### Reporting Agency: United Nations Development Programme Country: Republic of Armenia

### **ANNUAL PROGRESS REPORT**

### No. and title: 00091028ENPARD Technical Assistance, Producer Group and Value Chain Development

### Reporting period: 01 January – 31 December 2016

### **BACKGROUND**

With funding from the European Union, the European NeighbourhoodProgramme for Agriculture and Rural Development (ENPARD) supports the Ministry of Agriculture of RA in ensuring an efficient and sustainable agriculture that contributes to better living conditions in rural areas. Under ENPARD Armenia a technical assistance component focuses on producer group and value chain development. The component is implemented by UNIDO and UNDP with funding from the EU (2.4 million euro) and co-funding from the Austrian Government (1 million euro). In particular, the project aims to strengthen producer groups, effectively engage producer groups in value addition activities, strengthen value chains that provide improved access to affordable, better quality food, contribute to the development of rural areas, improve access to local and international markets, and ensure the introduction of environmentally-friendly farming and food processing practices. Direct beneficiaries of the project include agricultural producers, members of producer groups, cooperatives, as well as Armenian consumers. The project also focuses on women, youth, and other vulnerable groups. The project implementation period is 2015-2017.

Detailed information about implemented activities is presented below.

### **I. RESOURCES**

**00091028 / ENPARD Producer Group and Value Chain Development**

**Total Approved Budget for 2016: USD 1,105,160**

European Union: USD 742,398

Austrian Development Agency: USD 362,762

### **II. RESULTS**

## Main activities implemented and achievements as of December 2016

Most of the foreseen activities are completed or close to completion. Detailed information related to the actually implemented and planned activities as well as achieved results as per December 2016 are shown below.

**Results:**

***Finalization of producer groups***

While the selection of producer groups was largely completed in 2015, the final portfolio of groups was adjusted during the first half of 2016. Changes occurred primarily as a result of the unwillingness of some groups to participate in co-financing of project activities. The final selection of groups is shown in the table below.

|  |  |
| --- | --- |
| Marz | Value chains |
| **Buckwheat production** | **Buckwheat processing** | **High value cheese** | **Dried fruits & herbs** | **Non-traditional vegetables** | **Fruits & berries** |
| Aragatsotn | 6 |  | 2 | 3 |  |  |
| Gegharkunik | 5 | 1 | 1 | 1 |  |  |
| Kotayk | 1 |  |  | 1 |  |  |
| Lori | 2 |  |  |  | 4 | 2 |
| Shirak | 19 | 1 | 2 | 1 |  |  |
| Vayots Dzor |  |  | 1 |  |  |  |
| Ararat |  |  |  |  |  | 1 |
| Total  | **33** | **2** | **6** | **6** | **4** | **3** |

***Statements of Intent***

SOIs were signed between the project and the producer groups, as the basis of collaboration and co-investment. The SOIs detail the responsibilities of each UN agency as well as of the respective producer group, noting the equipment to be provided and describing the commitments involving construction/renovation of sites and co-financing. The documents were signed by the responsible coordinators from the UN agencies, as well as by all of the farmers in the groups, with passport numbers and other details included.

***Cooperative registration***

The project hired consultant to support the groups with cooperative registration process. All of the cooperatives in the table above were registered as Agricultural Cooperatives with the State Registry of the Ministry of Justice, including the two head cooperatives for buckwheat hulling. Registration included discussions and trainings with the groups, adoption of the cooperative charter, and selection of a president. All of the buckwheat production cooperatives met for General Assemblies (separately in the two clusters Shirak-Aragatsotn and Gegharkunik-Kotayk) to form the head cooperatives and elect the presidents.

***Business plan development and presentations***

In early 2016 trainings on business skills were provided and individual business plans were developed for the primary producer groups (initiated in 2015). In February, the primary production groups presented their business plans. All business plan presentations included detailed discussions of profitability, cost-price breakdown, breakeven, a time schedule of cultivation works, production and marketing plans, and a financial plan showing the share of costs covered by ENPARD and those paid through the farmers’ own investments.

*Schedule of the business plans presentations*

|  |  |  |  |
| --- | --- | --- | --- |
| Region | Date | Participants | Communities |
| Shirak | 08-09.02.16 | 21 | Akhuryan, Hacik, Nor Kyank, Zuygaghbyur, Tavshut, Bavra, Arapi, Aregnadem, Sizavet, Haykasar, Krasar, Shirakavan, Musayelyan, Hartashen, Karmravan, Goghovit, PokrSepasar, Jrapi, Amasia, Mets Sepasar |
| Lori | 10.02.16 | 15 | Mets Parni, Gargar, Koghes, Vardablur, Bovadzor, Kurtan, Mets Ayurm, Lernantck |
| Aragatsotn | 11.02.16 | 8 | Suser, Nor Artik, Zarinja, Tatul, Zovasar |
| Ararat | 4 | Ararat |
| Gegharkunik | 12.02.16 | 10 | Tsovagyugh, Geghamavan, Solak, Kut, Varser |

As a result of the business plans presentation 41 primary producer groups, of which 34 groups of buckwheat, 4 of non-traditional vegetables, and 3 of fruit and berries were selected as ENPARD UNDP component beneficiaries.

