



HAUT-COMMISSARIAT AUX DROITS DE L'HOMME • OFFICE OF THE HIGH COMMISSIONER FOR HUMAN RIGHTS

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Subject: Resolution 50/9 – Human Rights and Climate Change

The Office of the United Nations High Commissioner for Human Rights presents its compliments to all Permanent Missions to the United Nations Office at Geneva and has the honour to refer to Human Rights Council resolution 50/9 of 7 July 2022 entitled “Human Rights and Climate Change.” In the above-mentioned resolution (para.17), the Council has requested the Secretary-General to consult Member States and other relevant stakeholders in order to prepare and submit to its fifty-third session a report on the adverse impact of climate change on the full realization of the right to food. Consequently, the Office would be grateful to receive inputs for this report by e-mail to ohchr-registry@un.org with copy to therese.arnesen@un.org **no later than 9 December 2022.**

In formulating their inputs, the Office of the United Nations High Commissioner for Human Rights invites Member States to respond, as appropriate, to the attached questionnaire. For environmental considerations, electronic submissions not exceeding five pages are encouraged. Please submit your inputs in MS Word or compatible format in either of the official working languages of the United Nations (French or English). The inputs received will be posted on our website.

The Office of the United Nations High Commissioner for Human Rights avails itself of this opportunity to renew the assurances of its highest consideration to all Permanent Missions to the United Nations Office at Geneva.

Geneva, 4 October 2022



**Questionnaire in relation to Human Rights Council resolution 50/9 on
human rights and climate change**

1. **Please describe through concrete examples and stories how climate change is affecting the full realization of the right to adequate food in your country.**

Global and national food supply is decreasing in intensity and frequency due to increasing climate shocks. Therefore, yields decrease in production, fluctuations occur in the amount of harvest and increase rapidly. Production centers are shifting to areas sensitive to the effects of climate change/crisis. As a result of all these, there is a decrease in the production of all products, especially legumes.

According to a study conducted in 13 countries, including Turkey, 98% of farmers in Turkey state that climate change affects the financial sustainability of their farms. The research shows that climate change is at the top of the threats faced by farmers.

According to the research on Farmers and Digitalization commissioned by Vodafone Group in 13 countries, including Turkey, it is stated that problems such as climate change pose a great threat to the future of the agricultural sector.

According to the report of "Hunger-Poverty Survey, August 2022" by United Kamu-İş, the hunger limit of a family of 4 has reached 7 thousand 282 liras and the poverty line has reached 21 thousand 784 liras. According to Turhan Çakar, President of the Consumer Rights Association, more than 42 million consumers live below the hunger line and 38 million consumers live below the poverty line. However, in Turkey, the top 10 percent earn an average of 23 times more than the bottom 50 percent. The top 10 percent own 68 percent of the national wealth, while the bottom 50 percent own only 4 percent.

In a report published by a global insurance company in June 2022, it was stated that the risk of social conflict in 11 countries is high in the coming years with the large increase in food prices. One of these countries is Turkey. The report warned that the rapid rise in food prices could reduce access to resources and lead to the fall of some governments, as in the uprisings in Arab countries in the early 2010s.

In 2010, the United Nations declared that "climate change is inextricably linked to poverty and hunger". The UN has stated that 75 percent of the rural poor rely on natural resources such as forests, lakes and oceans for their livelihoods. Between 2030 and 2050, climate change is expected to cause approximately 250,000 extra deaths per year. The World Health Organization states that this

will only be due to malnutrition, malaria, diarrhea and heat stress. Families who have been chronically struggling with poverty for generations are more affected by crises with the decrease and disappearance of resources.

The food crisis we are facing due to the climate crisis affects the poor the most. The climate crisis affects the poor by:

- Crops are drying up and families are destroying their livelihoods due to water shortages caused by the climate crisis.
- Children living in deep poverty and the most vulnerable are those most affected by climate change. As resources run out, children are taken from school and made to work. "Child marriage" is on the rise as we get poorer.

Hunger and poverty increase the crime rate.

- Pollution affects children most, exposure to chemicals in the womb and early childhood leads to premature infant death.
- Floods and droughts brought about by climate change make food production difficult and increase food prices. Diseases from malnutrition will multiply as food runs out and sources of clean water disappear.
- Malnutrition leads to reduced learning potential

Southeastern Anatolia region is the region where the biggest grain farmers of Turkey are located. Three Diyarbakır Yenişehir Chamber of Agriculture President Süleyman İskenderoğlu states that the wheat revenue in Diyarbakır will decrease from 1 million tons to 300 thousand tons. İskenderoğlu states that although the situation of irrigated lands is relatively better, the damage is around 80 percent in the province:

"Every year, over one million tons of wheat was produced, but this year even 300 thousand tons will not come. The state needs to protect the producers in this drought and immediately declare it a disaster area.

