

IMPACT OF CLIMATE CHANGE ON AGRICULTURAL PRODUCTS

Nurullaev Mahmud Olim o'g'li

Alimov Damir Odil o'g'li

Samarkand agroinnovations and research university

Abstract: This scientific work shows that the lack of a systematic approach to the assessment of the impact of climate change on agricultural development (without taking into account environmental, economic and social factors together) often leads to biased conclusions. Implementation of the proposed climate change mitigation mechanism for agriculture will contribute to efficient use of natural resources, preservation and increase of natural capital, reduction of water pollution, reduction of carbon emissions, prevention of loss of ecosystem services and use of natural resources, as well as , biodiversity, increase the ecological stability of cultural and natural landscapes and ultimately contribute to the sustainable development of agriculture.

Key words: Ecosystem, biological diversity, global climate change, vegetation period, remedial measure.

Introduction

Global climate change is a serious problem for humanity. Nevertheless, there is still no clear answer to the question of what is the cause and consequence of this process. This is explained by the fact that climate change is a complex problem due to both natural factors and the increasing influence of human economic activities.

Materials and research methods

The overall tone of the realized forecasts is positive - they predict positive outcomes for agriculture from global climate change. As a rule, the following are indicated as positive consequences:

- increase in the area of agricultural land due to the shift of natural-climatic zones;
- increasing the duration of the vegetation period;
- to increase heat supply to agricultural crops and increase their productivity.

In addition to changes in the productivity of agricultural land, climate warming leads to other socio-economic and natural consequences, which in turn negatively affect the working conditions of agriculture, in particular:

- changing the level of productivity of agricultural lands as a result of changes in the hydrometric regime of the regions, soil erosion, mineral starvation, salinity, salinity and flooding, pollution and desertification;
- increase of water consumption of agricultural crops in arid regions, decrease of water supply and deterioration of the quality of water resources;
- reconstruction of the biota, reduction of the quality of life of the population, etc.

All this indicates that the possible consequences of climate change for agriculture may be negative in most parts of the country and important for the economy as a whole.

A comprehensive approach to the assessment of this problem leads to the conclusion that agriculture not only affects climate change, but also the transformation of natural landscapes into agricultural landscapes (ploughing), changes in the hydrometric regime, and significant contributions to climate change. allows to come. Conducting a complex of remedial measures (agrotechnical, agroforestry, hydrotechnical, chemical, biological) and others. In this case, it is an optimistic assumption about the positive effect of climate warming on the growth of agricultural land due to the change of natural-climatic zones.

The expediency of the extensive way of agricultural development is also shown by the following socio-economic and ecological reasons.

The area of agricultural land is not a limiting factor. In addition, according to various estimates, during the period of economic reforms implemented in the agro-industrial complex, a decrease in cultivated areas was observed. Due to the expected expansion of territories due to climate change, large areas of agricultural land with high potential (ameliorative land) are currently not being used.

In all natural-climatic zones, the high level of destruction of the structure of natural landscapes (the ratio of intensively used land to the total landscape area) exceeds the ecologically permissible values (1.5-2 times higher). And this shows the need to convert existing cultivated areas into semi-natural landscapes. Special attention should be paid to the consideration of ecological and socio-economic factors through the model and system of criteria developed in the justification of the complex of melioration measures. Such an approach to justifying the level of destruction of the natural landscape structure and the complex of remedial measures using advanced farming systems corresponds to the policy of "double victory" (allows to obtain environmental benefits as well as economic benefits).

Summary

Official government documents are often dominated by projections showing the positive effects of climate change on agricultural development. Evidence is presented as a result of possible climate change. In order to compensate for the consequences of climate change in the agro-industrial complex, it is necessary to develop a new model of agricultural development, its implementation is aimed at solving problems such as mitigating the consequences of climate change and developing agriculture. It is necessary to maintain the level of food and ecological security of the country and to minimize the impact of agriculture on the climate.

References:

1. Влияние глобальных изменений климата на функционирование основных отраслей и здоровье населения России. М.: Эдиториал УРСС, 2001, - С. 192.
2. Научно-прикладной справочник по климату СССР. Серия 3. Многолетние данные. Часть 1-6. Выпуск 28. Ленинград. Гидрометеиздат. 1990. - 355 с.
3. Global Warming of 1.5 °C / IPCC special report. – URL: <https://www.ipcc.ch/sr1> (дата обращения: 10.12.2020).
4. John T. A., Solomon Z. D., Sean A. P., Hegewisch K. C. Agricultural risks from changing snowmelt // Nature climate change. – 2020. – Vol. 10(5). – P. 459–471. – URL: <https://doi.org/10.1038/s41558-020-0746-8> (дата обращения: 30.11.2020).
5. Namazov, Kh., & Khakimova, M. (2020). NEW METHOD OF USING LAND RESOURCES IN THE SUBTROPICAL ZONE OF SOUTH UZBEKISTAN. Innovative Technologylar , (4 (40)), 77-80
6. Rakhimov, D., Juliev, M., Agzamova, I., Normatova, N., Ermatova, Y., Begimkulov, D., ... & Ergasheva, O. (2023). Application of hyperspectral and multispectral datasets for mineral mapping. In E3S Web of Conferences (Vol. 386, p. 04007). EDP Sciences.
7. Nurullayev Mahmud Olim o'g'li. (2023). MARKETING VA UNING RIVOJLANISH BOSQICHLARI, KELAJAKDA RIVOJLANISH IMKONIYATLARI. IQRO , 2(1), 134–137. Retrieved from <https://wordlyknowledge.uz/index.php/iqro/article/view/246>
8. Saydullaeva, Fotima. "DOES AGRICULTURAL PRODUCTION DIVERSITY CONTRIBUTE DIETARY DIVERSITY? EVIDENCE FROM RURAL HOUSEHOLDS OF SAMARKAND REGION IN UZBEKISTAN." PEDAGOGICAL SCIENCES AND TEACHING METHODS 2.19 (2023): 114-122.
9. Alimov D. O. QISHLOQ HUDUDLARI AHOLI DAROMADLARINING TARKIBI, UNDAGI DEHQON VA TOMORQA XO 'JALIKLARI FAOLIYATI NATIJASIDAN KELADIGAN

DAROMADING STATISTIK TAHLILI //Educational Research in Universal Sciences. – 2023. – T. 2. – №. 6. – C. 296-302.

10.Nurullayev, M. O. O. (2023). BALIQCHILIK SOHASIDA INVESTITSIYON VA INOVATSIYON FAOLIYATNING USTUVOR YO‘NALISHINI ISHLAB CHIQISH. Academic research in educational sciences, 4(SamTSAU Conference 1), 699-708.

11.Alimov, D. O. (2022). QISHLOQ HUDUDLARIDA AHOLI DAROMADLARI HOLATI VA OSHIRISH ISTIQBOLLARI. Academic research in educational sciences, (Conference), 79-85.