

The joint expedition of scientists and NGO-s along the routes of N.I. Vavilova to the Pamirs collecting of plant Genetic Resources

It is well known that the great scientist, Academician N.I. Vavilov at the beginning of the last century has repeatedly visited Tajikistan, organized an expedition to explore the rich cultural flora and collection of the Pamirs. Finding of cultivated plants in the Pamirs have surpassed all Vavilov's expectations.

Many years have passed since then. It is well known that the agro-biodiversity in the world, as well as in our country is reduced and losing the biodiversity is an irreversible process. The main reason for the reduction and disappearance of agro-biodiversity is the result of some human activities. Therefore, at the present time it is very important to collect, study and using of plant genetic resources for research and breeding purposes, as well as the need for their conservation for present and future generations.

It should be noted that Tajikistan has signed a number of important international documents for the conservation of biodiversity and the conservation of genetic resources - such as the UN Convention "On Biodiversity" and the Nagoya Protocol on access to genetic resources and developed a National Strategy for the Conservation of Biodiversity.

To assist in the implementation of such important documents of our country NGO "Zan va Zamin", in the framework of the project "Biodiversity Conservation path to sustainable development", supported by the Christensen Fund, together with scientists from the National Center for Genetic Resources of the Academy of Agricultural Sciences of Tajikistan from August 15 to August 25, 2014 organized an expedition on gathering the collection of genetic resources of fruit and legumes and other crops to the Pamir.

The main purpose of organizing the expedition to Pamir was collecting samples of genetic resources of crops, fruit crops, as well as accessions of other cultures in Mountain Badakhshan areas.

That fact is notable, that according to statement of scientists of the Centre, this expedition is 5-th expedition on gathering the genetic resources in Pamir since the 1-st expedition of N.I. Vavilov in 1916.

The expedition was consisted of scientists - Director of the National Republican Center for Genetic Resources, candidate of agricultural sciences Mavlon Pulodov, Deputy Director of the Centre, the candidate of agricultural sciences Zebo Muminshoeva, Scientific Secretary of the Centre, the candidate of agricultural sciences, Shoista Mubalievva, as well as representatives of the public organization "Zan va Zamin" - Muhabbat Mamadalievva Candidate of biological Sciences, Nigina Kayumova, Sitora Azizova and operator of TV "Safina" Navruzjon Saidov.

During the preparation for conducting of the expedition there were developed a science-based optimal routes of the expedition, identified target crops and timing of collection gathering, prepared the necessary documentation and maps of the studying region.

The expedition began with the collection and studying of the genetic resources of fruit crops in the approved route through the locality - Kalaikhumb (Chorf - Viskharf -Kurgovat - Poshharv), Vanj (Chihoh -Bunay - Rav - Teharv - Rowand - Shirgovad - Vishharf) and further settlements Rushon - Khorog - Ishkoshim.

During the expedition were found rare varieties of wheat, rye and barley, a rich variety of fruit crops - mulberry, apple, pear, apricot, such as local apple varieties, like "shlmonseb", "sangseb", "Davlatmand", "darmorah" "surhakseb", apricot "Daragh", "Kibirev", "Makhmur", mulberry "Rovani", "Revich" and many more, each of which had its own characteristics. In Darvoz area in the smallholding of the habitant of "Vishharv" village Rahmon Habibov (79years old) was

found a rare local variety of apple - "charmiseb" and apricot local varieties "Kibra." In Vanj on the plot of Rahmon Loikov was found a local julienne "wai-wai." For farmers in these regions the most characteristic and important was the fact that people here cultivate mainly local varieties of cereals and legumes. Farmers in their practice are using mixed crops of peas, rye, barley and wheat.

In Panjshanbeobod village of Vanj district Shekhova Kandinamo collects herself the seeds; she never buys the seeds from the market. She only uses her seeds for sowing and planting crops. On her homestead we found the local varieties of onion, cucumber, tomato, bokilo, peas and etc. Thus she provides herself with the seed and also gives them to her neighbours and relatives.

Along with the gathering the collection of the expedition members have met with many farmers, simple people, agricultural workers, with scientists from the Pamir Biological Institute, with the staff of the reference station Pamir Biological Institute in districts of Vanj, Darvoz and Ishkoshim, with representatives of local authorities in some areas. During the meetings and conversations they have discussed about the local varieties, exchanging opinions and received lots of information about the importance of the preservation of these valuable genetic resources.

Accessions collected during the expedition are of great importance in the scientific and breeding works of scientists, as well as enriching the genetic resources of the country.



Survey grain crops ("Shidz" village, Rushan district).



Habitant of “Panchshanbeobod” village (Vanj) Shekhova Kandinamo tells about her experience on collecting and seed preparation.



100 year old apple tree of local varieties "Mirzosalmoni". Collecting of scions for budding





Sorted samples gathered genetic collection