Saying that 80 percent of the 3 million hectares of agricultural area in Diyarbakır is waterless fields, President of Diyarbakır Chamber of Agricultural Engineers Samet Ucaman says that all the provinces of the region have been affected by this drought: "Since 1978, the rainfall in March has decreased by 14 percent. Various crops such as wheat, barley, lentils and cotton are grown in the region, but the drought added 70 percent of dry agriculture, and the land became barren. The peasants left the land alone. Even if precipitation falls after this stage, the product will not be saved. The farmer is living the bitter truth in the field, he is devastated. Since he could not save the capital he had tied to the field, he was in trouble to find alternative solutions. This drought will cost Turkey 10 times more.

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President of Şanlıurfa Chamber of Agricultural Engineers, Abdullah Melik, states that there has been a serious increase in flour, bulgur and fodder crops, and says that the problem in grain and pulses production will also affect meat and milk production.

Melik explains this issue as follows: "Meat and milk producers will not be able to find feed, and when they cannot find it, they will quit their job. The weight of meat and milk will increase, and citizens will buy everything much more expensive, from bread, bulgur, pasta, meat and milk.

Noting that agricultural production in Turkey is very costly, President of Şanlıurfa Chamber of Agricultural Engineers Abdullah Melik underlines that the loss of 58 thousand farmers registered in the province is very high:

"One kilo of wheat germ is 3 thousand 500 liras. The seeds of lentils are 7-8 thousand liras. Fertilizer, diesel, pesticide prices are quite high. Turkey determines the floor price according to the world stock markets and justifies itself, but today, the cost of farmers in countries such as Romania and Russia is not the same as in Turkey, it is much more expensive in our country. Therefore, Turkey, the base price should be determined according to the costs incurred.

This price increase in wheat germ also affected the sales prices of wheat. It is seen that Turkey's orientation to other foreign markets, especially wheat, has increased the prices. Turkey, which has the largest land ownership in Europe in

terms of agricultural areas, has unfortunately become a foreign-dependent country due to climate change/crisis and production embargoes. With the Ukraine-Russia war, there has been a great leap in wheat prices. Futures wheat papers on the Chicago Stock Exchange have reached the same level as the food crisis in 2008. For example, Turkey imported an average of 230 dollars a ton of wheat in 2020, this price increased to 297 dollars in 2021 and has reached 346 dollars at the moment with the effect of the pandemic. Wheat prices are at the same level as they were during the food crisis in 2008. In addition to all these, with the foreign exchange fluctuation in Turkey, it has become almost impossible to reach wheat, which is the main consumption product. This situation caused the food crisis with the effect of both the climate change/crisis and the economic crisis, and left Turkey and the world face to face with this crisis.

2. **Please share a summary of any relevant data that captures how climate change adversely affects the full realization of the right to food, taking into account discrimination, including multiple and intersecting forms of discrimination.**

The United Nations, warning that the current food crisis could turn into a global disaster in 2023 if measures are not taken, announced that approximately 50 million people are facing famine.

It is calculated that the food need of the world population, which is expected to be 9.7 billion in 2050, will increase by at least 50 percent. On the other hand, it is one of the bad possibilities that food production has to decrease due to the climate crisis, the decrease in soil quality and inefficient production methods. If fast, effective and radical measures are not taken all over the world, the food crisis will be inevitable. Experts agree that the climate crisis is due to the increase in carbon in the atmosphere. The most important factors that increase the carbon rate are energy and food production.

Although the current food regime presents itself as a promise of global development and hunger relief, it contains social and ecological contradictions. With the transformation of production, distribution and consumption relations around food, and increasing income and wealth inequality, various constraints arise in the access of the poor segments of societies to food.

The corporate food regime, on the one hand, causes the deepening of ecological destruction and the climate crisis, on the other hand, it causes the poor to become vulnerable in the face of environmental problems.

More food is produced worldwide than is needed to feed the entire population. However, 819 million people are hungry, 821 million people are malnourished, 154 million children under the age of five are stunted, 613 million women and girls between the ages of 15 and 49 suffer from iron deficiency, and 2 billion adults are overweight or obese. From 2019 to 2021, the number of undernourished people

increased by 161 million, although there was not a huge decrease in production.

