

Narrative Report 2022

to: Heidehof Stiftung GmbH

Community Seed Bank in Korca (CSBK) revitalizes agrobiodiversity in Albania

WP1. Board is created with 7 people, out of which there are 3 seed-saver farmers, Robert Damo from OAA as the head of the board, 1 student from university of agriculture, and representatives of the municipality and the school where CSB is created. The basic thing to be treated by the board are discussed in the first meeting. (Photo 1) The Board is coming to have a meeting at least each 3 months.



Photo 1. First board meeting.

WP2. *WP 2 Set up the physical infrastructure of CSBK*

The infrastructure to be set up is designed based on the model of similar CSB in Shkoder, adopted to the conditions in Korca. (photo). The basic equipment is: The equipment for saving the seeds up to 50 years are bought. The refrigerator to save the seeds with the capacity of up to 150 vegetables' cultivars is installed. It is a professional refrigerator with -20°C, made in Italy. OAA was lucky to get a 20% discount on that main equipment. The other important equipment bought and installed is the germinator, also made in Italy. A thermograph connected with the program of saving and transmitting the data of temperature is on place. The packaging for 1-3 years is solved with special glass jars. The stability of electricity and the cost is guaranteed by the school, according to the agreement with OAA. The company offered the guarantee for a year.



Photo 2. Equipment at CSB Korce

WP 3 Field activities

The plot in school to be planted with farmer's varieties was fixed. It is around 1500 m².

The parcel is ploughed in order the soil to be ready to be planted with farmer's varieties of vegetables: tomato "sereke", tomato "sanjollas", pepper "poce", pepper "gogozhar", "leek of Korca", Salad "marule", "bean of Kabashi", "bean of Aishe", "local eggplant" etc.



Photo 3. Appointment of the parcel and preparation for planting.

In order to compare farmer's varieties in situ me farmer's varieties in GenBank, an extra effort is done by putting out from GenBank around 3000 seeds of farmer's varieties, as above. There are planted in a greenhouse to germinate and there are made all necessary agricultural services providing adequate temperatures, humidity, etc., in order to be planted in the right time in the open field. (photo 4).

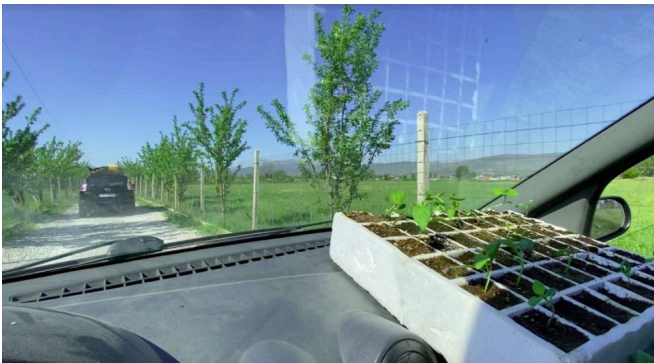




Photo 4. The seedlings are prepared transported from Tirana to Korca.

Base on a careful scheme prepared by the experts, the seedlings prepared by OAA and also prepared by selected seed – saver farmers were planted in the open field more than 30 vegetable farmer's varieties, at the optimal time. (Photo 5)



Photo 5. Field was planted

People are hired to plant them, irrigate and all necessary agricultural services. The germination has been between 90-95%. (Photo 6).



Photo 6. Agricultural services to planted vegetables.

A field visits is organized on June with key seed-saver farmers, with participation Prof. Sokrat Jani and Prof. Robert Damo. It was a workshop in the field. (Photo 7)



Photo 7. An intensive information and communication on the field with seed-saver farmers.

Expeditions are realized on some villages and are collected seeds from more than 20 vegetables, mainly beans. (Photo 8)



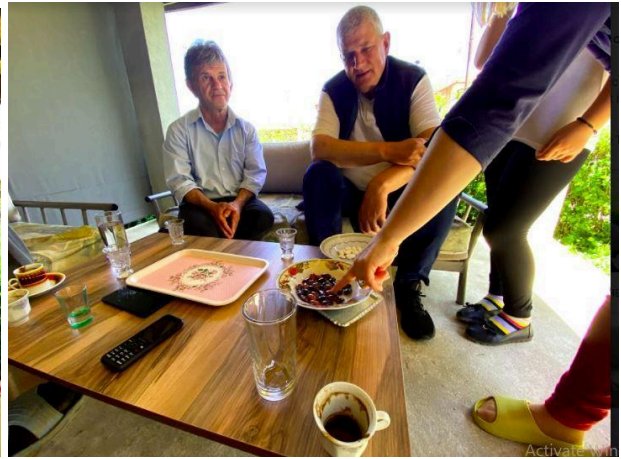


Photo 8. More contact with farmers, more farmer's varieties are collected.

