

FOOD AND AGRICULTURE

Key to achieving the 2030 Agenda for Sustainable Development in Armenia



INTRODUCTION

On 25 September 2015, the 193 Member States of the United Nations adopted the 2030 Agenda for Sustainable Development, underpinned by 17 Sustainable Development Goals (SDGs) with 169 targets and 232 indicators to guide the actions of governments, international agencies, civil society organizations and other institutions to achieve sustainable development by 2030.

The 2030 Agenda sets forth a transformational and ambitious plan to guide the global approach to sustainable development through

the united efforts of all countries and stakeholders, with no one left behind. The 17 SDGs are universal, integrated and indivisible, capturing all three dimensions of sustainable development: social development, sustained and inclusive economic growth, and environmental protection.

The 2030 Agenda aims to tackle the complex challenges facing the planet today – ending poverty, hunger and malnutrition and responding to climate change. In this context, sustainable food and agriculture are critically important for the achievement of the SDGs in that they tackle the root causes of hunger and poverty, enabling an inclusive society that leaves no one

behind – particularly vulnerable and disadvantaged women and men in rural communities – and promoting the sustainable management of natural resources.

The SDGs offer the right framework to tackle the economic, social and environmental challenges related to food and agricultural systems in Europe and Central Asia.

The 2030 Agenda for Sustainable Development includes:

- 17 goals
- 169 targets
- 232 indicators

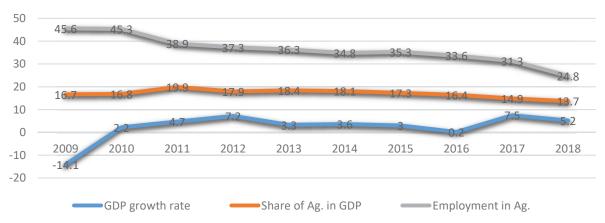
FOOD AND AGRICULTURE IN ARMENIA

Agriculture is one of the most important economic sectors of Armenia. It is the main source of economic activity in rural areas and is a significant contributor to the gross domestic product.

Agriculture produces 13.7 percent of the gross domestic product (GDP) (as of 2018) and employs about 24.8 percent of the working population, of whom nearly 52.1

percent are female farmers. Women are over-represented in seasonal and precarious employment, and 82.1 percent of all women working in agriculture do so informally.

Agriculture growth rate in GDP and employment in agriculture (%)



Source: Statistical Committee of the Republic of Armenia (ARMSTAT)

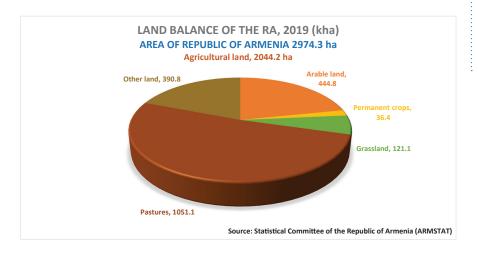
In total, there is 2 044 200 ha of agricultural land in Armenia. This comprises 68.8 percent of the country's total territory, with about 0.15 ha of arable land per capita. As of 2016, 21.3 percent of the agricultural land belonged to family farms. At the same time, the level

of uncultivated agricultural lands is worrisome.

The agricultural lands are privatized, and currently about 346 000 private family farms own 513 000 ha of agricultural lands, in total, and produce more than 96.8 percent

of the total agricultural output (in 2016). Smallholders constitute the vast majority in the country, representing around 95 percent of all farms, and have an average size of 1.4 ha, usually fragmented into three or four parcels. The smallest sizes of agricultural land are in Ararat province (Ararat valley), at 0.72 ha, and Tavush province, at 0.86 ha. Smallholders produce most of the gross agricultural product, at around 97 percent.

