



PROJECT FACTSHEET

Commonwealth of Independent States Division (CIS) September 2014

Swiss Agency for Development
and Cooperation SDC

WATER CONVEYANCE NETWORKS IN CENTRAL ASIA: AN SDC PROJECT STRENGTHENS INHABITANTS' SELF-SUFFICIENCY



The inhabitants of Tinchlik village (Uzbekistan) have decided to build a water conveyance network themselves.

REGIONAL CONTEXT

In Uzbekistan and Tajikistan, the situation of populations that were already poor has been worsened by independence. With an annual per capita income of USD 280, these two countries are among the poorest in the world.

An extremely complex network of channels runs through the Fergana Valley to irrigate the fertile lands of this wheat and cotton growing area of Central Asia. With a surface area of 70,000 km² (1.7 times that of Switzerland), the valley straddles Uzbekistan, Kyrgyzstan and Tajikistan and has the highest population density of the region (more than 170 inhab/km²). The total population is more than 12 million, living mostly in poor rural areas, which are rapidly growing in number.

SECTOR CONTEXT

In these rural areas, most people consume water from the irrigation canals, which are fed by water taken from the rivers flowing through the region and which contribute to form the Syr Darya, one of Central Asia's two major rivers. The canals are often situated some distance from the villages, so that women and children sometimes have to carry water for several kilometres. The water is often badly polluted by agrochemical products, waste water and industrial pollution from the Soviet era. Alternatively, rural populations can buy water from vendors who cross the valley with tankers. In both cases the water is generally unfit for consumption and causes various diseases (parasitic disease, intestinal worms, diarrhoea, hepatitis, typhoid and others), by which children are the first to be affected.

Clean water is the basis for development. For this reason, in its Millennium Development Goals, the UN is

No development without clean water. The Central Asian states are failing to supply drinking water to the Fergana Valley, a vast, densely populated, rural region. The majority of this poor region's inhabitants suffer from diseases caused by the consumption of contaminated water, generating serious medical costs and major economic losses. A project funded by the SDC is helping villagers to improve their situation by tackling the problems themselves.



The Fergana Valley is a vast, fertile plain, the greater part of which lies in Uzbekistan. It is bordered by mountain ranges with peaks up to 5,000 metres, which are situated in Kyrgyzstan and Tajikistan.

PROJECT OBJECTIVES AND ACTIVITIES

Based on the success of a regional project launched and funded by the SDC (Regional Rural Water Supply and Sanitation Project), the SDC is continuing its commitment to the water sector in Uzbekistan and Tajikistan with proven strategies. Two projects enable village populations in Uzbekistan and Tajikistan to have access to drinking water. The inhabitants of the Fergana Valley are learning to build and maintain their water networks. They make sure that the pumps are in good working order as well as monitoring disinfection, pipelines, reservoirs and wells. In winter, they also have to protect the network from freezing. In the long term, the project aims to help the villages manage their drinking water systems by themselves: these have to be not only managed, operated and maintained, but their expansion must also be ensured to cope with new arrivals in the village and growing demands for water connections in homes. Adequate water rates as well as the appropriate management of funds in order to guarantee the maintenance and renewal of equipment represent a major challenge.

planning to halve the proportion of the population without sustainable access to safe drinking water and basic sanitation by 2015. However, although the proportion of the world's population with access to clean water rose from 79 % to 83% between 1990 and 2004, in Central Asia the trend has been reversed since the collapse of the Soviet Union: the number of people without access to clean water is increasing because the region's new states lack the financial resources to equip themselves with the infrastructures required by a booming population. Furthermore, the existing equipment is falling into ruin due to lack of funds for its maintenance. But money is not the only reason. The central authorities lack the organisational capacities which would enable them to help the population. In Uzbekistan, the proportion of the population with access to clean water fell from 90 % in 1990 to 87 % in 2012. In Tajikistan, 72% of the population has access to drinking water; in rural areas this figure is only 64 %.

The villagers, such as this woman from Karajida (Uzbekistan) no longer have to drink water from the irrigation canals, as drinking water is now supplied to their village.



Involvement of the population

For many, the novelty of these projects lies in the involvement of a population which was used to having decisions made for it by the state. In these ex-Soviet Union countries, civil society is only just starting to organise itself. Projects such as those run by the SDC encourage this process as villagers elect a «water committee» which in turn nominates a director, an accountant and an engineer. Every six months, a commission checks the work done so far.

Water rates

The financial and technical durability of the water systems is possible thanks to water rates that are attractive while covering all operating costs as well as investment. Some water systems, built more than ten years ago, are still in operation and have been adapted to meet growing demand. The villagers have financed the necessary adjustments using their own funds accumulated over the years to pay off the initial investment. Eventually, these decentralised water systems may possibly be financed directly by investment banks, with the repayment of credit and interest being covered by the water rates.

These projects are well-received by the inhabitants thanks to the decision-making power it grants them. This point is all the more important as they have to

pay rates which cover all costs for electricity for the pumps, maintenance, wages and depreciation. Whereas water used to be free, having to pay for it makes it more precious.

