



<http://academicjournalonline.org/index.php/ijtmm>

## **AGRICULTURE PROMOTION AND DEVELOPMENT IN MOUNTAIN AND MOUNTAIN REGIONS**

**Abdulxayeva Gulshan Maxmudovna**

Tashkent State University of Economics, Associate Professor, Department of "Management and Marketing," External Faculty

**Abstract:** The article focuses on specialization in the cultivation of agricultural products in mountain and sub-mountain regions, the development of agriculture, and the rational use of the opportunities presented by these regions. In addition, the rational and reasonable use of regional network capacity, the development of agriculture in mountainous and sub-mountainous regions, and their opportunities in this regard are described.

**Keywords:** mountain and sub-mountain, agriculture, specialization, product, region, and market.

### **Introduction**

In the reforms carried out in the agrarian sector of our republic, it is considered an important task to support the specialization of regions for the cultivation of certain types of agricultural products, taking into account the natural climate and soil conditions, and a number of measures are being implemented to ensure its implementation.

Mountain and sub-mountain regions have nearly all production opportunities for growing food products such as fruits, grapes, potatoes, vegetables, meat, and meat, which can meet demand from both domestic and international markets. One of the ways to activate these opportunities is to make the mountain and sub-mountain regions specialize in the cultivation of certain types of agricultural products by introducing a system of rational and balanced use of agricultural resources.

The purpose of this system is to provide our domestic markets with high-quality and environmentally friendly products by increasing the volume of food production in mountain and sub-mountain areas and to increase their export potential.

The organizational structure of such a system consists of clusters, cooperatives, farmers, and peasant farms specializing in the cultivation of fruit, including traditional and non-traditional tropical fruits, grapes, vegetables, cattle, and sheep.

### **Main part**

According to our research, the mountain and sub-mountain agriculture of Surkhandarya region differs from other mountain and sub-mountain agriculture of our country in some ways, such as soil types and their spread and fertility level, formed in altitude regions and zones that show strong soil-geographic laws due to their geographical location and hydrometric regime, the organization of the agricultural management system, and the organizational-economic possibilities.



<http://academicjournalonline.org/index.php/ijtm>

In this regard, indicators such as soil composition and productivity, degree of degradation, precipitation amount, and camera temperature collector are analyzed and compared, and conclusions and suggestions are made regarding the specialization and support of agriculture in certain areas and branches of the mountain and sub-mountain regions. It is recommended to prepare conclusions and proposals.

According to the analysis, there are 12 types of soil types used in mountain and sub-mountain agriculture in the Surkhandarya region. 27.1% of them are light brown meadow steppe and brown soils, and 37.1% are typical gray and light gray soils.

In terms of soil composition, 66.4 percent of the land used in mountain and sub-mountain agriculture is heavy and medium sandy soil, but the soil erosion index is only 0.15 (the average erosion index is 0.06 and the strong erosion index is 0.09). (Tables 1 and 2).

**Table-1**

**The mechanical composition of the soils of the cultivated lands used in agriculture in the mountainous and sub-mountainous regions, in percentage of the total<sup>1</sup>, 2021**

| Areas                           | Broadcast lands, in percent, to a thousand | Soil type  |             |           |      |
|---------------------------------|--|------------|-------------|-----------|------|
|                                 |  | Heavy sand | Medium sand | Light san | Sand |
| Mountain and sub-mountain areas | 100  | 30,8       | 35,6        | 24,5      | 9,1  |
|                                 | 244,9                                      | 75,4       | 87,3        | 59,9      | 22,3 |
| Smoothness                      | 100  | 34,1       | 32,2        | 24,9      | 8,8  |
|                                 | 73,0                                       | 24,9       | 23,5        | 18,2      | 6,4  |
| Total by regions                | 100  | 31,6       | 34,7        | 24,5      | 9,2  |
|                                 | 317,9                                      | 100,5      | 110,3       | 77,9      | 29,3 |

Note: The sum is expressed as a percentage of the total, and the denominator is 1,000

In the mountain and sub-mountain agriculture of the Surkhandarya region, mountain brown and dark-hairy, typical and light-hairy gray soils (in pre-mountain and pre-mountain terrains) are distributed; the amount of humus in the upper horizon of the soil is 5-7% on the northern slopes and 2-3% on the southern slopes. It is explained by the fact that carbonates have been washed away from the soil.

**Table 2**

**The degree of erosion of the soils of cultivated lands used in agriculture in mountain and sub-mountain areas<sup>2</sup>, 2021**

| Areas             | Irradiated lands | Uneroded lands | Less eroded lands | Average eroded lands | Strongly eroded lands |
|-------------------|------------------|----------------|-------------------|----------------------|-----------------------|
| Mountain and sub- | 100              | 77,0           | 6,7               | 6,4                  | 9,1                   |

<sup>1</sup> The author's calculations are based on the data of the Department of Land Resources, Geodesy, Cartography, and State Cadaster of Surkhandarya Region, 2021.