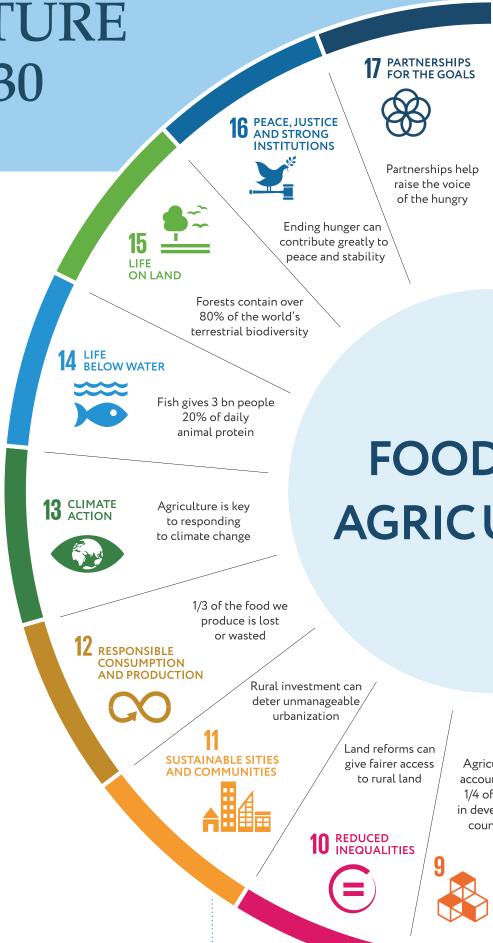
The territory of Armenia is characterized by high seismic activity and intensive exogenous processes, which contribute to the occurrence of landslides and erosion. Another significant problem in Armenia is salinization.



FOOD AND AGRICULTURE IN THE 2030 AGENDA

THE 17 SUSTAINABLE DEVELOPMENT GOALS

- Goal End poverty in all its forms everywhere
- Goal 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal 3 Ensure healthy lives and promote well-being for all at all ages
- Goal 4 Ensure inclusive and quality education for all and promote lifelong learning
- Goal 5 Achieve gender equality and empower all women and girls
- Goal 6 Ensure access to water and sanitation for all
- Goal 7 Ensure access to affordable, reliable, sustainable and modern energy
- Goal Promote inclusive and sustainable economic growth, employment and decent work for all





- Goal Build resilient infrastructure,
 promote sustainable
 industrialization and foster
 innovation
- Goal 10 Reduce inequality within and among countries
- Goal 111 Make cities inclusive, safe, resilient and sustainable
- Goal 12 Ensure sustainable consumption and production patterns
- Goal 13 Take urgent action to combat climate change and its impacts
- Goal 14 Conserve and sustainably
 use the oceans, seas and
 marine resources
- Goal 15 Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss
- Goal 16 Promote just, peaceful and inclusive societies
- Goal 17 Revitalize the global partnership for sustainable development



It is expected that the problems related to land quality, water availability and the occurrence of natural disasters will continue to worsen because of the negative impacts of climate change.

The average altitude of the country is 1 800 meters above sea level, with 76.5 percent of the territory located at between 1 000 meters and 2 500 meters above sea level. Thus, the majority of lands in Armenia are mountainous and highmountainous zones; this determines the peculiarities of agricultural production and food availability. The Ararat valley and the plain and subtropical zones have the most favourable conditions for plant growing, while the mountainous areas are more appropriate for animal husbandry. The agriculture of Armenia is focused mainly on plant growing, which makes up 55.4 percent of the total agricultural output. The natural and climatic conditions of Armenia determine the high vulnerability of agriculture to various forms of natural disasters and stressors. Almost all regions of the country are vulnerable to hydrometeorological hazards, partly related to climate change, including

frost, drought, hail and seasonal floods. These cause great damage to agricultural production. The average annual loss in agricultural output related to hydrometeorological hazards was estimated at USD 72 million in 2016.

According to FAO's 2019 report The State of Food Security and Nutrition in The World, Armenia has registered a significant decrease in the prevalence of undernourishment (PoU), which is a measurement of hunger and food insecurity from 2004 to 2017. The statistics shows that the PoU in Armenia declined from 7.8 percent in 2004-2006 to 4.3 percent in 2015–2017. The national statistics showed that 16 percent of households were classified as food insecure in 2015. Food insecurity is accompanied with double burden of child malnutrition and micronutrient deficiencies; in 2015, 9 percent of children younger than five-years-old were stunted and 14 percent were overweight.

Food security goes hand in hand with poverty. Poverty is a serious concern, as almost one-third of the total population – 29.8 percent – are poor (2016). In many rural

communities, problems that still need to be addressed include the availability of preschool facilities, the distances between homes and primary schools, access to sewage systems, quality of roads, and availability of intercommunity public transport.