Every year, 9 million people die in the world due to malnutrition.

Millions of people's lives are in danger due to the long-lasting food crisis in Africa for different reasons. According to the data of the UN Food and Agriculture Organization (FAO), one out of every 5 people in the African continent cannot eat healthy due to reasons such as climate change, conflicts, the Kovid-19 epidemic and the Ukraine-Russia War. While the drought effect increases due to insufficient rainfall in Kenya, Nigeria, South Sudan, Chad and Ethiopia, especially in Somalia, some countries are faced with the most severe drought since the 1980s. While animals died due to the food crisis, millions of families had to leave their homes.

While at least 30 million people are affected by the food crisis in Somalia, Kenya and Ethiopia, according to the UN, 81 million people in eastern Africa cannot have food security and 16 million Africans cannot access clean water. While the food crisis affects children, the elderly and women the most, more than 1.7 million children in Ethiopia, Kenya and Somalia are in need of urgent attention, according to the UN Children's Fund (UNICEF). Somalis living in refugee camps where aid cannot reach, are fed only with rice or tea as daily food.

The food crisis that the whole world is experiencing; It is largely due to a combination of effects such as conflict and civil war, climate change-related causes such as unpredictable weather conditions, and disruption of long/globalized supply chains due to the pandemic.

Increasing food prices in this process, combined with declining incomes and growing income inequality, are causing more and more households to experience food insecurity.

- 3. Please describe any specific measure, including public policies, legislation, practices or strategies that your Government has undertaken, in compliance with applicable international human rights law, to promote an approach to climate change mitigation and adaptation, as well as loss and damage, that ensures the full and effective enjoyment of the right to food. Please also note and identify any relevant mechanisms for ensuring accountability for these commitments including their means of implementation.**

Data on the subject could not be reached.

- 4. Please describe any mechanisms and tools that are in place to measure and monitor the impacts of climate change on the full realization of the right to food.**

The "Health and Climate Change" report published by the Lancet Countdown has been interpreted by experts as the most alarming picture ever detected.

The report, in which 120 experts from 35 different institutions such as the World Health Organization, World Bank, University College London, and Tsinghua University analyzed more than 40 indicators, revealed the most alarming picture to

date.

According to the Lancet report, which states that if urgent measures are not taken, climate change will increasingly threaten global health, it is necessary to focus on green recovery to prevent this situation.

According to the report, which states that no country, rich or poor, is immune from the increasing effects of climate change on health, unless urgent action is taken, climate change will increasingly threaten global health, affect lives and livelihoods, and put pressure on health systems. According to the report, climate change and the activities that cause it harm the environment through urbanization, intensive agricultural practices, unsustainable food systems, air transportation, tourism, trade and fossil fuel-based lifestyles.

For example, the European Union's five-year marginal air quality improvements through 2019 are expected to yield approximately US\$8.8 billion each year, if sustained. The annual average decrease in life years lost is predicted to decrease further with improvements in air quality.

The Lancet Report states that a quarter of the world's greenhouse gas emissions originate from food production. Considering this situation, studies have been started to reduce the 9 million deaths related to malnutrition every year.

5. **Please identify and share examples of promising practices and challenges in the promotion, protection, and fulfilment of the full realization of the right to food in the context of the adverse effects of climate change.**

It has led to further disposal of the food industry by increasing, nature-expanding human activities. The food crisis has come to an insoluble place due to the climate crisis facing the world, along with natural and rural grains. The world ceases to be a livable planet, by making natural and rural areas humane and destroying all resources by prolonging it day by day. The Covid-19 pandemic will show itself with the melting of the glaciers, with more viruses that need to be fought with the climate crisis last year. Humanity is saving due to its human-oriented purposes such as energy production, mining activity, construction pressure, big investment targets in natural and rural areas, and as a result, they live in a world without a future by spending natural resources and agricultural lands.

The most important indicator of the food crisis in the world is in the developments in the field of industrial livestock.

It is seen that the largest rate of birth to global greenhouse gas emission rates of foods is in the field of industrial livestock.

