

Water supply for the community of Gazza village as a means for Forest protection

Background information

Gazza village part of the Jamoat Voru is situated in the east of Panjakent on an altitude of 1734m a.s.l. It is located 40 km away from Panjakent city. Distance from Dushanbe to Gazza village is 232km and from jamoat Voru about 34 km.

The village's population makes up 242 residents, including 113 women, with total number of 96 households. The number of livestock according to the villagers as by 01.01.2017: cattle – 415; sheep – 577; horses – 238; donkeys – 68.

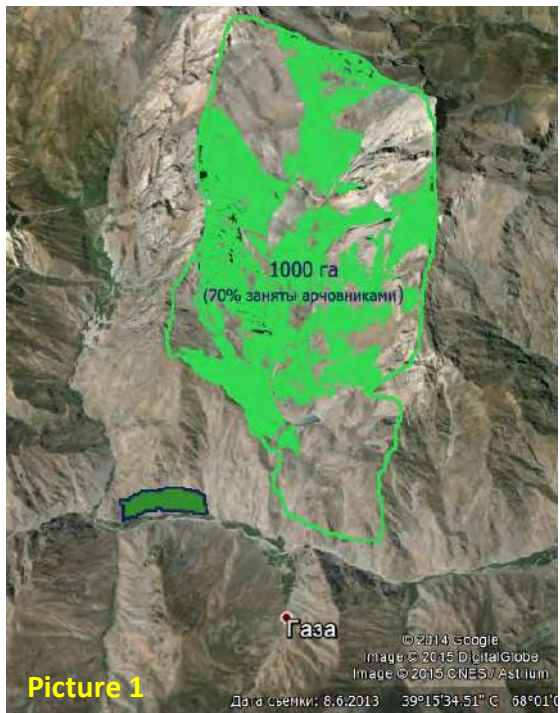
Villagers' main livelihood is comprised of agricultural products produced locally, livestock, and remittances they receive from immigrants working in Russia. On average, every household has about 0.06ha of land. Villagers from Gazza also use the arable land further down the valley that belongs to the neighboring village - Marghedar at a distance of 35-40 km. For the use of this land, taxes are paid to the local tax office. Further, each household has about 0,06ha for kitchen gardens. The planting season starts from mid of April and harvesting season starts in September beginning of October.

The village suffers from acute shortage of both irrigation and drinking water. It receives water from two sources. The water, which comes from the mountain gorge, is used for irrigation mainly (picture 3 – red arrow), and the river running below the village.

The people of Gazza also highly depend on nearby forests of State Forest Fund (SFF) land (2200-2600 m a.s.l.), called Khushtarita (picture 1 and 2 below), which makes around 1000 ha, 70% of which covered by *Juniperus* tree species.

Besides the overexploitation of nearby pastures by livestock, people very often are forced to engage in illegal activities, primarily for harvesting fuel wood, and grazing their cattle on the forest land, which is considered as the main reason for degradation of the forest.

Such unsustainable use of forest and pasture resources by the population has caused an extreme degradation of lands.