FAO'S SUPPORT ON SDGS IN ARMENIA

As a United Nations specialized agency, FAO has extensive experience in supporting sustainable development in the context of food and agriculture, providing norms, standards and data for the implementation, monitoring and reporting of the SDGs.

FAO is also the custodian
United Nations agency for
21 indicators, under
SDG 2 (zero hunger)
SDG 5 (gender equality)
SDG 6 (clean water and sanitation)
SDG 12 (responsible consumption and production)
SDG 14 (life below water) and
SDG 15 (life on land)

As a custodian agency, FAO is responsible for collecting data from national sources, validating and harmonizing those data, estimating regional and global aggregates, and making them available for international reporting. FAO is also responsible for leading the methodological development of the 21 indicators and for providing coordinated technical assistance to countries with the objective of enabling them to produce their own data in the long run.



FAO is supporting countries in the achievement of multiple SDG targets, as food and agriculture encompasses all the SDGs, through the Country Programming Frameworks (CPFs), a tool for country-level strategic prioritization.

In Armenia, the Government and FAO, through a participatory multi-stakeholder approach, agreed to implement the CPF focusing on three priority areas.

PRIORITY 1: SUSTAINABLE USE OF NATURAL RESOURCES, DISASTER RISK REDUCTION AND MANAGEMENT

PRIORITY 2: ANIMAL HEALTH, PLANT PROTECTION AND FOOD SAFETY

PRIORITY 3: FOOD AND NUTRITION SECURITY AND POVERTY REDUCTION

The three priority areas will increase the competitiveness of farmers, foresters and fisherfolk and improve rural livelihood, directly supporting the achievement of, particularly, SDG 2 (zero hunger), 13 (climate action) and 15 (life on land). These areas also address technical, social and economic aspects, recognizing the

needs of women and men at different stages of life and the needs of the most disadvantaged, in line with the 2030 Agenda's principle of leaving no one behind.

The three identified areas address government priority areas as reflected in key national documents, with an emphasis on developing agriculture, fisheries and forestry and enhancing the capacities of smallholders and family farmers.

Besides the technical support for SDG implementation, FAO also has assisted Armenia in the identification and monitoring of the SDG national targets and indicators during the SDG nationalization process, providing advice on the alignment of the sectoral policy framework with the SDGs, raising awareness on the key role of food and agriculture for the achievement of the 2030 Agenda, recommending critical actions to be undertaken for the implementation and monitoring of relevant SDGs, and providing methodological support on the 21 SDG indicators under FAO custodianship.

Agriculture is one of the key sectors defining the sustainable development of Armenia. The Ministry of Economy of the Republic of Armenia is leading the implementation and monitoring of the SDGs related to food and agriculture, together with the **Statistical Committee** and other relevant institutions.