Global greenhouse gas emission rates in food production:

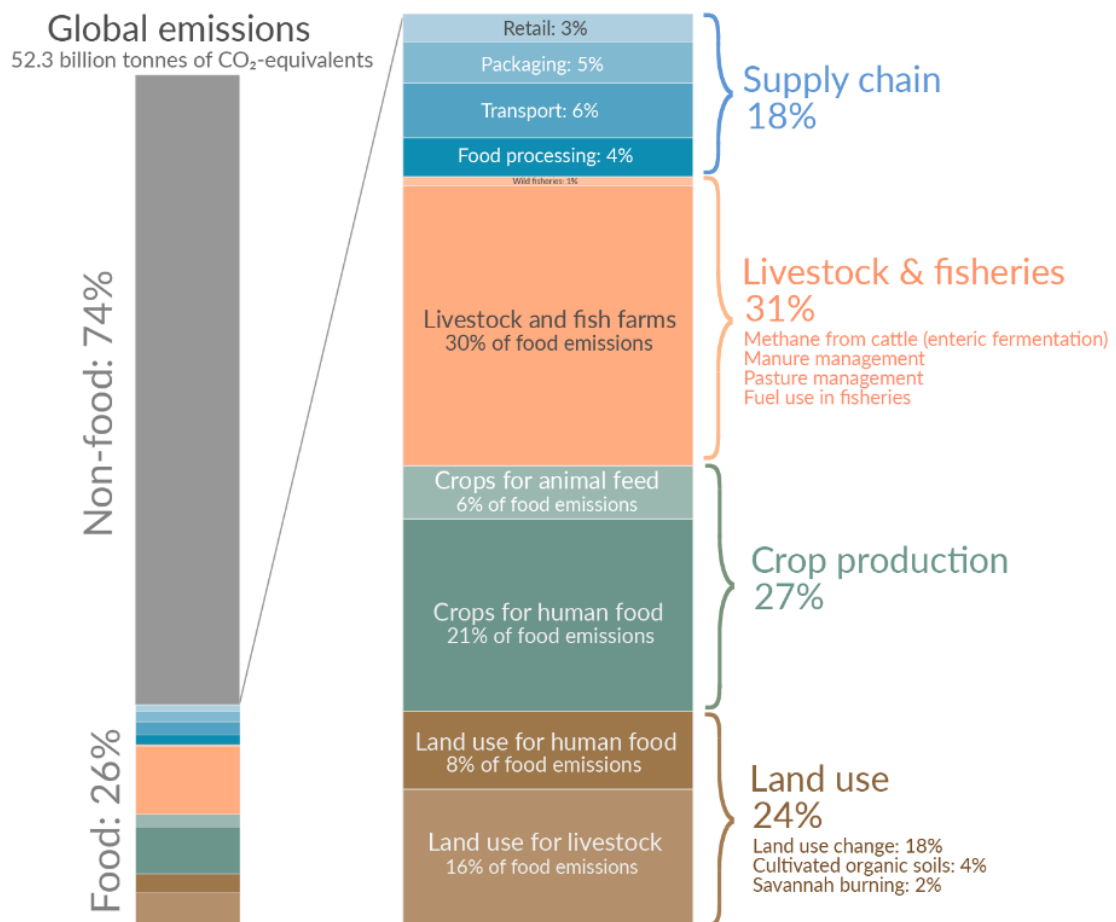
Retail: 3% food emissions

Packaging: 5% food emission

Transport: 6% food emissions

- Food processing: 4% food emissions
- Livestock and fish farms: 30% food emissions
- Crops for animal feed: 6% food emissions
- Crops for human food: 21% food emissions
- Land use for human food: 8% food emissions
- Land use for livestock: 6% food emissions

Global greenhouse gas emissions from food production



Data source: Joseph Poore & Thomas Nemecek (2018), Reducing food's environmental impacts through producers and consumers. Published in *Science*.
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Deforestation, which is the main cause of industrial livestock, causes an average of 137 plant and animal species to be lost every day. 91% of the trees destroyed to date in the Amazons Forests have been slaughtered to make room for industrial livestock. There is an incredible inefficiency and waste in return for the great damage this industry causes to nature.

As the population of captive animals in industrial livestock increases, the ratio of

grain and soybean produced to feed them also increases, and forest areas are destroyed by clearing agricultural areas for the production of these products. As a matter of fact, 77% of the world's agricultural land is used for the production of livestock and feed.

The plowing of the soil by industrial vehicles releases carbon dioxide into the atmosphere. Chemical fertilizers cause nitrogen oxide emissions. On the other hand, while the excrement of animals can act as fertilizer naturally, they only contribute to the concentration of methane gas in the atmosphere in industrial farms. Those who argue that industrial products are more accessible and cheaper for people should reconsider this issue. Likewise, the counterpart of industrial animal husbandry is the rapid destruction of nature.