OAA expert, prof. Damo daily services has been properly done. There has not been chemical fertilizer treatment, due to the fact that the soil was previous years planted with alfalfa. (Photo 9)





Photo 9. Daily services in the planted parcel of the Community Seed Bank – Korca.

The main activity culminated on the “open day” where many stakeholders took part, seed-saver farmers, local authorities. In the morning was done a training with farmers and have been given certificates to the selected distinguished seed – saver farmers. Then the visit was done by the whole group to the field and after that was organized a buffet with all the fresh or slightly cooked vegetables from the field of the experiment. (Photo 10)



Photo 10. Training and “Open Day 2022- Community Seed Bank – Korce”

After the harvesting of ripe fruits some measures of characteristics of varieties are done (Photo 11, 12, 13)



Photo 11. Different farmer's varieties of tomato.



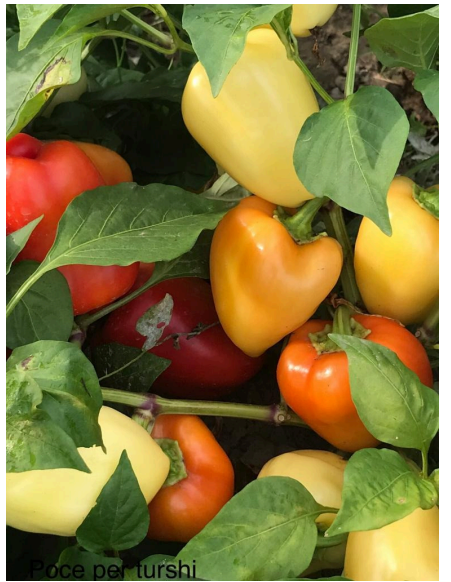




Photo 12. Different farmer's varieties of pepper



Photo 13. Different farmer's varieties of eggplant.

The investigation to find other lost farmer's varieties of vegetables and other crops is going on (photo 14).

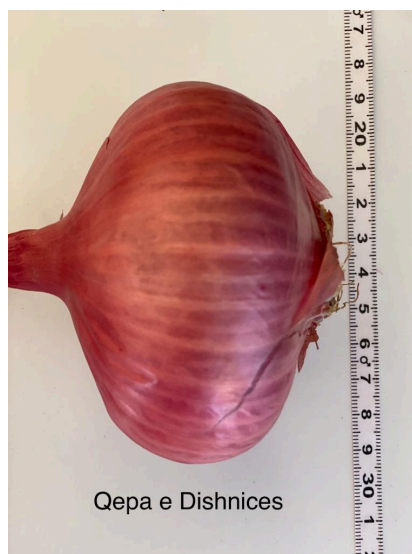




Photo 14. Other farmer's varieties are identified

Activities related to wild relatives of Brassica spp that are in danger of extinction

Some seeds of Brassica, which are collected previous year are planted at the beginning of spring close at his habitatat home conditions, insuring the gemination by putting inside the home during cold nights. The produced seedlings are planted on May at the very similar 2 habitats of Brassica, in terms of soil and marine air influence. The 2 places are in Orikum and Karaburun. The plots are surrounded in order not to be reached by sheep and goats or cows. It is not fully protected by turtles. However, the seedlings are well adopted at the new places, after planting and irrigated. (Photo 15)





Photo 15 Brassica planted in Karaburun peninsula





Photo 16. Brassica planted in situ at Dukat village.



Photo 17. New seeds of cultivated Brassica will be harvested in July 2022

During 2021 has continued the investigative work for "Brassica incana, Brassica cretica and Brassica villosa". New seeds of Brassica are collected in a new place, which is named Canyon of Gjipea. For the "Gjipe Canyon" the monitoring focused on the southern side of the canyon and the number of individuals for this area was rare with an approximate number of 18 individuals per 1.4 ha. (Photo 18).



Photo 18. Brassica found at canyon "Gjipe"

New plants have been, also, able to be discovered in the place named Porto Palermo. Due to very difficult relief the drone technology was used.