LIST OF SDG INDICATORS UNDER FAO CUSTODIANSHIP

INDICATOR	CUSTODIAN/ PARTNERS	TIER*
2.1.1 PREVALENCE OF UNDERNOURISHMENT	FAO	1
2.1.2 PREVALENCE OF MODERATE OR SEVERE FOOD INSECURITY IN THE POPULATION, BASED ON THE FOOD INSECURITY EXPERIENCE SCALE (FIES)	FAO	II
2.3.1 VOLUME OF PRODUCTION PER LABOUR UNIT BY CLASSES OF FARMING/PASTORAL/FORESTRY ENTERPRISE SIZE	FAO	II
2.3.2 AVERAGE INCOME OF SMALL-SCALE FOOD PRODUCERS, BY SEX AND INDIGENOUS STATUS	FAO, WORLD BANK	II
2.4.1 PROPORTION OF AGRICULTURAL AREA UNDER PRODUCTIVE AND SUSTAINABLE AGRICULTURE	FAO UNEP	II
2.5.1 NUMBER OF PLANT AND ANIMAL GENETIC RESOURCES FOR FOOD AND AGRICULTURE SECURED IN MEDIUM- OR LONG-TERM CONSERVATION FACILITIES	FAO UNEP	ı
2.5.2 PROPORTION OF LOCAL BREEDS CLASSIFIED AS BEING AT RISK, NOT AT RISK OR AT UNKNOWN LEVEL OF RISK OF EXTINCTION	FAO UNEP	ı
2.A.1 THE AGRICULTURE ORIENTATION INDEX FOR GOVERNMENT EXPENDITURES	FAO IMF	I
2.C.1 INDICATOR OF FOOD PRICE ANOMALIES	FAO	II
5.A.1 (A) PERCENTAGE OF PEOPLE WITH OWNERSHIP OR SECURE RIGHTS OVER AGRICULTURAL LAND (OUT OF TOTAL AGRICULTURAL POPULATION), BY SEX; AND (B) SHARE OF WOMEN AMONG OWNERS OR RIGHTS-BEARERS OF AGRICULTURAL LAND, BY TYPE OF TENURE	FAO UN WOMEN, UNSD, UNEP, UN HABITAT, WORLD BANK	п
5.A.2 PERCENTAGE OF COUNTRIES WHERE THE LEGAL FRAMEWORK (INCLUDING CUSTOMARY LAW) GUARANTEES WOMEN'S EQUAL RIGHTS TO LAND OWNERSHIP AND/OR CONTROL	FAO WORLD BANK, UN WOMEN	II
6.4.1 CHANGE IN WATER USE EFFICIENCY OVER TIME	FAO UNEP, IUCN, UNSD, OECD, EUROSTAT	
6.4.2 LEVEL OF WATER STRESS: FRESHWATER WITHDRAWAL AS A PROPORTION OF AVAILABLE FRESHWATER RESOURCES	FAO UNEP, IUCN, UNSD, OECD, EUROSTAT	
12.3.1.A FOOD LOSS INDEX	FAO	Ш
14.4.1 PROPORTION OF FISH STOCKS WITHIN BIOLOGICALLY SUSTAINABLE LEVELS	FAO	1
14.6.1 PROGRESS BY COUNTRIES IN THE DEGREE OF IMPLEMENTATION OF INTERNATIONAL INSTRUMENTS AIMING TO COMBAT ILLEGAL, UNREPORTED AND UNREGULATED FISHING	FAO	II
14.7.1 SUSTAINABLE FISHERIES AS A PERCENTAGE OF GDP IN SMALL ISLAND DEVELOPING STATES, LEAST DEVELOPED COUNTRIES AND ALL COUNTRIES	FAO UNEP-WCMC	II
14.B.1 PROGRESS BY COUNTRIES IN THE DEGREE OF APPLICATION OF A LEGAL/REGULATORY/POLICY/INSTITUTIONAL FRAMEWORK WHICH RECOGNIZES AND PROTECTS ACCESS RIGHTS FOR SMALL-SCALE FISHERIES	FAO	II
15.1.1 FOREST AREA AS A PERCENTAGE OF TOTAL LAND AREA	FAO UNEP	I
15.2.1 PROGRESS TOWARDS SUSTAINABLE FOREST MANAGEMENT	FAO UNEP	I
15.4.2 MOUNTAIN GREEN COVER INDEX	FAO UNEP	1

¹ Tier I – those for which an established methodology exists and data are already widely available. Tier II – those for which a methodology has been established but for which data are not easily available. Tier classification updated in April 2019.

KEY MESSAGES

FOOD AND AGRICULTURE ARE KEY TO ACHIEVING THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

Sustainable food and agriculture are critically important for the achievement of the SDGs in that they tackle the root causes of malnutrition and poverty, enabling an inclusive society that leaves no one behind – particularly vulnerable and disadvantaged populations in rural communities – and promoting sustainable management of natural resources. The SDGs offer the right framework to tackle the economic, social and environmental challenges related to food and agricultural systems in Europe and Central Asia, including Armenia.

SDGS ARE UNIVERSAL GOALS: NEW WAYS OF WORKING TOGETHER ARE REQUIRED

The 2030 Agenda for Sustainable Development sets universal goals and targets that involve the entire world, developed and developing countries alike. They demand action by everyone and call for new ways of working together. Partnership, solidarity and a willingness to come together across geographies, sectors, professions and disciplines are the key enablers. The SDGs are a cross-sectoral and integrated issue that can only be achieved through a very strong cooperation and global partnerships among multiple actors – governments, United Nations agencies, cooperatives, civil society organizations, the private sector and other key actors – and across a broad range of areas.

FAO IS SUPPORTING ARMENIA IN ACHIEVING THE 2030 AGENDA

As a United Nations specialized agency, FAO is widely recognized for its technical capacity, global reach, monitoring expertise and experience in building partnerships and shaping policy as a neutral convener in support of the implementation of the 2030 Agenda.

