

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

ANNUAL PROGRESS REPORT

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

Reporting period: 01 January – 19 November 2018

I PURPOSE

With funding from the European Union, the European Neighbourhood Programme 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 Development Agency (1 million euro). In particular, the project aims to:

- strengthen existing and establish new producer/farmer groups,
- effectively engage producer/farmer groups in value addition activities, and
- strengthen value chains that provide improved access to affordable, better quality food.

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.

In December 2017 UNIDO and UNDP requested a no-cost extension from the EU and ADA. The EU's approval of the no-cost extension was provided in June 2018. The EU approved the extension of the project until 19 November, whilst the agreement with ADA ended on 30 September.

The major accomplishments are presented below.

II. RESOURCES

00091028 / ENPARD Producer Group and Value Chain Development

Total Approved Budget for 2018:	USD 402,389
UNIDO/European Union (EU):	USD 209,608
UNIDO/Austrian Development Agency (ADA):	USD 192,781

III. RESULTS

The major accomplishments, the actually implemented and planned activities as well as achieved results as per November 2018 are shown below.

Activity 1.3: Educate producers as to organizational development options

Apart from the already organized and completed training sessions on possible structures and benefits of group organization in the agricultural sector for the farmers/agricultural producers, in the reporting period the project expert provided ongoing consulting support to the farmers/farmer cooperatives in seven regions of Armenia (Shirak, Lori, Gegharkunik, Aragatsotn, Syunik, Kotayk, Vayots Dzor). Support was provided during field visits, as well as via telephone.

Activity 1.8: The establishment of sustainable producer groups

To ensure sustainability and further expansion of the value chains, the primary production is diversified by expanding fruit/berries, non-traditional vegetables and high-value field crops varieties.

High-value field crops: Lentil, pea, chickpea and linen were sown again using the seeds from the previous year harvest (the harvest from elite seeds distributed by UNDP in 2016 can still be effectively sown 4-5 years). In total, 137 ha of lentil, 81 ha of pea, 51 ha of chickpea and 89 ha of linseed were planted using the seeds provided by the project and more than 300 tons of crops were harvested. Additionally, 106 ha of buckwheat have been planted, using the seeds from last year's harvest without any additional funding from the project. In 2018, overall over 550 tons of crop was harvested from over 464 ha cultivated area. The gross production in high-value field crops value chain was over 590,000 euro in 2018.

Non-traditional vegetables: This year, planting of non-traditional vegetables (asparagus, leek, root celery, broccoli, stem celery, fennel, savoy cabbage, red cabbage and arugula) was organized by the cooperatives themselves without any additional funding from the project. In total, eight cooperatives/groups have been established and supported in Lori (Gargar, Koghes, Vardablur and Bovadzor) and Syunik (Tolors, Vaghatin, Darbas and Angeghakot), in high-value non-traditional vegetables. Seven of the eight above-mentioned groups are women-led. In 2018, about 6.2 tons of non-traditional vegetables were harvested. The gross production in high-value non-traditional vegetable value chain was over 5,850 euro in 2018. The production is in high demand and sold in the regions, without even reaching the market in Yerevan.

Berry saplings: With the project support 10 berry orchards were established in Shirak, Lori, Kotayk, Gegharkunik and Aragatsotn marzes, with installation of anti-hail nets and drip irrigation systems, provision of high-productivity berry saplings (raspberry, dewberry, strawberry) and cultivation trainings for all 10 cooperatives in 2017. In 2018, the fruit/berry production is in high demand and sold through markets, shops, restaurants. All of the groups received ongoing consultations during the year.

Oil Extraction and Oil Bottling Equipment: The project procured three sets of Oil Extraction and Oil Bottling Equipment for the Agricultural Producer Groups. This equipment allows increasing the diversification of the products based on linseed. The increase of the market potential of this product and wider assortment of higher value added products provide additional income generating and employment opportunities for farmers.

Pea Processing Equipment: The project procured two Pea Processing Equipment for the Agricultural Producer Groups that allows peeling the harvested field crop off the pod and having clean product for selling. This equipment is essential for producer groups operations and will help to ensure increase in sales.

Activity 3.2: Support government agencies and value chain actors to better coordinate, support and link value chain components

Cooperation with MoA: The project regularly met with the representatives of Ministry of Agriculture (MOA) and partner organizations to discuss project major accomplishments, the actually implemented and planned activities as well as achieved results. These meeting also allowed to discuss the cooperation opportunities and replication of successful business models, to avoid duplication of activities, to as well as to better coordinate, support and link value chain components.