***Buckwheat Value Chain***

**Soil analysis** was conducted by a subcontract company taking into attention soil samples from all the communities planning to sow buckwheat, and based on the analysis results, necessary recommendations were made to the farmers regarding usage of fertilizers and other indicators.

**Buckwheat seeds and fertilizers** were imported and distributed to the buckwheat primary production groups. In total, 45 tons (43.8 tons for sowing and 1.2 tons reserve) of seeds and 164.1 tons of fertilizers were distributed to the groups. In total 547 ha of buckwheat was sown. Several buckwheat communities suffered hail damage, and were supplied with the surplus seeds purchased.

**Humidity meters** (for testing the moisture level of the buckwheat before delivery to the hulling factory) were purchased delivered to the cooperatives, following their registration.

**Two international consultants** from Russia arrived in Armenia and provided trainings on buckwheat cultivation, methods of operating and adjusting tractors, seeding machines and combines, to ensure high yield and the efficient collection of buckwheat from the fields. One of the consultants was an **expert in agronomy** (and returned for a follow up training later in the season), and the other is an **agricultural mechanic.** Many of the buckwheat farmers were continually in contact with the consultants throughout the year by telephone. The impact of the training was evident in the yields of those farmers who most closely followed the production advice.

**The buckwheat harvest** was complete in August-September. The farmers have stored the buckwheat in their communities, awaiting the construction and launch of the hulling factories. The average yield attained was 1,204 kg/ha (compared to an average yield of under 1 ton/ha in Russia), and a total production of 615,309 kg. The highest yields were recorded in the Bavra region, at 3 tons/ha. The majority of the hail affected fields were able to harvest around 550 kg/ha, sufficient to cover production costs and prevent the households from accumulating debt.

While no producer group received support specifically in honey production, beekeepers in the communities were recommended to move hives near to the buckwheat fields to improve pollination. **A beekeeping and honey production consultant** was contracted to deliver the practice-based trainings to the beekeepers in communities cultivating buckwheat. By improving their practices, reducing their costs and hive losses, and increasing their honey yields, the beekeepers will be incentivized to continue to provide their hives to pollinate the buckwheat fields. Four of the planned training modules have already been delivered to the 118 beekeepers in 33 buckwheat producing communities, who moved hives nearer the fields.

**Two buckwheat hulling factories** are constructed in Tsovagyugh and Bavra communities (with ENPARD UNIDO component as a lead partner). Both factories became operational in December 2016. UNDP component also supported in procurement and installation of **truck scales** near the factories, where each primary cooperative will weigh their harvest and then unload in into the factory. The installation of both scales is complete in December 2016.

**A Factory operations consultant for the buckwheat factories** was recruited to organize the business processes, work with each primary production group and and select staff for the factories. Her responsibilities include supporting the board of the cooperatives to hire employees, establishing procedures for receiving, hulling, storing and marketing buckwheat, and ensuring that all processes are well documented and integrated into the accounting system. The operations consultant has developed the job descriptions of the positions necessary to operate the buckwheat hulling factories. Announcements were distributed to the groups, and 11 applications received for the Tsovaghyugh factory. The consultant and buckwheat field operations manager conducted interviews with eight people in the Tsovagyugh community for the selection for the position of general manager, operator and workers. The same process is underway for the Bavra factory. All of the interviwed people participate in trainings of factory operations during the installation and testing of the equipment by the Ukrainian technicians, and the most capable and active individuals selected for the positions. Additionally, the accountant has developed the system of supply of the buckwheat from the villages to the factory, with a method of evaluating the cleanliness and moisture level of the buckwheat, with receipts provided to all parties to ensure agreement. This system will be implemented immediately following set-up of the equipment.

***Non-Traditional Vegetable Value Chain***

Four energy efficient plastic (tunnel) **greenhouses with drip irrigation** were installed at the sites of the four non-traditional vegetable groups, in Lori marz (Gargar, Koghes, Vardablur and Bovadzor communities). Each greenhouse has 135 square meters of growing space, and has 180 meters of drip irrigation installed. The communities expressed surprise at the very high quality of the greenhouses.

**Broccoli seeds** of four different cycle lengths, as well as some **gardening tools** were delivered to the broccoli producing groups. In total 180,000 seeds were delivered to the four groups. Of those delivered, 38,500 seedlings were planted in plastic pots and placed in the greenhouses in all 4 communities for the primary growing season. Some of the remaining seeds were planted for a second season, with the remainder reserved for follow-up plantings next year.

**Guidebooks for non-traditional vegetable production:** A national consultant completed elaboration of 10 guidebooks for the production of high value crops. The guidebooks on buckwheat, leafy vegetables, gourds and high-value crops were printed and distributed among the farmers and government extension agents.

Two sets of **trainings** were delivered to the members of the four non-traditional vegetable groups in broccoli production and greenhouse operations. The first training was provided by a consultant recruited by the project, and a second training was provided by a Farmer 2 Farmer volunteer trainer from the US, with the VISTAA program.