The production of animal products requires more water than the production of plant products. 70% of the world's fresh water resources are used in agriculture. No other consumer product needs so many resources.

Like everything in nature, water has a cycle: every soil is wet to a different degree, has different pH ratios, and accordingly there is a cycle of groundwater and rainwater. By interfering with these cycles, industrial livestock unfortunately disrupts the salt and water ratios of the soil and destroys ecosystems. Another dimension of water pollution is the most well-known of the toxic wastes used in agriculture: pesticides. Pesticides get into the water: from streams to rivers, from rivers to seas. Due to the nitrogen and phosphorus they contain, they play with the balance in the seas and lead to the formation of dead zones: As of 2008, 169 marine areas were defined as "dead zones".

The lives of millions of people are in danger due to the fluctuations in the world economy, global warming and the food crisis caused by regional conflicts. The ongoing drought and conflicts in many countries, as well as the disruptions in grain shipments due to the war in Ukraine deepen the danger, while millions of people face the threat of hunger. The United Nations warned that the crisis could turn into a global disaster in 2023 if measures are not taken. According to the World Food Programme, about 50 million people in 45 countries are on the brink of famine.

While more than 800 million people worldwide go to bed hungry every night, the International Monetary Fund has warned that the world could face a food crisis as large price fluctuations increase food insecurity.

With the food crisis threatening the whole world in recent years, we see that sustainable products are increasing in the market, single-use plastic products are replaced by more permanent products, the use of public transportation is encouraged, and even sustainable models are more common in the economy. Although all of these are good for the world – despite having a larger carbon footprint than transportation – it is known that industrial livestock farming does

not have enough visibility in the field of sustainable development.

It can be expressed as one of the good practice examples from the KORU Istanbul project, which is carried out by the Istanbul Metropolitan Municipality, which is at the project stage in Istanbul, and in which we are involved as the Northern Forests Research Association. The project is a strategic plan and aims to PROTECT Istanbul Northern Forests, natural and rural areas. The vision, planning principles and objectives determined in this context are as follows:

Preserve Istanbul Vision;

“Protecting, Developing, Healing Istanbul”

“With a sustainable management approach in the era of the Climate Crisis;

Protecting natural and rural areas,

Developed nature-friendly rural production and living opportunities,

Istanbul Northern Forests and Rural Areas, whose destroyed areas were rehabilitated and improved”

is in the form.

Planning principles determined within the framework of the vision are gathered around 3 main headings. These principles are in the form of protecting, developing and improving.

Thematic objectives were determined in four different dimensions: ecological structure, social-economic structure, spatial structure and administrative structure. These objectives/strategic objectives are shown in the table below.

Ecological Structure Purpose: To protect and sustain the resources and biodiversity in natural areas

Social Economic Structure Purpose: Realizing rural development in Istanbul Northern Forests, natural and rural areas

Spatial Structure Purpose: To improve the Istanbul Northern Forests and the rural environment, to rehabilitate the destroyed areas and bring them into the forest and rural area integrity

Administrative Structure Purpose: To create a sustainable natural and rural management model based on good and democratic governance principles.

Within the scope of different projects within the scope of the project, projects have been developed to eliminate or reduce the negative effects of climate change. The projects handled in this context are as follows:

Appropriate Planting Project Against Diseases and Insects, Awareness Raising Against Chemical Use and Planting Project, Pellet Production Plant Project, Rainwater Collection Plants Project

With these projects, it is aimed to reduce the effects of climate change with each passing day, and to protect and preserve the damaged natural and rural areas.

The purpose of social economic structure determined within the scope of KORU Istanbul study; aimed at rural development and within the scope of this goal, projects that set certain standards in all stages from access to safe food, support of rural production, organization, safe food production to consumption were proposed. These projects are as follows:

No Intermediary Sales System (ASS) Project, Beekeeping Production Guide Project, Fishery Production Guide Project, Animal Production Guide Project, High Value Added Products Guide, Agricultural Production Guide Project, Tomato Paste and Canned Sealing Machine Support, Harvest & Threshing Dryer Support Project, Istanbul Pasture Areas Protection and Development Project, Village Festivals Project, Village Products Project, Animal Products Hal Kap Standards Project, Animal Products Safe Food Education, Information and Production Certificate Project, Compost Production Trainings, Agricultural Products Hal Kap Standards Project, Agricultural Products Safe Food Training , Information and Production Certificate Project

The KORU Istanbul project is one of the promising practices in promoting, protecting and fulfilling the full realization of the right to food with these projects it has developed.