Cooperation with ADF: The project met with the representatives of Agricultural Development Foundation (ADF), to discuss the cooperation opportunities and to avoid duplication of activities. The Agricultural Development Foundation established by the Government to contribute to stable, competitive and modern agricultural development in the country and to provide public extension services. The Project also shared with the Foundation the electronic and hardcopy versions of the documents produced by the Project. The shared documents will be considered for using in Foundation's extension programs.

Work with business development service providers: The project worked with a number of business development service providers to ensure the offer of high-quality targeted services to producer groups and other actors in the value chains. The challenges faced by the producer groups/value chain actors and their needs were discussed in details to ensure the offer of high-quality targeted services during the year and beyond the duration of the project.

In particular, UNDP commissioned a Local Consultant on Business Management from EV Consulting company to conduct a business diagnostic review and update business plans for buckwheat production and processing factories in Bavra and Tsovaghyugh communities.

To help the dairy farmers to increase their productivity and quality of the milk, UNDP commissioned international and local experts to develop an innovative farmers' education approach by tackling the knowledge gaps, enhancing the availability of financing and framework of contractual farming. The proposed scheme will utilize social impact based new financial instrument, which focuses on creating measurable results and transfers the financial risk of implementation to private sector.

Activity 3.3: Improve access to primary production knowledge, price information, and extension

In order to evaluate buckwheat cultivation impact on soil the UNDP commissioned "Agrochemical Service" SNCO to conduct comparative soil analyses for the lands provided for buckwheat cultivation and for the lands provided for wheat, barley, oats, animal fodder (sainfoin, alfalfa, corn) ¹ in all 10 cultivating communities.

The supplier conducted the following analyses and works:

- Soil reaction (PH),
- Available content of humus, phosphorus and potassium,
- The location of the fields.

Agrochemical Service" SNCO conducted soil analysis in all selected locations and submitted a detailed report with the requested soil parameters, as well as describing the accomplished works, the methodology of hole digging and sampling, the list of farmers cultivating the lands by each soil sample and other data by the end of October 2018.

Activity 3.4: Develop Good Agricultural Practices (GAP) and disaster risk management approaches

Oil Extraction and Oil Bottling Equipment: The project procured Oil Extraction and Oil Bottling Equipment for the Agricultural Producer Groups. This equipment allows increasing the diversification of the products based on linseed. The increase of the market potential of this product and wider assortment of higher value added products provide additional income generating and employment opportunities for farmers. In March 2018 the vendor completed the delivery and installation of three Vegetable oil presses and bottling equipment to the cooperatives of Mets Parni, Norabak and Tatul communities. Mets Parni cooperative will serve the cooperatives of adjacent communities of Lori and Shirak regions. Norabak cooperative will serve the cooperatives of adjacent communities of Gegharquniq region. Tatul cooperative will serve the cooperatives of adjacent communities of Aragatsotn and Shirak regions. The oil presses and bottling equipment will allow to extract oil from linseed and other locally harvested oil-rich crops using a cold press technique, which allows to preserve valuable nutrients, vitamins and minerals in the vegetable oil. The production bi-products, such as linseed or sunflower seed cakes is a valuable and organic fodder for pigs, cattle and other livestock.

Pea Processing Equipment: The project procured Pea Processing Equipment for the Agricultural Producer Groups that allows peeling the harvested field crop off the pod and having clean product for selling. This equipment is essential for producer groups operations and will help to ensure increase in sales. In April the vendor completed the delivery and installation of two Pea Cleaning Machines to Varser and Mets Parni cooperatives. The one in Varser community will serve the cooperatives of Gegharquniq and Kotayq regions. The one in Mets Parni community will serve the cooperatives of Shirak and Lori regions. The pea cleaners remove the impurities (straws, chaff, weed seeds, soil, rubbish, and other non-pea materials) from

¹ Alternative crops

the harvested pea, as well as sorting. Pea cleaning improves the ability of the crop to be safely stored, sorts the crop and reduces unwanted materials for processing.

Activity 3.5: Improve access to better quality production inputs & services

Agricultural inputs and agro-machinery were distributed to the members of the high-value field crops, non-traditional vegetable and fruit/berry producer groups.

High-value field crop seeds: Lentil, pea, chickpea and linen were sown again using the seeds from the previous year harvest (the harvest from elite seeds distributed by UNDP in 2016 can still be effectively sown 4-5 years). In total, 464 ha of land was cultivated with a total 550 tons of high-value crop yield.

Non-traditional vegetables: 7 types of high-value non-traditional vegetables were planed on 28,000 sq. m of land.

Berry saplings: Total area of the berry field is 9,600 sq. m. was established with installation of anti-hail nets and drip irrigation systems, provision of high-productivity berry saplings (raspberry, dewberry, strawberry).