During the drone monitoring, the realized photos showed the presence of individuals of brassica spp. (Photo 19)

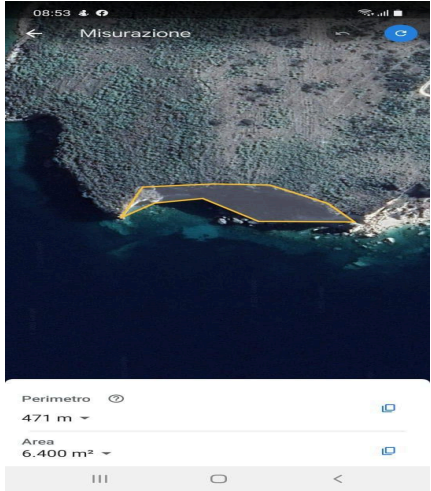
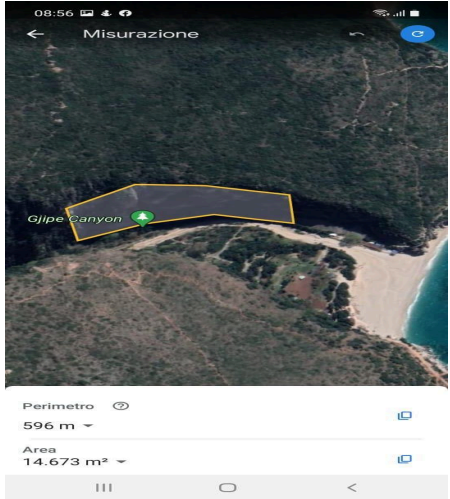
For the rocky area south of Porto Palermo, a larger number was identified, reaching approximately 30 individuals for an area of 0.65 ha *.

During the monitoring the species could not be classified by species due to the impossibility of sampling as leaves or flowers. The classification will be done during the year 2022 and 2023 after new planting of prepared seedlings in first days of May.



Photo 19. Brassica fixed by drone at Portopalermo

Tab. 1 The coordinates and the area of brassica at the canyon of Gjipe and Portopalermo

Date	Place of monitoring	Coordinates	Area	No of individuals	Polygon
06.04 2021	Porto Palermo	40 03 09 N 19 47 36 E	0,64 ha	30	
08.04.2021	Canyon of Gjipe	40 07 40 N 19 40 23 E	1,46 ha	18	

*The number accounted is approximate.

WP 4 Promotion and public interaction

On 5 June, the World Day of Environment, Lavdosha Ferruni has been part of 2 TV panels, including national TV. Genetic resources were one of the topics to be discussed (Photo 19)

Preparation with some professional records for video making are done.



Photo 19. Lavdosha Ferruni invited on TV talking for environment and genetic resources.

OAA is interested in collaborating with other actors in the region. In this framework is organized a meeting with the head of the foundation “Emanuel”, which is working in supporting vulnerable families through agricultural work in Korca municipality. (Photo 20)



Photo 20. Meeting with director of the foundation “Emanuel”.

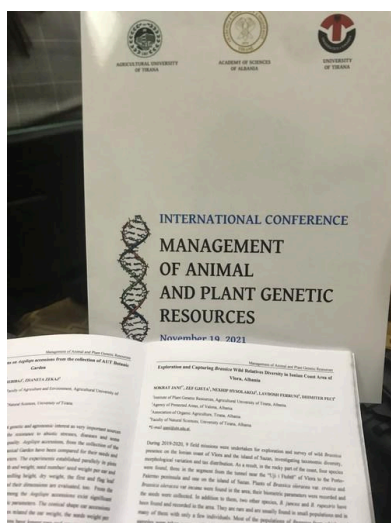
Three of the experts of OAA, part of the project team have actively participated in 2 conferences online organized by Greek organisation AEGILOPS in the framework of - Network for Biodiversity and Ecology in Agriculture. OAA has contributed in prepare the memorandum of understating for the network.

OAA is invited by one of the members of the network Arche Noah in a visit to North Macedonia (Photo 21). Actually, OAA is elected as board member of such network.



Photo 21. Visit in North Macedonia in the framework of the Network for Biodiversity and Ecology in Agriculture, September 2021.

A very good promotion of the project was the referring in the International Conference “Management of animal and plant genetic resources” organized by the Academy of Science of Albania on 19 November. In this conference 3 experts of the project led by prof. dr. Sokrat Jani were invited to present the case of Brassica spp., in this conference. It was published in the abstract of the conference and was referred live in the conference, by Prof. Dr. Sokrat Jani.



International Conference on Management Animal and Plant Genetic Resources
Tirana, November 19, 2021

Exploration, evaluation and conservation of *Brassica* wild relatives diversity in Ionian coast of Vlorë, Albania



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Photo 22. Presentation at the International conference, Academy of Science, Albania, 19 November 2021

The most effective promotion has been the publication of the video produced by the project for the importance of the activities of CSB – Korca, particularly related with the impact in adaptation to climate change.

<https://www.facebook.com/mjedisi.al/videos/4935262359895392>

The video has already 13. 2 K views, and more than 20K reach. Since the video is done in English it is expected to disseminate message also in other countries.