Picture 1



Picture 2

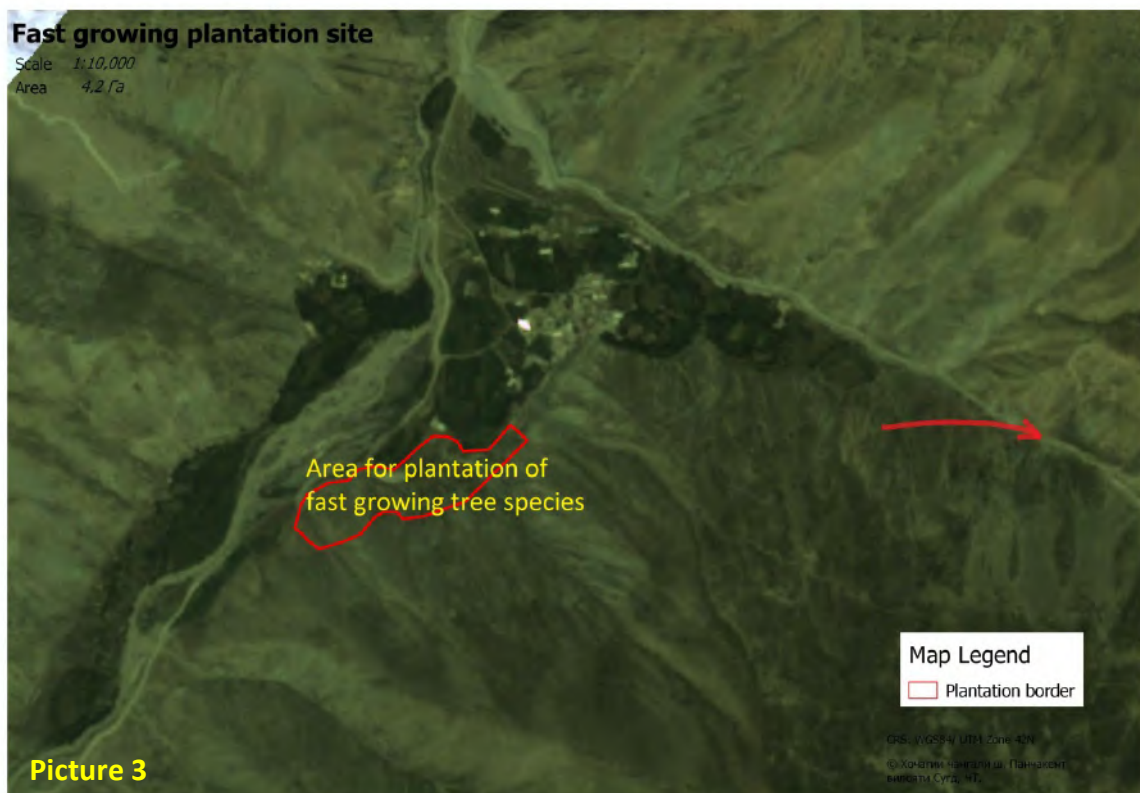


GIZ is working in Gazza village since early 2017 for the piloting of the Ecosystem-based adaptation approach in the frame of project '[Ecosystem-based adaptation in high mountains areas of Central Asia](#)'. Village workshops in order to identify suitable climate adaptation measures have been conducted in June and July 2017. Besides the water for irrigation, the necessity of a drinking water pipe for the village has become obvious during the workshops and further measures can only be implemented if drinking water for the village is also secured.

Irrigation and Drinking water pipe

The aim of providing a pipe for both irrigation and drinking water to Gazza village is to reduce the pressure on the *Juniperus* forest on State Forest Fund (SFF) land on the opposite side of the river, by cultivating fast growing trees at the nearby slope (picture 3 – the area outlined by red color).

Gazza village is located in a dry area, where irrigation and drinking water supply is limited. Currently, the village gets its water from a nearby gorge (see red arrow on the picture 3). This gorge provides just about enough water in the dry season, however, leaves the area around the gorge unusable for cultivation.



With a water pipe directly from Voru river to the village, the community could use the water to mainly cultivate fast growing trees, as well as to meet their basic needs for drinking and cooking. The harvest from these fast growing trees shall then decrease the need for cutting the *Juniperus* forest on the State Forest Fund (SFF) land in the long run.

Project contribution

The intervention will be a joint intervention between the CAFT project, GIZ, CAMP Tabiat and the state forest enterprise in Panjakent. While the CAFT project will take over the financing of the water pipe and construction material, as well as the needed machinery, GIZ will further provide technical support to the involved beneficiaries. CAMP Tabiat will supervise the construction of the water pipe in the field. Further, GIZ will facilitate the afforestation of the area

near the gorge, by providing technical backstopping to SFE and the community of Gazza on developing the afforestation schemes and Management plans, as well as to CAMP Tabiat on mobilizing the local people for carrying out the work to be done. The monitoring will be done by the state forest enterprise in collaboration with GIZ.

Technical details of the project

The water intake (and the accompanying reservoir including sedimentation tank, 20m³), where the water for Gazza will be taken from, is situated at an altitude of 1845m above sea level, in the side valley of Voru village. The Voru river shows good water flow year-round, also in the usually drier months of July and August. Water is to be taken at a point where no negative impacts to other water users are expected.

From the intake the water will flow via around 4500m-long polyethylene pipe (ø90mm) along the rocky slopes until the final point in Gazza village.

Total costs of the project: TJS 262608; TJS 48773 from which is the in-kind contribution from the community. (For more details please see annex 1) *(The detailed scheme/project (from the engineer hired by CAFT) can be attached to the doc. as an annex 1 after no objection from Jörn, and the project to be crosschecked by Parviz and CTA).*

Sustainability of the intervention

The water pipe will be constructed in close collaboration with the local population to ensure the long term sustainability of the intervention. The local population will provide in kind contribution to the project; this will ensure cost efficiency and effectiveness. Further, a memorandum of understanding between the local state forest enterprise and the village leader will be signed to ensure the protection of the above situated *Juniperus* forest on SFF land and the plantation of the fast growing trees.

Within the EbA project by GIZ the local population will be mobilized for afforestation activities on the nearby to the village slope, and to plant the area with fast growing and drought-adapted trees (e.g. poplar, willow, bitter almond, etc.). Although, the plot does not belong to SFF land, this step will ensure the protection of above mentioned SFF land from heavy damages. The plantation of fast growing trees can step by step cover their needs in forest products (especially fuel wood) in the long run.

Within the EbA project GIZ is further planning to conduct trainings to the community on sustainable forest management techniques.