Assessment on the needs of smallholder farmers and decision-makers

May 2024

Yerevan-Armenia

Conducted by **Armenian Women for Health and Healthy Environment (AWHHE)** in the framework of the project **UDF-22-958-ARM** "**Promoting Democratic Participation and Climate-Smart Agriculture in Armenia",** funded by **The United Nations Democracy Fund (UNDEF)**.

Cover Picture by AWHHE:
Woman farmer from Nor Gyugh settlement of Kotayk province answers assessment questions

Introduction

This assessment on the needs of smallholder farmers and decision-makers was conducted by the NGO Armenian Women for Health and Healthy Environment (AWHHE) in the framework of the project " Promoting Democratic Participation and Climate-Smart Agriculture in Armenia", funded by The United Nations Democracy Fund (UNDEF).

This project aims to promote democratic participation in agriculture in Armenia's Kotayk and Lori provinces through empowering local small holder farmers, especially women, with innovative knowledge and skills for reducing social and economic vulnerabilities due to climate change (as a contribution to SDG targets 2.3 and 2.4).

The assessment will help understand the following:

- The main socio-economic challenges in the provinces, such as the youth unemployment, migration, etc.
- The smart and Innovative Communication Technologies (ICTs) that are already being implemented in target provinces, and can be shared among smallholder farmers
- The prospects of the application of other ICTs to address the agricultural needs of the rural communities, in order to contribute to the poverty alleviation, improve the effectiveness and efficiency of the agricultural activities

Through training and facilitation, it would empower women farmers to take advantage of existing opportunities to influence decision-making, obtain training in climate-smart agriculture and to boost their farms' productivity, sustainability and revenues.

The needs assessment with a pre-developed questionnaire was conducted in February-May 2024. Assessment methodology was developed and needs of 180 farmers were assessed in 24 target settlements of Lori and Kotayk provinces of Armenia (90 farmers in 12 settlements of each province), as well as among decision-makers at community and province level. The settlements were selected in consultation with the Governors' offices of Lori and Kotayk provinces focusing on those communities which are mostly affected by climate change.

Scope and purpose

The purpose of the assessment was to collect baseline data on the understanding of smallholder farmers (at least 50% women) in Kotayk and Lori provinces on their role in decision-making on innovative climate smart agriculture. The assessment purpose was also to identify the needs of smallholder farmers for adopting the climate smart agriculture approaches.

The collected information will be used for development and implementation of project components such as organization of farmer field schools, communication campaign, empowerment of women initiative groups, etc.

Key Findings in Lori and Kotayk Provinces

- Women farmers' participation in the assessment is 73% in Lori province and 71% in Kotayk province; and the participation of women in management is 42,5% in Lori and 52,5% in Kotayk; the age of respondents was from 18 to 55.
- Smallholder farmers in both provinces are faced with multiple climate change weather disasters, including floods, frost, showers, hail, drought. According to answers of target respondents the climate change weather disasters significantly affect agricultural productivity, including total crop failure and livestock losses. Loss of harvest due to climate related factors was noted by 76,6% of farmers in Lori and 36,6% in Kotayk. Reduction in yield was noted by 43,6% of farmers in Lori and 45,2% in Kotayk.
- The analysis of the qualitative data gathered both from the management and the farmers in both provinces shows that the significant changes in climate have affected the agricultural sector by decreasing the productivity of crops and agricultural products; land cultivation has become more challenging for the farmers due to the decline in precipitation, dry weather and lack of water resources.
- The farmer respondents noted the climate change effects on the nature of cultivated agriculture. products: the climate conditions have become more favourable for crops that were not common there. For example, crops, more adapted to warmer weather conditions, such as grapes, peach, apricot, blackberry in Kotayk, and bean and walnut in Lori.
- The main problem observed by all respondents representing the administration from both provinces include irrigation systems and water availability issues, particularly the outworn irrigation systems and significant water loss as a result of it. Among the farmer respondents, 68,1% in Lori and 72% in Kotayk noted the scarcity of irrigation water during the summer season.
- The farmer respondents in both provinces noted low application of innovative/climate-smart approaches in agriculture in their communities: 16% of farmers in Lori and 18,3% of farmers in Kotayk use a form of such approaches (e.g. mulching, drip irrigation, etc).
- The extensive use of nitrate fertilizers (saltpeter) as a contributor of desertification and erosion was noted by 60,6% of farmers in Lori and 57% in Kotayk.
- The use of pesticides is also extensive: 76,6% of farmers in Lori and 72% in Kotayk.

- The level of poverty of farmers (living on less than 100000 AMD = USD 250) was noted by 81% of respondents in Lori and 58,1% in Kotayk. The minimal basket in Armenia for the first quarter of 2021 was AMD 66949[1]. This means the farmers have very limited resources for investing.

Photos by AWHHE: meetings in Lori with mayor of Jrashen (left) and representatives of community administration of Lernantsk (right)

province

As a result of the survey conducted among the administrative heads of the settlements and the farmers, a number of socio-economic, health, financial and environmental issues were identified, which are interconnected.

