

Title

Conservation and sustainable use of grapevine genetic resources in the Caucasus and Northern Black Sea Region

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Abstract

Grapevine biodiversity in the Caucasus and Northern Black Sea Region is widely recognized for its global importance. The following reasons make its conservation and sustainable use particularly urgent: 1. the large number of traditional local varieties in the range of 600-1500, existing in the region; 2. the presumed relevance of these resources for the development of European modern cultivars; 3. the economical difficulties in the countries with economies in transition, which do not allow them to adequately protect biodiversity of local varieties; 4. the occurrence of grapevine's wild ancestor, *Vitis vinifera* ssp. *silvestris*, throughout the Region; 5. wine production as a major potential source of income for the local population in the low-income transition countries of the Region.

In 2004/2005, significant progress has been made within a collaborative project aimed at strengthening the capacity of the six countries of the Region (Armenia, Azerbaijan, Georgia, Moldova, Russia and Ukraine) to ensure the long-term maintenance of *Vitis* genetic resources, including both the cultivated traditional varieties and the wild resources. In particular, the activities aim at identifying, collecting, characterizing and conserving the diversity of grapevine genetic resources, as a basis to improve local viticulture and wine making industry.

Each country made a comprehensive inventory of their grapevine collections. Based on the inventories, a joint database was established. It contains 2523 accessions existing in 13 collections. Digital images of autochthonous varieties have also been collected by the project partners. With regard to conservation

activities, two new collections of local varieties were established in Georgia (with 230 accessions) and in Armenia (200 accessions). The Anapa collection (Russia) was enlarged. Characterization of local grapevine varieties was initiated in each country: The inventory of wild grapevine has also been carried out by organizing expeditions in each country, which allowed discovering and localizing a large number of still existing wild populations.

Furthermore, identification of local varieties in old vineyards on the territory of the countries was achieved. Capacity has been strengthened by two “Vitis Fellowships” and through the development of a molecular laboratory at the Institute of Vine and Wine “Magarach” for future investigation grapevine varieties by molecular markers. Archaeobotanical research in the field of ancient grapevine biodiversity on the territory of project partner countries was facilitated in the framework of the project.

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