**Broccoli sales:** An intermediary introduced to the non-traditional vegetable cooperatives purchased broccoli at farm-gate in the Gargar community, about once in every 5-7 days. Overall eight tons of broccoli was produced, out of which six tons was sold to the intermediary for 450-500 AMD/kg, generating revenues of 2.7 million AMD (5,183 euro) for the four groups. The intermediary delivered to various sales channels, with a majority being sold through Yerevan City and Carrefour supermarkets. The other two tons of production was sold through other local channels. (Approximately an equivalent amount of broccoli, or about 8 tons, was grown for home consumption by the participating households in their household gardens.)

***Fruits and Berries Value Chain***

13,000 **saplings** of 3 types of raspberry and thornless blackberry were provided to the berry group. The tender did not result in sufficient amount of currant saplings offer. If available, currant saplings will be provided in spring. All the saplings were transported to the Kurtan community and planted. Total area of the berry field is 1,100 m2, and the producer group has additionally prepared the land and constructed a fence.

A tender for a **drip irrigation** system for the berry garden is closed and a company is selected. However, due to the season, it is negotiated to install the system in spring.

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The members of the berry producing group attended a **training** by an Italian berry expert organized by the FAO, in preparation to begin growing berries in 2017.

After launching and re-launching the tender for the purchase of **a handicapped-operable tractor**, the equipment supplier has been selected and contracted. The tractor arrives in mid-December. In order to receive the investment, the group’s co-financing included the construction of a garage to house the tractor.

***Communication***

* The project has cooperatively prepared several videos, the project events were covered by numerous media outlets (TV and web);
* Visits by high-level officials and ENPARD mission from Georgia and Moldova were hosted;
* The project participated in several public events, such as Europe Day, Harvest Festival, PanArmenian Expo, ArmProdExpo, etc.;
* Project visibility signposts, plaques & stickers are installed at project sites;
* Several communication materials (brochures, maps, posters) were prepared and printed and social media websites were managed.

**Expected Impact:**

Poverty reduction through new employment opportunities, diversified and sustainable agricultural practices, and increased income levels for the local farmers

### **III. FUTURE WORK PLAN**

* The tender is complete and the company is selected to conduct **agri-cooperative management trainings** for the primary producer groups (December 2016-March 2017). In addition to covering general issues and analyzing the financial results of the 2016 season, the trainers will focus especially on the implementation of cooperative employment and service contracts, as well as explaining the requirements of cooperative taxation, as required by law.
* **Buckwheat Value chain**

Bavra processing factory construction will be completed and the hulling equipment will be installed. Smooth operation of factories will be ensured. Marketing and promotional support will be provided to assure the best competitive price for the hulled buckwheat. Packaging equipment and materials will be provided to the head cooperatives. All production will be sold under the registered trademark, including designed logo and unique packaging. The technical assistance will be provided until the end of the project. Jointly with UNDP/GEF Small grant Programme, manure based natural friendly fertilizer application will be piloted on selected buckwheat fields and will be popularized among all interested primary producers during 2017.

New crops will be introduced to buckwheat primary producers to minimize market and weather related risks. Technical assistance, including GAP for new crops will be provided to the farmers to guarantee high yield. The production protocol for buckwheat processing will be developed, introduced and registered with the state standard agency.

A national promotional campaign will be organized to support ENPARD producer cooperatives. Cooperative management and marketing/sales capacity building activities will be provided to the cooperative staff.

Ongoing processing, sales and marketing will be continued until the end of the project.

* **Non-Traditional Vegetables Value chain**

The broccoli production area will be increased and new non-traditional varieties will be introduced for trial. Technical support for the new varieties will be provided and a monitoring system will be established to analyze variety trial data and expand production of the high productive crops. New cooperative members will be attracted to increase production volume and impact on rural farmers’ income. Training for the new members will be provided through the cooperative.

Training on GAP, harvest, post-harvest and storage for broccoli and new crops will be delivered. Storage facilities and packaging techniques and materials will be improved to minimize the losses.

A national promotional campaign will be organized to support ENPARD producer cooperatives. Cooperative management and marketing/sales capacity building activities will be provided to the cooperative staff.

Ongoing sales and marketing support will be continued until the end of the project.

* **Fruit and Berries Value chain**

High productive currant will be planted in early spring and the first yield of raspberry, blackberry and currant expected in fall. Drip irrigation will be installed and FAO will provide anti-hail nets. This demo farm will serve as model to share best agricultural practice in the country. New cooperative members will be attracted to increase production volume and impact on rural farmers’ income. Training for the new members will be provided through the cooperative.

Training on GAP, harvest, post-harvest and storage for berries will be delivered. Storage facilities and packaging techniques and materials will be improved to minimize the losses. Additional capacity building trainings will be delivered based on need assessment.

### **IV. FINANCIAL IMPLEMENTATION**

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| **00091028 ENPARD Producer Group and Value Chain Development** **Financial Implementation Status** Total Approved Budget: European Union: Austrian Development Agency:  | **Budgeted**USD 1,105,160USD 742,398 USD 362,762 | **Delivered****USD XX**USD XXUSD XX |  |

**Delivery Rate XX%**