Reserving seeds for next year: The 32 cooperatives involved in high-value field crop cultivation confirmed that they reserved the part of this year harvest as seeds for next year. All of them completed the storage of next year seeds for lentil, pea, chickpea, linseed and buckwheat. The farmers are very satisfied with the quality of provided seeds including high productivity of seeds, sprouting capacity and suitability for growing on low-irrigated areas.

Oil Extraction and Oil Bottling Equipment: The project procured Oil Extraction and Oil Bottling Equipment for the Agricultural Producer Groups. This equipment allows increasing the diversification of the products based on linseed.

Pea Processing Equipment: The project procured Pea Processing Equipment for the Agricultural Producer Groups that allows peeling the harvested field crop off the pod and having clean product for selling. This equipment is essential for producer groups operations and will help to ensure increase in sales.

In April the vendor completed the deli

Technical support in the introduction and use of inputs: The Project provided technical support in the introduction and use of unfamiliar inputs and equipment such as anti-hail nets and drip irrigation.

Activity 3.6: Improve harvesting techniques, post-harvest, and storage

Both buckwheat factories have been upgraded with UNDP support for full functionality. In particular, natural gas supply pipeline installed in Bavra, gas burners and pressure control units were installed in both factories. As of the end of October the two factories have fully functional gas burning devices that heat up the roasting ovens and in consequence shorten the period for buckwheat dehulling process, rendering the buckwheat hulling process more efficient and less costly in terms of fuel consumption.

Activity 3.7: Build capacities to source quality products and effective supplier networks

UNDP commissioned a Local Consultant on Business Management from EV Consulting company to conduct a business diagnostic review and update business plans for buckwheat production and processing factories in Bavra and Tsovagyugh communities. By the end of October 2018 the consultant will conducted the following:

- Assessed the performance of the business comparing the actual outcomes against the plan and set targets;
- Diagnosed the current situation by assessing internal and external factors and revealed the major gaps which resulted the underperformance and its root causes, in particular:
 - ✓ market performance (competition, prices, consumption);
 - ✓ capacities and capabilities of the company to produce competitive products;
 - ✓ productivity;
 - ✓ financing;
 - ✓ production cost for buckwheat products (roasted, green and flour) based on natural gas as main production fuel;
 - ✓ taxation;
 - ✓ sales channels.
- Analyzed the modus operandi of the agriculture cooperatives engaged in the project and identify its impact on the situation;
- Conducted a comparative analysis of the competitiveness of the local produce (productivity, quality of the products, etc.).

Based on the results of the business diagnostics the Consultant prepare prioritized recommendations for closing identified gaps to improve business operation and performance of Bavra and Tsovagugh buckwheat production and processing agriculture cooperatives (cooperative of cooperatives) related to:

1. Management of the entities;
2. Organizational set up of the business model;
3. Production improvement;
4. Marketing and sales;
5. Estimate of financial results.

Activity 3.8: Support traders, transporters and marketers to better service targeted value chains

* **Harvest Festival 2018:** Twenty two cooperatives were supported to participated in the Harvest Festival held on 15 September 2018. The cooperatives, which took part in the event, presented and sold their products.

* **Food product expo:** Fourteen value-added products and eight primary cooperatives participated in the Armenian Expo 2018 in Yerevan on 7-9 September 2018. The expo enabled the groups to build their network of potential buyers, as well as making sales during the three days of the expo.

* **Healthy Lifestyle 2018:** The project supported two buckwheat cooperatives to participate in Healthy Lifestyle expo held in Yerevan on 14-15 September 2018.

Activity 3.9: Develop innovative financing facilities and services, and improve access to capital

A social impact bond (SIB) is a fairly new result-based financial instrument of impact investing, where outcome payers agree to pay and reward investors only if agreed-upon outcomes are achieved. The idea is to engage private capital in funding social/environmental/development projects with a possibility for a financial return. The public sector institutions agree that if the bond succeeds in achieving the agreed outcomes, the investors will get their capital back and a possible financial return. The financial return is dependent on the degree to which outcomes improve the initial situation.

The current agricultural education system is not fully responding to the current needs of Armenian farmers, which results in limited information, lack of modern skills and knowledge and missed opportunities in developing and expanding their production. To help the dairy farmers to increase their productivity and quality of the milk, UNDP commissioned international and local experts to develop an innovative farmers' education approach by tackling the knowledge gaps, enhancing the availability of financing and framework of contractual farming. The proposed scheme will utilize social impact based new financial instrument, which focuses on creating measurable results and transfers the financial risk of implementation to private sector.