<sup>2</sup> The author's calculations based on the data of the Land Resources, Geodesy, Cartography and State Cadaster Department of Surkhandarya Region, 2021



<http://academicjournalonline.org/index.php/ijtmm>

|                  |       |       |      |      |      |
|------------------|-------|-------|------|------|------|
| mountain areas   | 244,9 | 188,7 | 16,5 | 15,8 | 22,4 |
| Smoothness       | 100   | 96,1  | 2,5  | 1,5  | -    |
|                  | 73,0  | 70,2  | 1,6  | 1,1  | -    |
| Total by regions | 100   | 81,6  | 8    | 6,1  | 7,0  |
|                  | 317,9 | 259,4 | 25,4 | 1,9  | 22,4 |

Note: the sum is expressed as a percentage of the total, and the denominator is thousand

One of the important criteria that should be taken into account in the development of mountain and sub-mountain agriculture is the salinity level of the cultivated land.

Today, 81.4% of the arable land used for agriculture in the mountainous regions is not saline; this indicator is 43.2% in the mountainous regions, and only 13.2% in the plains (Table 3).

Table-3

**The degree of salinity of irrigated lands used in agriculture in mountain and sub-mountain areas, in percentage of the total<sup>3</sup>, 2021**

| Areas              | Broadcast lands, as a percentage of the total | Degree of salinit |      |         |        |
|--------------------|---|-------------------|------|---------|--------|
|                    |   | To salinit        | Weak | Average | Strong |
| Mountainous        | 100   | 81,4              | 17,3 | 0,8     | 0,5    |
| sub-mountain areas | 100   | 43,2              | 31,1 | 14,2    | 11,5   |
| Smoothnes          | 100   | 13,2              | 44,4 | 30,5    | 11,9   |
| by regions         | 100   | 73,0              | 21,1 | 4,2     | 1,7    |

That is, 46.0% of the irrigated land used in mountain and sub-mountain agriculture is not saline. This is 48.5% of the total non-saline land in the region.

According to the analysis, during the last two decades, the share of moderately and strongly saline lands has decreased, both in absolute terms and in relative terms. Therefore, the above-mentioned situation and this situation should be taken into account in the development of mountain and sub-mountain agriculture.

One of the next important factors that should be taken into account in the development of mountain and sub-mountain agriculture is the relief of the agricultural area. Erosion, cave migration, ravine migration, wide and deep branching of riverbeds, as well as erosion of mountain rocks, influence the formation of relief in mountain and sub-mountain regions. Given the presence of tree groves, shrubs, semi-shrubs, ephemerals, ephemerides, and large trees in the regions of the region formed by the height of the topography of the agricultural sector and areas (mountainous (hills), mountain, and high mountain regions), fruit and horticulture, viticulture, and pasture are used in these areas. in accordance with the development of animal husbandry and sheep breeding.

<sup>3</sup> The author's calculations based on the data of the Land Resources, Geodesy, Cartography and State Cadaster Department of Surkhandarya Region,2021



<http://academicjournalonline.org/index.php/ijtm>

Mountain and mountain agriculture are characterized by small-scale plow farming and mountain irrigation, "terrace" ("terracnoe zemledelie") and dry farming, medicinal and medicinal horticulture, mountain horticulture, viticulture and viticulture, and the development of mountain and mountain pasture livestock.

Taking into account the conditions and opportunities created by our government at the national level regarding the use of pastures during the last 2-3 years, we believe that it is necessary to develop mountain and sub-mountain pasture cattle breeding with the introduction of the "smart pasture" system and in the form of "pasture user cooperatives" management.

Studies show that during the last 20–30 years, the productivity level of pastures in mountain and sub-mountain areas has decreased by 1.5–2.0 t/h, erosion has increased by 4–5%, and the degree of dusting has increased by 8–12%<sup>4</sup>. As a result, improving the ameliorative condition of pastures in mountain and sub-mountain pastures, establishing plantations of valuable and nutrient-rich crops that have high nutritional value and are appreciated by livestock, planning and graphic ecocide of pastures, and pastures surrounded by grasses that give positive camaracini in practice It is recommended to introduce a system of use. It will be possible to increase the productivity of pastures up to 10–12 ts/ha by establishing plantations of valuable fodder such as ecpartset, actragul, izen, terecken, and shuvok. As a result, conditions will be created to optimize and reduce the amount of pasture that was created due to unsystematic grazing of livestock, increasing the volume of meat production by 7.5-10.0 percent (11.1-14.7 thousand tons) within 2-3 years due to the increase in pasture productivity, cut production by 10.0-12.0 percent (67.0-80.4 thousand tons), and meat production by 12.0-15.0 percent (17.7-22.1 thousand tons) after 4-5 years due to the increase in pasture productivity.

That is, the application of an innovative approach and best practices for the use of pastures in mountain and foothill agriculture, pasture use management, the introduction of a planning system and the establishment of a form of economic management (pasture user cooperatives) based on the principles of cooperation profits increase by 8-1.1 billion y.e.