EFFECTIVE SDG MONITORING IS A KEY REQUIREMENT TO ACHIEVE PROGRESS

FAO has long experience and strong comparative advantages in supporting the generation of data and statistics for evidence-based policymaking. FAO is the custodian UN agency for 21 of the 232 SDG indicators identified by the UN Statistical Commission, across SDG 2 (zero hunger), SDG 5 (gender equality), SDG 6 (clean water and sanitation), SDG 12 (responsible consumption and production), SDG 14 (life below water) and SDG 15 (life on land), and a partner agency for nine more. FAO's support in strengthening statistical capacities on SDG indicators can help countries, including Armenia, meet the new monitoring challenges. FAO statistics can be used by both governments to formulate and supervise policy and by farmers in their forward planning and economic decision-making.

FAO'S SUPPORT TO THE IMPLEMENTATION OF SDGs IN ARMENIA

Strengthening capacities on control of pesticide quality

2 3 6 12

Agricultural inputs play a key role in the production of safe food and feed. After the collapse of the centrally planned economy and the liberalization of the markets, new pesticide inputs were imported and used in Armenia from a wide range of countries, often without proper control on quality and authenticity. While the use of pesticides in pest, disease and weed control is important to ensure quality agricultural yields, it could also have adverse effects on human and animal health as well as on the environment. Ensuring the quality control of imported pesticides and an efficient pesticide residue surveillance monitoring system for the food produced is, therefore, essential. However, Armenia lacked the necessary technical capacities and equipment.

Through a Greece-funded project of USD 2 million titled "Support for pesticide quality control and residue monitoring in Armenia," FAO supported Armenia in establishing the first pesticide quality control laboratory, inaugurated in Yerevan in 2015, fully equipped to carry out pesticide quality control according to international standards. With the volume and variety of pesticides imported into Armenia increasing every year, the new laboratory enables Armenia to improve the quality of its agricultural products

and reduce the negative effects of pesticides on humans, animals and the environment. The laboratory staff is trained to analyse pesticide products, supporting the government in reducing the incidence of obsolete, low-quality, fraudulent or unauthorized pesticides on the Armenian market. The laboratory is unique in its kind and is the only one in the whole Caucasus region.

The project significantly contributes to the protection of public health and the reduction of risks associated with the use of pesticides - SDG target 3.9 (reduce the number of deaths and illnesses from hazardous chemicals), SDG target 6.3 (improve water quality by minimizing the release of hazardous chemicals and materials), SDG target 12.4 (achieve the environmentally sound management of chemicals and reduce their release to air, water and soil) and to the sustainable development of the agricultural sector through less hazardous agricultural inputs, leading to improved agricultural practices, safer food and a cleaner environment - SDG target 2.1 (end hunger and ensure access to safe, nutritious and sufficient food).

Support to the Ministry of Economy and the Statistical Committee of the Republic of Armenia in SDG implementation and monitoring

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Agriculture is one of the main pillars of the Armenian economy, and is considered one of the Government's priorities. The Ministry of Economy, which is responsible for economic policy development, is the responsible institution for implementing the SDGs related to food and agriculture and for identifying targets, aligning policy planning documents and-together with the Statistical Committee – monitoring progress in achieving SDG targets.

An FAO project to support the Ministry of Economy in the implementation and monitoring of the SDGs, started in 2017, aimed at increasing Armenia's political awareness and commitment to food security, nutrition and social protection. Project goals also included enhancing the technical capacities of the Ministry of Economy and other relevant state authorities on the implementation and monitoring of the SDGs.

A baseline study has been conducted to assess where the Ministry of Economy stands regarding the nationalization and implementation of the SDGs, with special attention to the targets prioritized by the ministry and the indicators under the custodianship of FAO.

Through the project, a module on the Food Insecurity Experience Scale (FIES) for the collection of SDG indicator 2.1.2 (prevalence of moderate or severe food insecurity in the population) was integrated into the Integrated Living Conditions Survey (ILCS), and capacity development activities were carried out on the 21 SDG indicators under FAO custodianship.