As part of this activity, UNDP did the following:

- ✓ Designed the general structure of the SIB and integrated financial model;
- ✓ Identified the main stakeholders and beneficiaries (targeted population and geographical location);
- ✓ Defined expected outcomes and outcome metrics;
- ✓ Provided research to identify baseline criteria (quantitative and qualitative) acceptable by all stakeholders;
- ✓ Conducted legal due diligence to get recommendations for outcome payments, investments and other issues;
- ✓ Formulated preliminary intervention strategy with timeline.

Other activities (Value chain related, Results Management, Communication)

Activity 1: Monitoring

Ongoing monitoring was conducted through field visits, data collection and analysis. Regular monitoring visits were conducted to the producers as planned.

In September 2018 UNDP's team visited Tolors, Vaghatin, Darpas and Angeghakot villages of Syunik Marz. The purpose of the visit to Tolors, Vaghatin, Darpas and Angeghakot villages of Syunik Marz was monitoring of the activities of the beneficiary groups, who had received UNDP's support. In particular in 2017 the visited

4 women-led producer groups have received small greenhouses (135 sq. m.), with drip-irrigation systems within the ENPARD project. The main objective of the donated equipment was to empower the groups to produce seedlings of non-traditional vegetables (broccoli, rucola, asparagus, etc.). All the donated equipment was in satisfactory condition, properly maintained and used.

The team also visited Tsovaghyugh buckwheat factory.

In October 2018 UNDP's team visited Mets Parni (Lori marz) and Mets Mantash (Shirak marz), as well as Tatul and Nor Artik communities of Aragatsotn marz. The purpose of the visit was monitoring of the activities of the beneficiary groups, who had received UNDP's support.

Activity 1: Communication

The project organized workshops for cooperatives to discuss with consult them on pea cleaning, oil processing and bottling techniques, as well as to agree the rules and schedules of use of the grain combine harvester.

IV. GENDER MAINSTREAMING RESULTS

A UNIDO national consultant developed a gender assessment based on interviews and research undertaken with producer group participants and project drop outs. Based on the assessment, she developed a gender mainstreaming strategy recommending project approaches and additional activities, and undertook a training session for staff in 2016.

Gender/youth mainstreaming trainings (2017): Based on the gender mainstreaming recommendations, the Project organised Gender and Youth Mainstreaming Trainings for the beneficiary groups to further mainstream gender equality and women/youth empowerment into the project implementation. The training module addressed the administrative, financial, community, educational and other barriers for women, men and youth involved in the agriculture and encouraged their leadership/active role in the cooperatives. The Training was conducted for all beneficiary groups of the project from Gegharkunik, Kotayk, Lori, Shirak, Aragatsotn, Syunik, Vayots Dzor and Ararat regions. General trainings were delivered to producer groups by UNDP's subcontractor.

V. RISKS LOG

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
1	Production risks: Attacks from pests, diseases, natural disasters and management failures may cause drops in primary	1-Jan-15	Environmental Financial Operational Organizational Political Regulatory Strategic	Low level of primary production. P = 3 I = 3	<ul style="list-style-type: none"> • monitor the status of production and quality of product • experts from national research and private sector provide production recommendations and solutions to production failure 	Project Coordinator		30-Oct-18	Reducing

	production.		Other		and pest infestation • producers will apply disaster risk reduction tool developed by the project				
2	Producer risks: Producers fail to see producer group alternatives as providing sufficient incentive for participation	1-Jan-15	Environmental Financial <u>Operational</u> Organizational Political Regulatory Strategic Other	P = 1 I = 3	• careful choice of producer groups • continuous demonstration of advantages of producer groups	Project Coordinator		30-Oct-18	Reducing
3	Capital Risk: Insufficient capital available to undertake the value addition processes required to meet output objectives. Financial institutions, donors, and other potential investment sources resistant to expanded exposure in the food and agriculture sector.	1-Jan-15	Environmental Financial <u>Operational</u> Organizational Political Regulatory Strategic Other	P = 1 I = 3	• careful financial planning in inception phase • study of the financial market and existing financing schemes • adequate reporting of results achieved in the selected value chains / marzes • continued demonstration of high potential of the food and agriculture sector	Project Coordinator		30-Oct-18	Unchanged

VI. LESSONS LEARNED

Document lessons learned (2017): a legislation expert contracted by UNDP provided a report on improving regulation of cooperatives in Armenia based on field and other research:

- Documenting lessons learned from the past and on-going activities related to the establishment and operation of producer groups/cooperatives;
- Compiling information as to the types, numbers, problems and needs of existing producer groups/cooperatives, and challenges foreseen in the future the development of such groups;
- Reporting on the international experience of producer groups/cooperative development, and identifying effective mechanisms, techniques and approaches that could be localized and adopted in Armenia; and,
- Providing recommendations for the further development of legislation on producer groups/cooperatives in Armenia.

