

Tajikistan: Green works



The question was easy to pose: being profitable while using environmentally friendly approaches. UNDP's *Wider Europe Aid for Trade* project wanted to prove that greener approaches and private sector development can go hand in hand.

The different components of this success story – a greenhouse, a lot of clay, tomatoes and cucumbers, and some very crafty farmers.

The project background in three words

The '*Wider Europe: Aid for Trade for Central Asia, South Caucasus and Western CIS*' project, funded by the Government of Finland for a total of 6.2 million Euros, helps countries in these regions to benefit from Aid for Trade mechanisms, and to harvest the benefits of trade and the private sector for human development. The project works both regionally and individually with eleven countries in the Western CIS region (Belarus, Moldova and Ukraine), in the South Caucasus (Armenia, Azerbaijan and Georgia), as well as in Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan).

The project focuses on improving export competitiveness all along the value chain, including in business operations (planning, management, and finance), access to finance, processing, standards and branding, and access to markets and price information. It relies on participatory approaches (i.e., the active engagement of project beneficiaries), and use of local knowledge.

Tajikistan is an agrarian country in which more than 70% of the population resides in rural areas. Food security remains an important issue in the mountainous areas of Tajikistan, where of its 7.5 million population, two million are undernourished. Agriculture is the mainstay of Tajikistan's economy, accounting for 24 percent of GDP, 66 percent of employment, 26 percent of exports, and 39 percent of tax revenue. However, Tajikistan's farmers have limited access to finance, particularly medium-term credit for the purchase of agricultural machinery. Farms rely on old and fuel-inefficient machinery, with resultant low productivity. In addition, there are many administrative barriers and requirements that limit the growth of agri-businesses.¹ According to the national Aid for Trade Needs Assessments, the main problems facing small agricultural producers are related to imperfect market mechanisms and lack of opportunity to introduce new technologies, apply updated machinery, and increase productivity.

In Tajikistan, the *Aid for Trade* project developed dedicated capacity building and loan packages targeting Small and Medium Enterprises to help address the issues identified in the Needs Assessment. Access to micro loans was well established. However, there was no real access for small to medium-sized loans. The project therefore decided to cover this niche and create a loan product that targets small to medium-sized affordable loans (with a maximum loan of 10 000 US\$). The project also supported one proposal with an environmental component – a greenhouse that uses clay as an insulant and consequently does not require any artificial heating.

¹ Tajikistan : Aid for Trade Needs Assessment (UNDP, 2010) p.67



A simple but powerful solution

During Soviet times, greenhouses played an important role in the agricultural sector of Tajikistan. Greenhouses were a favoured agricultural policy during these times, due to the presence of large supply of oil and gas for heating greenhouses. The supply of oil and gas became more unstable and expensive with the collapse of the Soviet Union as a consequence greenhouse production stopped.

In order to support alternative solutions for vegetable productions, the project facilitated a loan for the establishment of one eco-friendly greenhouse. The greenhouse uses clay as natural insulation, a drip irrigation system to reduce water use, and organic fertilizer to reduce input costs and upgrade soil fertility. The clay wall stores the heat assembled during daytime and releases it during the nights. This is sufficient to allow farmers to grow tomatoes and cucumbers during the winter without artificial heating (i.e. no oil, no gas, no electricity).

The greenhouse generates extra income for some 40 farmers and their families. Moreover, this new production unit provided for new employment opportunities.

The farmers benefited from a loan of 10 000 US\$, they furthermore contributed 7000US\$ of additional investments. During its first harvesting season (January – May 2011), the greenhouse produced 7000 kg tomatoes and 5000 kg cucumbers. The average production cost per kg is 0.28 US\$, with sales price varying between 1 -1.2 US\$ per kg. The greenhouse can be used from December to May, and the farmers will have fully repaid the loan and recovered cost by the end of March 2012 – making the total cost recovery time one year. The insulation allows the greenhouse to operate even with outside temperature up to -10C° sustaining an inside temperature of no less than of +13 C°.

The tomatoes and cucumbers produced in the greenhouse are of good quality and much cheaper than the ones imported. The farmers have no problem with selling the supply; making these green investments a serious and profitable venture for the cooperative.



Benefits that last

The pilot that the *Aid for Trade* project was running here goes further than just private sector development, employment and income generation. It demonstrates that environmentally sound production methods can be profitably combined with the promotion of small and medium enterprises in geographical remote areas. More importantly, it shows that small businesses are very much interested in investing substantial amounts of funding into new technologies if it clearly (and in the short-run) is profitable for them. Financial sustainability always matters – demonstrating the cost effectiveness of greener approaches will make businesses much more willing to accept the risk of changing production methodologies.