

Title: Agrobiodiversity in rural Bulgaria – plant genetic resources and biocultural transformations

Introduction. As a result of the restitution in the 1990s the Bulgarian state-owned large-size farming enterprises were fragmented and land was distributed among thousands of small owners many of which were not prepared to start agricultural business and preferred to sell their land. Consequently, the Bulgarian agricultural sector today consists of few mainly grain-producing private holdings and numerous mainly small, extensive, semi-subsistent fruit and vegetable farms. Thus, during the last 30 years, depopulation in Bulgarian rural areas have accelerated and led to a decline and deterioration of (traditional) agricultural livelihoods and to a disruption of local food production on a national scale. Private farmers cannot effectively sustain local plant genetic resources that, in the past, contributed to the economic sustainability and positive image of rural areas. We have explored and documented the current state of local plant genetic diversity and how it is preserved in Bulgarian rural gardens and have approached possible opportunities and obstacles of small-scale farmers and food producers whose production and sustainable farming practices depend on these gardens in times of global climatic and socio-cultural transformations.

Methods. Interdisciplinary ethnobotanical and ethnographical field work was carried out in villages and small urban settlements situated in four provinces in South and North-West Bulgaria. We focused on mountainous and semi-mountainous regions where agriculture was an additional source of income and traditional extensive agricultural practices were still maintained. Semi-structured interviews were performed in 32 settlements together with surveys of the plant composition of home gardens and available historical/archive resources.

Results. The current study provides evidence that cultivation of specific local crops and landraces together with the related traditional and modern knowledge are still maintained by interested individuals mostly for home consumption. Many of these landraces were already neglected crops during the Communist period but have found their rather cultural than economic place in the rural home gardens or small agricultural plots near urban areas. In remote areas people tend to rely more on home-selected and home-grown garden produce. Home gardens provide fresh seasonal food (thus diversifying summer and autumn vegetarian options) and raws for home-made preserves, many of which are a part of family traditions. Amateur plant conservation and maintenance of favored landraces are still practiced in all studied regions. Senior citizens are frequently trusted as keepers of old or rare plant genetic resources. Folk and professional selection of old Bulgarian varieties are described as “better than those from the market”, charged with nostalgia and even turned into memorabilia and/or connection with close and distant interrelations. On the other hand the innate interest of our respondents to new and exotic crops has resulted in the import and exchange of various species, often regardless of their hardiness or invasive potential. Changes in climatic, biological, economic and socio-political circumstances are recurring themes in the interviews, showing complex fluctuations that shape present personal agro/horticultural choices.

Although local crops and landraces in Bulgarian home gardens are mainly a food resource, their cultural value should also be considered as a part of their complex valorization. Gardens in rural Bulgaria are reservoirs for neglected field crops (i.e. grass-pea, cowpea and black eyed pea) and also for old Bulgarian varieties and landraces that have originated locally but have never reached industrial scale of cultivation. Very few of these land races are currently produced for the market and/or included in other business model. In their quest for identity local communities often select these “iconic” crops to be celebrated at modern fests where the perception about them is reshaped and their value is reconsidered. Such fests promote these crops (i.e. Smilyan beans, Kurtovo Konare vegetable landraces, etc.) and support local business related to them. These fests also contribute for the popularity of the landraces and their distribution to other regions. The positive response to local biocultural heritage stimulates the local communities to further investigate their genetic resources and consequently consider their preservation.

Discussion and Conclusions Local plant genetic resources sustain local food traditions, food sovereignty, and production of quality food all around the world. However, the unsustainable shift to subsidizing big farms (often monocultures based on imported seeds) in the last 15 years has pushed local varieties and landraces in the backyards compromising the once recognizable image of Bulgarian agricultural produce and food sovereignty in one of the EU Member states. Moreover the growing discontent of imported plant food stimulates the demand for quality produce with local origin and reliable quality both in rural and urban areas. Many of the studied home gardens provide (seasonal) food

sustenance in rural areas, especially for communities with low-income and/or in regions with underdeveloped social infrastructure. Home-grown garden produce, especially from local varieties, is regarded not only as food but also as a source of self-pride - the well-kept garden contributes to the positive image of a capable owner. Preservation of local crops resistant to drought, knowledge on collection of hunger foods from the wild and general willingness to participate in nature protection are positive prerequisites for community strategies for adaptation to climate change. They can be also the fundament of urgently needed grassroots educational/awareness activities, especially among young people and agriculture and food processing entrepreneurs. We have assumed that home gardens in rural Bulgaria partially compensate the major gap in locally produced food, especially unprocessed and artisanal products, on the Bulgarian market. We claim that the potential of food-related local businesses involving sustainable (re)innovative products and practices based on preserved local bio(cultural) resources has been utterly undervalued. Options for overcoming of these negative tendencies are discussed.

Acknowledgements: This work was supported by the Bulgarian Ministry of Education and Science under the National Research Programme "Healthy Foods for a Strong Bio-Economy and Quality of Life" approved by DCM # 577/17.08.2018". Field work was funded under project DN10/1/2016 "The Garden: Site of Biocultural Diversity and Interdisciplinary Junction" funded by National Science Fund.

Contact information

Teodora Ivanova¹, Valentina Ganeva-Raycheva², Yulia Bosseva¹, Dessislava Dimitrova^{1,3}

¹Institute of Biodiversity and Ecosystem Research, Bulgarian Academy of Sciences, Sofia, Bulgaria

²Institute of Ethnology and Folklore Studies with Ethnographic Museum, Bulgarian Academy of Sciences, Sofia, Bulgaria

³Slow Food International counselor for the Balkans

Presenting author: Dessislava Dimitrova (dessidim3010@gmail.com)