6. Please include examples and promising practices and challenges that highlight international and multilateral cooperation and approaches that promote the full realization of the right to food.

Dairy and meat giants in the industry have been operating with climate exemption for a long time. These exemptions are just being exceeded, and emission reduction reforms are being implemented in order to reach the 2030 Sustainable Development Goals.

Industrial animal husbandry is a trade after all, so there are investors in this sector as well. Investors in meat and dairy companies can indirectly increase their market power. Such a challenge arises here for investors in this sector and those who are trying to come to terms with climate risks. Pro-production policies can be protected through lobbying, at the expense of the environment and public health.

To begin with, governments can divert public resources from factory farming and large-scale industrial agriculture to smaller, ecologically oriented family farms. Governments can also use procurement policies to help create markets for domestic products and promote cleaner, more vibrant farm economies. All these incentives are applied for industrial agriculture and animal husbandry in

many countries. In countries where social demand has changed in an ecological direction, incentives have turned in this direction.

To curb global warming and avert the ecological crisis to some extent, consumers and governments need to do more to create, support and empower environmentally conscious producers.

Beginning in the 1950s, a new approach to the food system dominated with the green revolution. This approach has had many structural consequences in the production leg: development of high-yielding cereal varieties, expansion of irrigation infrastructure, use of the latest technological and capital inputs, promotion of hybrid seeds, synthetic fertilizers and pesticides, consolidation of lands.

Since then, the per capita food supply has increased by more than 30 percent. Nitrogen fertilizer use has increased eightfold and irrigated areas doubled. Along with this, and in parallel, the liberalization of international trade brought about by neoliberal globalization that has dominated since the 1980s, the vertical integration of food production and supply chains, innovations in technology and food processing, and changes in consumer demand due to marketing completed the evolution of the corporatized food regime and agri-dominated the food system.

This food regime has reshaped and continues to shape the agri-food system on different temporal and spatial planes.

The KORU Institute will be established within the scope of the KORU Istanbul project mentioned in the 5th question. With this institute, it is aimed that rural producers will come together and carry out R&D studies and receive training within the scope of production techniques and possibilities. This institute will be established by the Istanbul Metropolitan Municipality. In this context, it is one of the examples emphasizing multilateral cooperation. Also within the scope of KORU Istanbul project

With these projects to be carried out by IMM, such as the No-Intermediary Sales System (ASS) Project, Agricultural and Animal Product Network Project (Rural Production Networks), Agricultural and Animal Product Producer Mentoring Support Project (Rural Production Networks), Producer Cooperatives Platform (online), there is a lot of cooperation with the producers. It has been developed in projects that aim to bring together manufacturers in more than one way, emphasizing one-sided cooperation.

7. **Please provide any additional information you believe would be useful to support climate action that promotes the full realization of the right to food.**

In direct relation with climate change, it is a priority for each link of the food production chain to be ecological. The agri-food system should be reconstructed in a way that both ecological production, distribution and consumption contribute to the mitigation of climate change, as well as the resilience and adaptation of production and supply chains to the effects of climate change.

Conservation of diversity through agroecological methods plays a key role here. Diversity of animals, plants, fungi and bacteria, diversity in land use, farming practices and economic diversity stand out as protective factors to minimize climatic shocks.

At the same time, the implementation of soil conservation methods and the reduction of synthetic fertilizers and pesticides will also reduce the effects of the climate crisis. In this context, ecological agriculture is supported within the scope of the KORU Istanbul study, which we mentioned in Question 5. Projects have been developed to adopt ecological methods, from production possibilities to methods. These projects are as follows:

Appropriate Planting Project Against Diseases and Insects, Awareness Raising Against Chemical Use and Planting Project, Pellet Production Plant Project, Rainwater Collection Facilities Project, Compost Production Trainings, Beekeeping Production Guide Project, Fishery Production Guide Project, Animal Production Guide Project, High Value Added Products Guide, Agricultural Production Guide Project, Tomato Paste and Canned Sealing Machine Support, Harvest & Blend Dryer Support Project, Istanbul Pasture Areas Protection and Development Project.

All these projects are among the projects that we believe will be beneficial for those who support the rural producer, encourage the full realization of the right to food, and support climate action.