Hygiene is essential

The projects also focus on hygiene. Clear and targeted explanations encourage the population to adopt good practices, such as washing hands with soap at critical times, careful cleaning of water containers and a preference for boiled water. These kinds of practices help to considerably reduce widespread water-related diseases. In this area, projects work closely with the ministries of health and education, involving the participation of teachers as well as doctors and nurses. A UN study shows, moreover, the importance of reliable access to clean water and sanitation: children with such access are half as likely to die from a disease caused by drinking dirty water. And according to the World Bank, insufficient access to sanitation and drinking water can cause economic losses of up to 9 % of GDP.

A huge training programme has been set up with the help of teachers (Ministry of Education) and medical staff (Ministry of Health), targeting school children in rural areas and their parents.

Decent toilets

Lastly, another part of the project is concerned with improving toilets in critical public places: schools and medical dispensaries. The toilets in these public places are often in a very bad state, influencing their use. Women in particular are penalised: young girls in schools adopt strategies to avoid using toilets, such as not eating or drinking. These strategies have disastrous consequences with regard to public health in countries where the temperature range is considerable.

Having decent and usable toilets is therefore a primary health issue. The projects help to rebuild or improve toilets in schools and hospital centres as well as organising their maintenance with the help of the water committees.

RESULTS AND NEXT STEPS

Since the start of the SDC's commitment to water networks in the Ferghana Valley in 2004, some 150,000 inhabitants of 32 villages now have durable access to drinking water; 110,000 in Uzbekistan and 40,000 in Tajikistan. The projects have helped to reduce water-borne disease by at least 30%.

The hygiene training programme, which has already led to the instruction of 4,000 teachers and medical staff in the region must now be integrated at national level into compulsory schooling programmes in Uzbekistan and Tajikistan. Furthermore, the project

A SUCCESS STORY IN THE VILLAGE OF UQSHI DASHT



The hospital in Uqshi Dasht has clean water today.

In the village of Uqshi Dasht in Uzbekistan, the project has helped the population to build a water distribution system for 15,000 people.

A complex care facility (a dispensary and sanatorium for treating tuberculosis) was established in the village in 1967. Initially the facility served as a regional hospital specialised in the treatment of patients with active tuberculosis. In 1997 it was converted into a dispensary and regional hospital where only patients suffering from a latent form of the disease are treated. With its dilapidated infrastructure, the facility has 120 beds and employs 113 members of staff (doctors, nurses, janitors, administrative staff) of whom 93 work during the day and 20 at night. This means that an average of 215 people need water each day. In an emergency, the number of patients can rise to 160, meaning that the number of people requiring water can reach a total of 250.

Before the Rural Water Supply and Sanitation project was implemented in this village, the sanatorium and the population relied on water from the canal. This water, which was often contaminated, was roughly filtered in a filtering basin before being distributed in limited quantities to the hospital.

The project enabled the hospital to be directly linked to the distribution network by installing a direct supply so that the hospital has access to perfectly clean water 24 hours a day. The village population, as well as the hospital staff, have reorganised the hospital's internal network distribution. Today, for the first time in 20 years, the kitchen and laundry, essential infrastructures in a hospital, have enough good quality water every day. A real revolution! Patients can now shower daily rather than weekly.

This project, with very low per-capita investment, can guarantee the durability of the system thanks to water rates which entirely cover the costs and to the establishment of a maintenance and repair system.

will be extended beyond the Ferghana Valley into Uzbekistan.

The infrastructures that have already been installed will serve as examples for the independent continuation of water management in the two countries, in particular for the installation of water networks financed by the Uzbek government based on loans from the international financial institutions, such as the World Bank.

THE PROJECT AT A GLANCE

Project titles

Rural Water Supply and Sanitation Project
Uzbekistan
Tajikistan Water Supply and Sanitation Project

Duration

In Uzbekistan: 2007 – 2016
In Tajikistan: 2009 – 2017

Partners

Village communities
Local and national authorities

Organisation in charge of implementation

International Water Secretariat (Canada)

Current budget

Uzbekistan: CHF 6 million (phase 4)
Tajikistan: CHF 5.1 million (phase 2)

DID YOU KNOW...

- that almost two million people die each year because they have no access to clean water and sanitation, the majority of them children?
- that access to clean water and sanitation halves child mortality?
- that whereas 100 % of people living in Switzerland have access to clean water, the proportion is much lower in Central Asia: 87 % in Uzbekistan and 72% in Tajikistan? (These are the official figures but the true figures are undoubtedly lower)



The infrastructure installed by the villages includes water reservoirs, such as the one in Kalainov.

PUBLISHED BY

Swiss Agency for Development and Cooperation (SDC)
Commonwealth of Independent States Division (CIS)
Freiburgstrasse 130 CH-3003 Berne

Design / production:

Alexandra Stark, Zurich, www.alexandrastark.ch

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Photos: ISW-Team

Data source:

Joint Monitoring Programme WHO/UNICEF 2012.

Map: FDFA Geoservices (Sources: NaturalEarth, Cgiar-CSI)

For further information:

<http://www.sdc.admin.ch>

www.swiss-cooperation.admin.ch/centralasia