As she approached home, she slipped and fell on the muddy path and spilled everything. Having tried so hard to bring water home to the family but failing, she sat down on the path and cried. “I sat down with my daughter, and I cried together with her. That was a day I can never forget.”

Women and children used to walk a long way to get water, and it was very hard labour. These days, Ozodamoh and her neighbours have water inside their homes and can grow fruits and vegetables.

The PUU prioritized its limited budget to provide all village households with access to clean drinking water. In May 2019, using income earned from agricultural machinery services, the PUU dug a water well, installed pipeline and reconstructed holding reservoirs to provide drinking water to more than 200 village homes.

“We had no trees to shade us. Our children had no water with which to wash and were dirty. We are so grateful to the project for giving us the gift of water. It has truly changed our lives.”

Ozodamoh Samadova









Taking root: ecological restoration, economic opportunity

In Istiqlol Village, a 60-hectare pistachio plantation started with a 1-hectare demonstration plot established by the LPDP in 2018 on a 12-hectare, heavily eroded hillside field that had been abandoned for two decades. The aim was to show villagers how rest periods in a rotational grazing plan help to restore pasture ecosystems and how planting trees can protect the environment from further degradation.

The pistachio saplings were planted using Groasis Waterboxxes – an in-ground device that collects water from dew or rainfall – provided by IFAD’s Adaptation for Smallholder Agriculture Programme. Some of the young trees have already started to bear nuts.

Pistachio trees grow deep roots, and once the trees are established, they are drought-tolerant. Known to live for centuries, the high-income-generating pistachio is a smart investment for future generations.

“After just one rainy season, we could see the results. There was no erosion on the one hectare with pistachio trees, whereas the adjacent area was further eroded by the heavy spring rains. That was enough to convince us. We used our own resources to plant pistachio seedlings on the remaining 11 hectares.”

Togirkhon Aymatov, PUU Horticulturalist

Diversity: building inclusive rural economies

Komilova Osiyamo is a member of a women's income-generating group (WIGG) that grows and processes rosehip in Istiqlol Village.

The LPDP facilitated a community-level participatory process to help PUUs select women and to establish 371 WIGGs that widened the spectrum of income-generating activities available to them. Prioritizing women from poor households, women-headed households and young families, the LPDP empowered more than 2,400 women to start poultry production, beekeeping and a variety of other activities.

In 2018, the project helped a group of six women from Komilova's village plant 1,200 rosehip seedlings in a 1-hectare garden. Already from the second year, they harvested 2.2 kilograms of rosehip per bush, and from the third year 3.5 kilograms per bush, which they use to produce dried rosehip and juice. They also collect honey using mobile beehives that they bring to feed on rosehip flowers in the spring. They sell the dried rosehip for 18 somoni (US\$1.80) per kilogram in the local market and pharmacies.

“We are grateful to IFAD for giving us a livelihood, an income. We now have jobs. With the money we have earned, we are planning to add one additional hectare to our cultivation.”

Komilova Osiyamo









Building bridges: making lasting differences in rural Tajikistan

Ozodamoh Samadova, Khairi Qurbonova, Idimo Habibulloyeva and **Marvori Radjabova** are board members of the Tuto Village Pasture User Union (PUU). Every year when the rains came, the small river that separates their small village from their pastures and fields turned the dry riverbed into a torrent of flood waters. Livestock drowned, and children who live on the opposite side couldn't get to school. The women worked tirelessly to change that.

Now children and livestock can cross without fear. And even during dry periods, agricultural machinery can navigate the river crossing more easily.

The Livestock and Pasture Development Project empowered poor rural women and men across the Khatlon Oblast Region to transform their communities. While the project's main focus was to promote resilient pasture and livestock management, it also nurtured new economic activities beyond livestock. Many communities expressed a preference for investing in agricultural machinery.





The Tuto Village PUU, like so many others, turned the mechanized equipment received from the LPDP into a sustainable income-generating activity. With the profits from providing agricultural machinery services, PUUs have invested in community works – building bridges leading to a better tomorrow.

“These are very good days for us because our dream has come true. This bridge that we have built is life-changing for our village.”

Marvori Radjabova Anvarovna



International Fund for Agricultural Development
Via Paolo di Dono, 44 - 00142 Rome, Italy
Tel: +39 06 54591 - Fax: +39 06 5043463
Email: ifad@ifad.org
www.ifad.org

 facebook.com/ifad
 instagram.com/ifadnews
 linkedin.com/company/ifad
 twitter.com/ifad
 youtube.com/user/ifadTV

Text: Bob Baber, Shuhratjon Abdurasulov
and Malikgayrati Malikrahmat
Photographs: Didor Sadulloev