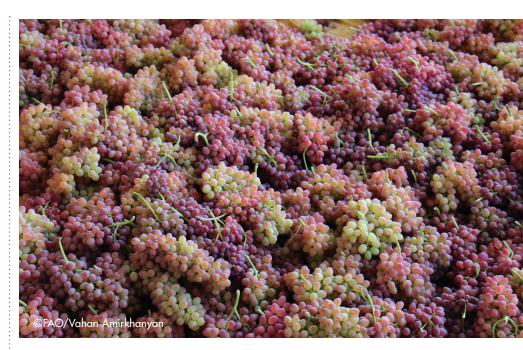
Technical assistance for the production of planting material resistant to grape phylloxera

2

Viticulture is one of Armenia's most recognizable and valuable national assets. The history of wine growing in Armenia dates back over 6 000 years. The range in altitude of the country and variety of soil and climatic conditions created a favourable setting for grape production. Today, more than 60 Armenian companies produce more than 400 varieties of wines. Ninety-five percent of all Armenian vineyards are held by small-scale farmers.

Currently, the sector is at a critical phase of its development. Until very recently, Armenia was considered immune to phylloxera because its climatic conditions were not suitable for the insect's biological cycle. However, presently, the Armenia viticulture sector appears to have become susceptible, perhaps due to changes in environmental (climatic) conditions that made the country more vulnerable to the spread of this pest.

In 2017, FAO provided technical support to the Government of Armenia in introducing new approaches and instruments for the sustainable development of agriculture in the country through establishing the basis for the sound management of the grape production sector with possible production and export growth. The FAO project has been addressing phylloxera (plant pest) issues and laying the groundwork for sustainable grape production in Armenia. Among the key achievements of the project are: the establishment of a vineyard collection, with around 300 varieties; the creation of a demonstration vineyard with modern technologies for two varieties for training purposes; the development of rootstock vineyards for the



production of phylloxera-resistant grape plantlets; the establishment of a workstation for grafting with modern equipment; staff training for grafting and planting materials production at all stages; elaboration on the national programme for phylloxera monitoring in the country; and recommendations for the establishment of a certification system for phylloxera-resistant planting materials.

The project significantly contributed to the development of the viticulture sector in Armenia. It also provided Armenian farmers and extension staff with training in the latest methods for the production of grape planting materials as well as modern vineyard management, including integrated pest management, use of drip irrigation, anti-hail netting, pruning and other techniques.

Overall, it contributed to SDG target 2.3 (Double the agricultural productivity and incomes of small-scale food producers) and SDG target 2.4 (Ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production and help maintain ecosystems).



Developing capacity for strengthening food security and nutrition

1 2

Despite considerable economic growth and improvements in household welfare in recent years, Armenia remains highly vulnerable to global economic shocks, volatility in international food and commodity prices and weather shocks that negatively affect countries' economies and the food security situation in general.

The FAO regional project "Developing capacity for strengthening food security and nutrition," funded by the Russian Federation, has been implemented in Armenia since 2017. The project aimed at addressing the linkages among social protection, nutrition and agricultural interventions across the food systems to ultimately contribute to the sustainable eradication of poverty and food insecurity.

In Armenia, the project established a "Cash+" model to strengthen food systems for nutrition-sensitive social protection, combining family benefits with the provision of cattle or poultry and raspberry seedlings, in addition

to training, to help vulnerable households make productive investments and, ultimately, improve their food security and nutrition. In total, the project covered 133 Cash+ beneficiary households in Marmashen community of Shirak province and Gyulagarak community of Lori province, providing training in nutrition, hygiene, food security and safety.

Moreover, the project supported the establishment of three greenhouses and two apple orchards in five schools of Ararat province to support school feeding, income generation

and agricultural training. Eradicating poverty, hunger and malnutrition while making agriculture and food systems sustainable requires an integrated approach. School feeding can, in fact, support local agriculture, strengthen and diversify local food systems, and help move people out of poverty by sourcing food for school meals from local smallholder farmers. Also, through specific interventions such as healthy school meals and food and nutrition education, pupils can improve their diets, develop healthier food practices and extend these to their families and communities.

Overall, the project has contributed to meeting SDG target 1.1 (eradicate extreme poverty for all people everywhere), SDG target 1.2 (reduce at least by half the proportion of men, women and children of all ages living in poverty), SDG target 2.1 (end hunger and ensure access to safe, nutritious and sufficient food), SDG target 2.2 (end all forms of malnutrition) and SDG target 2.3 (double the agricultural productivity and incomes of small-scale food producers).



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