Research shows that global climate change and deterioration of the ecological situation have become a factor determining not only the stability of agricultural production, but also the future development trends of this field and its industries. Today, regional agriculture serves as both an base and a factor in determining the structure of the network and its diversification directions.

We believe that in the development of mountain and sub-mountain agriculture, it is necessary to pay attention to the selection of types and varieties of crops planted not only in a single crop, but also in a repeated - "toqsonbosti" (the method of sowing

---

<sup>4</sup> Davronov O.O., Norkulov M.N., G'aniev O.O. Current condition of pastures and hayfields of Boysun district of Surkhandarya region.//Journal. "THE LAND OF UZBEKISTAN" - Issue 2, 2019. Page 18.



<http://academicjournalonline.org/index.php/ijtmm>

crops in autumn and leaving them under snow is called "tuqsonbosti") system. It is worth noting that the development of mountain and sub-mountainous areas of the Surkhandarya region, such as Boysun, Sariosiyo, Denov, and Uzun, and the implementation of a long-term support system for horticulture and viticulture are beneficial both from an agrotechnical point of view and from the point of view of production and economics<sup>5</sup>. This serves to grow fruit and grape products that can be competitive not only in domestic but also in foreign markets in terms of ecological and consumption characteristics. Therefore, it is appropriate to organize activities in this direction in a system of fruit and horticultural clusters or a complex operating on the principles of clusters and cooperatives based on the principles of cooperation.

In our opinion, the factors related to the development of economic activity in the specialization of mountain and sub-mountain agriculture; factors related to consumption; agrotechnological factors; factors related to changes in the organization of the management system and its monitoring system; we believe that taking into account the classification of regulatory and legal factors (both related to support and restrictions) will serve to increase the economic and social efficiency of specialization.

In accordance with the unique natural and climatic conditions of the mountain and sub-mountainous regions, the main directions of agricultural development and its sustainable development are the cultivation of grain, potatoes, medicinal plants, non-traditional tropical fruits in horticulture, i.e. walnuts, almonds, which are in great demand for export, in animal husbandry, cattle breeding in cut direction, goat breeding in meat direction, partridge breeding<sup>6</sup> in poultry breeding, breeding of domestic and useful partridge and deer, in addition, special attention should be paid to the development of rabbit breeding, fishing, especially beekeeping.

## CONCLUSION

Within the framework of the study, the scientific and practical proposals and recommendations of regulatory-legal, organizational-economic and economic-financial character in determining, justifying and ensuring the stability of the main directions of agricultural development in the mountain and sub-mountain areas of our republic are used to determine the prospective directions of further development of agriculture in all the mountain and sub-mountain areas of our

## References:

1. Abdulkhaeva G. "Main directions of agricultural development of mountain and sub-mountain regions" //Scientific progress. - 2022. - T. 3. – no. 2. - S. 313-322.

---

<sup>5</sup> Dorohova E.A., Baymetov K.I., Akhmedov Sh.M. "Description of sorting and form template". - T.: "Science and technology", 2016, pp. 188-189.

<sup>6</sup> Explanation. 100 g of fried partridge meat contains 250 kcal. Source: Selo-Exp.com



<http://academicjournalonline.org/index.php/ijtm>

2. Abdulkhaeva, G.M. "Foreign experience of innovative development of agriculture in mountain and sub-mountain regions." Innovation in Economics 3.3 (2020).

3. Abdulkhaeva.G.M. "Development of the market of agricultural products by supporting the economic activity of women's entrepreneurship in mountain and sub-mountain regions". International Scientific and Practical Conference: "ACTUAL TASKS OF THE EFFECTIVE USE OF MODERN MARKETING CONCEPTS IN THE DEVELOPMENT OF THE NATIONAL ECONOMY" 25.10.2022 45-54.

4. Abdulkhaeva G. and others "Mechanisms and theoretical foundations of regulation of the system of land use" Academic Journal of Digital Economics and Stability Volume 14, 2022. ISSN 2697-2212 Online.

5. Abdulkhaeva G. and others The Impact of Climate Change on Agricultural Production and Adaptations to Climate Change in Uzbekistan. //J Ekonomika i predprinimatelctvo. No. 5, 2018. - R. 533-536.

6. Gashkina C.A. Organizational - economic mechanism of uctoychivogo razvitiya celckogo hozyayctva gornyx regionov (na primere republic altai) - Krasnoobck - 2007.C.215.

7. Mukhtorov A. Kh., Icroilov A. C., Yucupova F. M., Abdulkhaeva G. M. Ways to improve organizational and economic methods of growing oilseeds. Monograph.– T: Tafakkur, 2018. - p.162

8. Mukhtorov A.Kh. Theoretical principles of the development of the agrarian world in the conditions of globalization of the economy. Monograph.–T.:, Science and technology, 2016, 280 pages