Report
on the study tour to Austria
for the seed specialists from Central Asia

A study tour to Austria for seed specialists from Central Asia was organized on 1-5 July 2013 with the objective to learn about seed production, processing, certification and marketing system in Austria. The study tour was arranged in the framework of the projects GCP/010/TAJ/AUS and GCP/RER/026/AUS: Baby 4 in cooperation with the SEC Regular Program on Plant Production and Protection. Based on terms of reference provided by FAO-SEC, the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management prepared a program for the study tour.

The tour started with a visit to the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management. The participants were welcomed by Ms. Schwartz, Deputy Director of division of FAO, OECD, Food Aid, Economic Provision. Dr. P. Zach introduced to the Austrian agriculture and seed industry with a detailed focus on priority crops, seed legislation, breeding programs, cooperation with ISTA, UPOV, OECD, public and private partnership in seed sector, establishment of GMO-free zone in Austria to develop seed market, development of organic farming and increasing demand for seed, etc. The study tour was mainly focused on breeding and seed production, certification and marketing of cereals as priority crops in Austria. However, the participants were interested to learn more about breeding and seed production of vegetables. In this regard Dr. P. Zach provided additional detailed information.

Dr. M. Gohn presented activities of the Austrian Seed Association (ASA) whose members are 26 companies, 2 institutes and 11 individuals. Some of the participants, before travelling to Austria, attended an inception workshop of the regional project GCP/INT/123/MUL: Seed Sector Development in Countries of the Economic Cooperation Organization (ECO) held in Ankara, Turkey on 27-28 June 2013. Therefore, they were interested to know how a national seed sector could be represented in the regional level and how cooperation between the countries could be established. Dr. M. Gohn gave information about the cooperation between ASA and the European Seed Association (ESA), which was established in 2001. The members of ESA are 36 national seed associations, 43 direct company members and 29 associate companies. The main objectives of ESA are to assist in solving problems and representing the seed industry in EC and other institutes of EU, like the Community Plant Variety Office (CPVO). Considering this structure, the participants discussed a possibility of establishing a similar to the CPVO unit under ECO that should coordinate and facilitate harmonization of seed legislation and enhancing seed market in the region.

Participants were interested to learn about the development of cereal breeding presented by Dr. Brandstetter. The breeding strategy focuses on increasing cereals yield until 2040 by improving varieties that should increase yield by 60-70%. It also foresees development of non-GMO crop production and seed production for organic farming. It should be noted that Austria has achieved significant progress in organic agriculture and its experience has to be studied and considered when implementing GCP/AZE/006/TUR: Development of organic agriculture and institutional capacity building in Azerbaijan.

Dr. P. Zach presented information on the Austrian seed economy. Various issues related to institutional structure, functions and mechanism for developing seed sector, motivating plant breeders by establishing royalty collection system, certification and labeling of seed lots, etc were brought up on this subject.

The participants visited the Austrian Agency for Health and Food Safety (AGES) to learn more about variety testing and seed certification system in Austria. The AGES has several departments responsible for variety testing and registration, seed quality control and certification, plant health and

phytosanitary, veterinary medicine. Detailed presentations were given on seed certification, quality control, variety testing, denomination and registration and variety protection services provided by AGES. The discussion brought up issues related to registration of varieties in the National and EU Catalogue, information exchange, movement of seeds, protection of plant breeders' rights and royalty collection system, applications for variety testing and seed certification, functions and responsibilities of authorized seed certification laboratories, fees for AGES services, etc.. It was interesting for the participants to learn how these institutions work together under a single unit because the above mentioned institutions function independently in all Central Asia countries and have a weak cooperation between each other.

The participants visited the AGES laboratories and facilities that were perfect not only for seed testing, but for carrying out capacity building activities as well. AGES annually provides trainings for national seed inspectors and authorized institutions. Visitors from other countries might come to AGES for a long-term training.

Conducting a training for variety and seed testing specialists in AGES and involving its experts in national and regional activities should be considered in the future.

The participants visited a cereal seed company Probstdorfer Saatzucht. Detailed information on company activities was provided by the General Manager of the company Dr. M. Gohn, who also gave a tour of the seed laboratories and a seed processing plant. For most of the participants, it was a first visit to such a big company with modern facilities on seed processing, testing and packaging . The company has representations in Ukraine, Check Republic, France, Russia and Greece.

The company has been running its own breeding program since 1947. In 2000 the breeding program was merged with Saatbau Linz company and established Saatzucht Donau, which is a leading breeding company in Central Europe. Currently, the company carries out cereals (winter wheat, barley, oats), soybean and sunflower breeding activities. The main objective is produce high quality wheat, fusarium resistant, winter hard and high protein soybean. The company is collaborating with ProGen (Turkey) in testing winter wheat, drought tolerant features, conducting genomic analysis and testing higher yielding capacity, etc. Wheat landraces collected in Turkey are included in crossing programs. The company applies haploid technology and tests hybrid generations in Chile to speed up a breeding process.

The participants also visited laboratories, greenhouses and experimental fields of the Department for Agrobiotechnology, IFA Tulln and learned about a breeding program that is focused on developing diseases (fusarium, bunt, smut) resistant winter wheat, high protein and sugar soybean, diseases resistant maize varieties, etc. The company also develops winter wheat varieties for organic system that is characterized by high resistance to bunt and smut in order to avoid fungicide seed treatment. The germplasm evaluation identified that varieties developed before 1950's (before seed treatment was introduced) had higher resistance to bunt and smut diseases. In this regard, study of farmers' varieties and landraces is very important for breeding programs in order to develop diseases resistant wheat varieties.

The participants also had a chance to get a short tour of Vienna and visit historical places. The Federal Ministry of Agriculture, Forestry, Environment and Water Management of Austria arranged a farewell lunch in the traditional Austrian "Heuriger Josef Nagl".

In general, the study tour had a short but an intensive program, which went through all steps of seed chain – from breeding of plant varieties to seed certification and marketing. The participants expressed sincere appreciation to FAO and the Government of Austria for providing an opportunity to participate in the study tour and get inside of the seed industry in Austria.