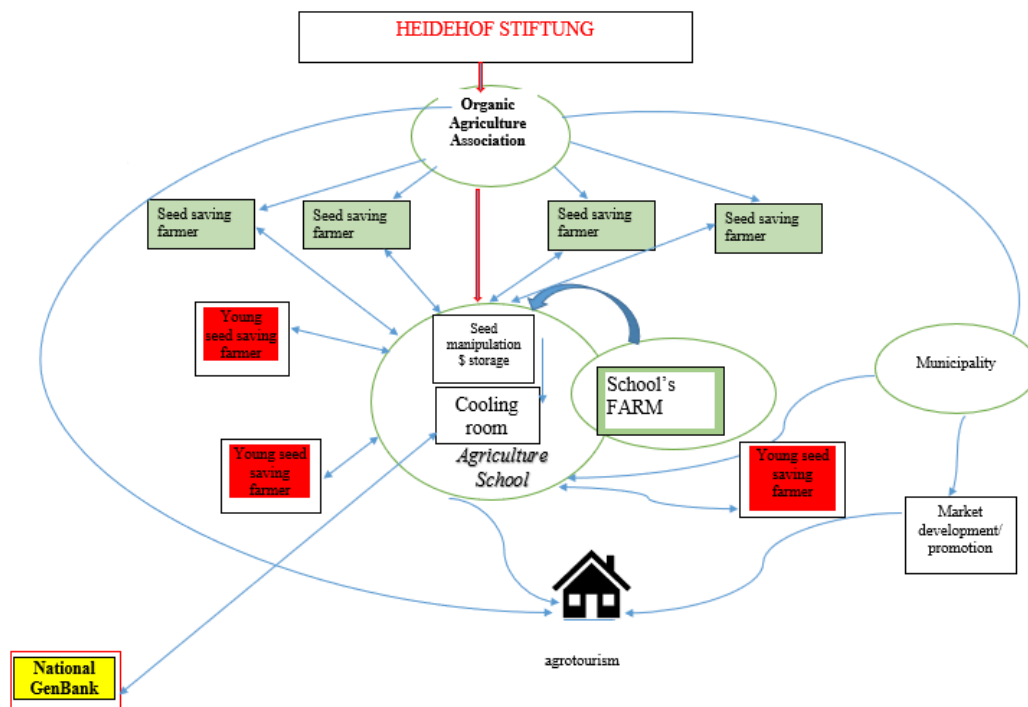
Some conclusions:

- The project supported by Heidehof Foundation during 2020 – 2021 has given a strong message to the public in Albania that should seriously consider the role of saving in situ and ex situ the farmer's varieties of different crops and more specifically of vegetables concerning the adaptation to climate change. During 2021, for example, was realized that amongst several different varieties of planted beans, exactly at the same day and applied the same technology of cultivation, one them, named "saçme" have had abundant production different from other varieties that have failed in normal production, due to high temperature at the flourishing time. The experts explain the success of "saçme", due to genetic feature of such varieties to turn the leaf in the position to avoid the effect of high temperature. In

the photo below one can realize it just by looking the different position of leaf in the morning and in the midday.



- It was created the nucleus of Community Seed Bank (CSB)- Korca as a group of seed-savers led by local expert, part of OAA. In the group is organization part also the municipality of Korca and the agrobussines school Irakli Terova. The scheme as it was foreseen is becoming functional, almost in all elements as below. Some efforts should be done in relation to agrotourism development.



- An adequate infrastructure of saving the seeds is set up at the local level.
- There are 63 accessions identified, collected, tested (most of them at the experimental plot of OAA) that are already put in the secure manner to be saved ex situ for several decades at the bank of CSB Korca.
- It was established a concrete communication with the Genetic Bank of Albania (GBA). OAA contributed by delivering 42 accessions, mainly vegetables, collected in the region of Korca to be saved at GBA, as well.
- It was observed that farmer's varieties need significantly less external input for a normal production.
- OAA thanks to the project achievement became member of the Network for Biodiversity and Ecology in Agriculture.

- It is clear that expanding the cultivation of farmer's varieties in a larger area and more farmers could help to reduce the effect of energy crises and a potential food crisis.
- It is clarified the situation of wild relatives of Brassica, spp, in Ionian coast of Albania considered almost lost in all rocky coastal area in Mediterranean. The project has identified the places where it is grown and could get the seeds in most of the areas where it is found. The collected seeds are delivered at the GBA and in the meantime are planted in the similar habitat. This summer OAA will harvest the seeds of cultivated Brassicas plants to go further with scientific evaluation.

30 April 2022

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