MOVING
MOuntain Valorisation through INterconnectedness and Green growth

Policy Brief

BEYDAGLARI | Greenhouse Tomato

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MOUNTAIN VALORISATION THROUGH INTERCONNECTEDNESS AND GREEN GROWTH

Greenhouse Tomato Beydaglari

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Summary

Greenhouse cultivation has started in the region in the last 20-25 years and the region has become an important production centre in terms of greenhouse cultivation. The number of greenhouses in the region is increasing constantly. This increase poses a threat in terms of excessive use of natural resources, especially water resources.

There is no a specific policy to support agricultural production, especially in mountainous areas. However, there are several subsidies for crop and greenhouse production to increase farmers' income levels, productivity and production, and to strengthen infrastructure. The main problem in the region is the depletion of water resources due to drought. Measures related to irrigation water should be taken first to ensure the continuity of greenhouse production in the region.

Figure 1: Greenhouse cultivation at Beydaglari

Key Policy Messages

- ☞ Protecting natural resources
- ☞ Harmonising greenhouse expansion with natural resources
- ☞ Awareness of climate change

1. *An alternative production for the Beydaglari: Highland greenhouse cultivation*

The Beydaglari is the western extension of the Taurus Mountains, stretching parallel to the bay in a north-south direction in the west of the Antalya Bay. Livestock husbandry, forestry, agriculture and tourism are the main activities in the region.

Greenhouse cultivation is carried out on a total area of 764,206 decares in Turkey. Tomato is the most important vegetable cultivated in greenhouses and Antalya province has the highest production (TURKSTAT, 2024). In Turkey, greenhouse production is generally carried out on the plain, but in recent years it has been extended to mountainous areas such as Beydaglari. Greenhouse cultivation in the highlands has been developing since the 2000s. It is a relatively new production activity compared to other agricultural activities. Favourable climatic conditions such as daylight intensity and temperature played an important role in the development of greenhouse cultivation.

Greenhouse production begins in the highlands when production ends in the plain. The production of tomatoes in greenhouses in the coastal area stops during the summer due to extreme temperatures. In this way, demand can be met throughout the year with highland greenhouse cultivation

2. Value chain contribution to resilience and sustainability

The region has become an important production centre for greenhouse cultivation, as it is an income-generating activity. There has been an increase in employment and income levels with the expansion of greenhouse cultivation in the region. The region has started to receive reverse migration due to the fact that greenhouse cultivation can be carried out especially in the summer period on the plateau and it is a more profitable production branch compared to other production activities.

The number of greenhouses in the region is constantly increasing. This increase poses a threat in terms of excessive use of natural resources, especially water resources. As a result of climate change, precipitation in the region is decreasing, leading to droughts. It is contradictory that greenhouse areas are increasing while drought is occurring. Greenhouse irrigation in the region is largely based on groundwater. The access of the farmers to the groundwater will become more difficult with the impact of the drought.

In greenhouse tomato production, the prevalence of pests and diseases is increasing due to climate change. This has a negative impact on both productivity and product quality, and leads to an increase in production costs.

3. Policy experiences

There is no specific policy to support agricultural production, especially in mountainous areas. However, there are several subsidies for crop and greenhouse production to increase farmers' income levels, productivity and production, and to strengthen infrastructure. These subsidies include fuel, fertilizer, good agricultural practices, organic agriculture, greenhouse insurance, biological and biotechnical control, bumblebees, agricultural extension and consultancy and small family enterprise with less than 5 decares of land (Ministry of Agriculture and Forestry, 2024). Although there are several subsidies for agricultural production, the amounts are not sufficient. The majority of the greenhouses in the region are small-scale family farms. It is therefore important that subsidies are designed to protect the smallholders.

In addition to these subsidies, rural development investment grants are available for the construction of new greenhouses and for the technological renovation and modernisation of existing greenhouses. In addition, low-interest investment and business credits are available to farmers who are found to be cultivating in a new modern greenhouse facility or under controlled greenhouse production conditions in accordance with the Regulation on Greenhouse Registration System (Ministry of Agriculture and Forestry, 2024). Credit support is important in greenhouse farming due to the high number of smallholders and insufficient capital accumulation. However, in the current situation, due to the high amount of investment, bureaucratic obstacles and lack of equity capital of family farms, the take-up rate of this incentive remains very low.

4. Recommendation for future policies

The main problem in the region is the depletion of water resources due to drought. In order to protect and plan water resources, irrigation projects should be supported, dams and ponds should be built, illegal use of groundwater should be prevented and in this regard dissuasive penalties should be introduced, quotas should be applied per enterprise to prevent unnecessary use of water, water resources should be taken into consideration when installing new greenhouses and excessive increase in the number of greenhouses should be prevented.

The increasing use of pesticides to control pests and diseases poses a risk to human, animal and environmental health. In this context, research into biological and biotechnological control and support for farmers is particularly important. In addition, the widespread use of smart agriculture technologies in greenhouses is very important to minimise inputs such as irrigation water, fertilisers and pesticides.

In order to ensure the continuity of greenhouse tomato production in the region and to improve the quality, more support should be given to small family farms, production models such as good agricultural practices and organic agriculture should be disseminated, the product should be evaluated in different ways such as drying etc., the market structure should be improved, cooperatives and farmers' associations should be established in marketing and export markets should be increased.

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