VII. EVALUATIONS

2 EU ROM missions were conducted during project implementation and all the recommendations

were considered.

VIII. INTERNATIONAL, BILATERAL COLLABORATION WITH OTHER COUNTRIES

n/a

IX. PRODOC CHANGES, HORIZON SCANNING

n/a

X. FINANCIAL IMPLEMENTATION

Funding source	2018 Approved Budget	Expenditure as of 19 November 2018	Delivery Rate as of 19 November 2018
UNIDO/European Union (EU):	USD 209,608	USD 178,313	85%
UNIDO/Austrian Development Agency (ADA)	USD 192,781	USD 191,615	99%
Total	USD 402,389	USD 369,928	92%

X. FUTURE WORK PLAN

The project ended on the 28th November 2018.

XI Results framework for 2015-2018

Indicators	Targets	Results
1. Number of new business-oriented cooperatives registered	1. 20	1.40
2. Number of farmer groups developed new skills	2. 80	2. 84
3. Number of pilot Disaster Risk Reduction measures (anti-hail nets, drip irrigation) implemented	3. 10/5	3. 10/10
4. Number of jobs created	4. 40	4. 50
5. Buckwheat factories operational	5. Finalization of the upgrade of buckwheat factory	5. Both buckwheat factories in Bavra and Tsovaghyugh were upgraded and operational

XI. ANNUAL VALIDATION OF RESULTS (FIELD VISIT) AND QUALITY ASSURANCE

Field Visit Report

Date of visit: November 19, 2018

Subject and venue of visit: Project #00081906-00091028,
[Project number(s) and title(s), venue visited]

Purpose of the field visit:

Outcomes	Update on outcomes	Outputs	Update on outputs	Reasons if progress below target	Update on partnership strategies	Recommendations and proposed action
UNDAF outcome: 1. By 2020, Competitiveness is improved and population, including vulnerable groups, have greater access to sustainable economic opportunities.	As a result of the Project, the primary producers and members of the cooperatives established got increased access to various sustainable economic activities that significantly improved their livelihood. The Project took special attention to women, youth and other vulnerable layers of the local society for targeted assistance.	Output 1.1 Local capacities strengthened to develop and implement innovative and diversified income-generating practices that are sustainable and employment and livelihood intensive targeting most vulnerable groups	All the set outputs for the extension period were accomplished and were possible due to the savings UNDP had during project implementation which does not affect delivery of outputs.	N/A	The project closely worked with all relevant partners in the field	

PROJECT PERFORMANCE—IMPLEMENTATION ISSUES

[If the person conducting the field visit observes problems that are generic and not related to any specific output, or that apply to all of them, he or she should address the 'top three' such challenges.]
List the main challenges experienced during implementation and propose a way forward.

PROGRESS TOWARDS RESULTS

The project exceeded its targets and results as all were accomplished by 2017, and the project managed to save additional funds for the implementation of additional works beyond its targets.
For 2018 the results are:

- 1) SIB model designed for dairy production in Shirak Marz as example for Social Impact in Agriculture
- 2) buckwheat factory Upgraded to ensure full functionality (including burners, gas connection and auger conveyor)
- 3) Content of buckwheat in laboratory test analysed to proof its nutritional value in comparison to imported buckwheat and other foods thus strengthening a marketing campaign for homegrown buckwheat
- 4) user manual developed with business models and recommended implementation steps for buckwheat production and processing including information on market prices, costs of production and levels of competitiveness
- 5) levels of soil fertility analysed in farmers fields to document positive environmental effects of buckwheat production and establish levels of soil-fertility improvement
- 6) participation of producer groups at 3 national expos and fairs enabling the groups to link to buyers and boost sales organized
- 7) continued support provided to established primary producer groups in the area of high value field crops and non traditional vegetables and berries to ensure production, profitability and sales of products.
- 8) closing event in Yerevan organized

LESSONS LEARNED

Major lessons learned was that initial set up of a buckwheat factory, mainly specifications for the equipment did not consider the whole cycle of the value chain as well as cost benefit analysis of operation. Therefore the project procured equipment was not found to be efficient enough and additional works were done to improve the situation- gasification of both factories which contributed to the decrease of costs of the product.

Participants in the field visit:

Prepared by (Project Coordinator):



Davit Mirzoyan, Project Manager

Approved by: _Anna Gyurjyan, Programme Officer_____