Socio-economic problems

Loss of job opportunities and income. An 80% loss of agricultural crops due to drought, hail and other natural disasters reduces job and income opportunities, forcing people to leave their homes and seek work in cities. Hail and early frost damaged crops in Saramej, Jrashen, Arevashogh, Shenavan, Lernavan, Lernantsq, Blagodarnoye, Katnarat, Shnogh and Saralanj settlements.

Transportation difficulties. The lack of inter-village public transportation prevents 80% of the villagers from transporting and selling their goods, which sharply lowers their income and increases their living difficulties (Saramej, Arevashogh, Lernavan, Lernantsq, Blagodarnoye, Katnarat, Shamlukh, Mets Parni, Saralanj).

Poverty of the population. Financial losses, reduced harvests and other factors contribute to high levels of poverty.

Health problems

Deterioration of sanitary and hygienic conditions. The insufficient amount of drinking water in Saramej, Jrashen, Arevashogh, Lernantsq, Shamlukh and Shnogh can cause intestinal diseases and worsen sanitary and hygienic conditions.

Use of wood for heating. Due to the partial lack of gasification, the residents of Shamlukh, Lernavan, Jrashen, Katnarat and Lernantsq are forced to get wood from the forest.,

[1] World Food Programme, Market Price Monitoring Bulletin Issue No. 15 May 2023
https://reliefweb.int/report/armenia/armenia-wfp-vam-market-price-monitoring-bulletin-issue-no-15-may-2023

Financial problems

Crop loss and compensation. Natural disasters, including mudslides, droughts and storms, have caused extensive damage to agricultural crops, and compensations are often insufficient for farmers to cover losses.

High costs. The prices of fodder and grain crops are high, which causes difficulties for the farmers of Saramej, Arevashogh, Lernavan, Lernantsq, Blagodarnoye, Katnarat, Shamlukh and Saralanj settlements in the development of livestock and agriculture.

Environmental problems

Deforestation and environmental consequences. Deforestation for firewood and lack of forest around Arevashogh, Shnogh, Mets Parni and Saralanj lead to ecosystem damage, biodiversity loss and climate change.

Land degradation. Inadequate soil fertilization and lack of agrotechnical methods lead to soil degradation and loss of fertility, which further reduces yields. A similar trend is observed in Saramej, Lernavan, Lernantsq, Katnarat, Shamlukh, Mets Parni and Saralanj.

The described problems show that rural settlements are facing serious challenges that require a comprehensive and combined approach. The restoration of agriculture, the improvement of health conditions, the development of transportation and water supply systems, as well as the solution of environmental problems are important to ensure stable and healthy communities. Increasing financial support, as well as the introduction of innovative technologies, can contribute to overcoming these challenges.

Conclusion, Kotayk province

As a result of the surveys conducted among the administrative leaders and farmers of the target settlements, a number of socio-economic, health, financial and environmental issues were identified, which are interconnected.

Socio-economic problems: Inadequacy of water resources and low yield of agricultural crops lead to 51% reduction of jobs in agriculture in the settlement (Geghadir, Mayakovsky, Getamej, Jraber, Dzoraghbyur). Farmers are forced to look for work in nearby settlements or in the capital, or they go to work abroad. Some of the farmers, unable to take other steps, go bankrupt and join the ranks of the poor.
Health problems: The insufficient amount of clean drinking water does not meet the requirements of personal hygiene, sanitary hygiene of the house and causes the spread of intestinal diseases.

Food security issues: The lack or insufficiency of irrigation water, the insufficient amount of clean water used for irrigation purposes leads to a decrease in yield, which leads to a reduction in the demand of residents for agricultural products, as well as a reduction in food security in the country (settlement).

Financial problems: Farmers take loans in early spring to purchase seeds. Unfortunately, the drastic changes in the climate - frost, hail, drought and lack of irrigation water - do not ensure high yields, which leads to a decrease in income.

In the conditions of weather anomalies, about 32% of the farmers report overspending. Costs increase due to acquisition of irrigation water pipeline and pump, electricity consumption, increased pest control measures, fertilization of barren land. Consequently, their profit decrease.

Income reduction is also due to market competition between local agricultural products and cheap imported goods, in which 70% of farmers are forced to sell agricultural products at a price below cost.

Environmental problems: The absence of forests leads to soil erosion, insufficient water resources and exacerbates the impact of climate change on the agricultural sector.

In order to mitigate the impact of climate change, it is necessary to apply innovative agricultural methods, among which the introduction of intensive gardens is available in Garni and Hatsavan settlements, and the use of 5th generation greenhouses for growing vegetable crops is already available in the Nor Gyugh, Fantan and Dzoraghbyur settlements.

To some extent, they provide residents with new jobs, income and reduce emigration.

Photo by AWHHE: assessment questionnaire, Shamlukh settlement, Lori province