AGRICULTURAL AND ENVIRONMENTAL PROBLEMS

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Annotation. Since the Industrial Revolution and the "green revolution," agricultural methods have intensified, leading to increased crop yields and food production. This has sustained a growing global population, with over 700 million hectares dedicated to growing staple cereal grains, nearly half of all cultivated land. This dissertation describes agriculture and its problems.

Keywords: intensive, population, environmental, irrigation, agricultural, ecosystems, fundamental knowledge , eco-efficiency, loss of aquifers

Аннотация. После промышленной революции и «зеленой революции» методы ведения сельского хозяйства стали более интенсивными, что привело к увеличению урожайности сельскохозяйственных культур и производству продуктов питания. Это поддержало рост населения планеты: более 700 миллионов гектаров отведено под выращивание основных зерновых культур, что составляет почти половину всех обрабатываемых земель. В этой диссертации описывается сельское хозяйство и связанные с ним проблемы.

Ключевые слова: интенсивный, население, окружающая среда, ирригация, сельское хозяйство, экосистемы, фундаментальные знания, экоэффективность, потеря водоносных горизонтов.

Annotatsiya. Sanoat inqilobi va “yashil inqilob”dan keyin dehqonchilik usullari intensivlashdi, natijada hosildor ekinlar va oziq-ovqat mahsulotlari yetishtirildi. Butun ekin maydonlarining qariyb yarmini tashkil etuvchi 700 million gektardan ortiq yerlar asosan boshoqli-don ekinlari yetishtirishga bag'ishlangan bo'lib, bu dunyo aholisining o'sishini ta’minladi. Ushbu dissertatsiyada qishloq xo‘jaligi va uning muammolari yoritilgan.

Kalit so’zlar: intensiv, aholi, atrof-muhit, sug‘orish, qishloq xo'jaligi, ekotizimlar, fundamental bilimlar, eko-samaradorlik, suvli qatlamning yo'qolishi.

In the future, meeting the demand for accelerated agricultural productivity will be more challenging due to ecological factors, global climate change, and the harmful effects of intensive farming techniques on nonagricultural ecosystems, posing a crisis in sustainability. About one-third of the world's land is under agriculture, with its sustainability largely influenced by the environment. Conventional farming practices are not sustainable for a growing population. The question is whether we can produce food and sustain the environment while feeding an increasing population.

Current systems may degrade natural habitats, leaving future generations to find sustainable solutions. This paper reviews the link between environment and agriculture and its impact on the environment. The environmental impact of agriculture is the impact of farming practices on ecosystems, varying based on farmers' practices and scale. Sustainable farming practices aim to reduce environmental impacts.

Despite efforts to reduce destruction and enhance eco-efficiency, the negative impact of animal agriculture remains a concern, with ammonia emissions from cattle waste. Experts use two types of environmental impact indicators: means-based, based on farmer production methods, and effect-based, considering the impact of farming methods on the system or emissions. Means-based indicators consider the quality of groundwater, while effect-based indicators consider the actual effects of the agricultural system, such as CO2 emissions or soil nitrogen content. Approximately half of the Earth's livable land is made up of pasture and crops, which serve as both a home and a food source for a wide variety of species. When agricultural practices are managed sustainably, important habitats can be preserved and restored, watersheds can be safeguarded, and soil and water quality can be enhanced. Around the world, 70% of the freshwater used by humans comes from agriculture. Many types of irrigation methods are used to divert a large portion of this water onto crops. Experts estimate that by 2050, water extraction may rise by an additional 15% or more in order to feed a burgeoning population.

The huge harvest yields required by such a big population are made possible by irrigation. Heavy irrigation has become economically necessary in many of the world's most productive agricultural regions, from the arid Mediterranean basin of Southern Europe to the Central Valley of California. The effects of this extensive diversion of freshwater are coming to the attention of both researchers and farmers. The loss of aquifers, river systems, and ground water downstream is among the most evident effects. Irrigation has a variety of additional detrimental effects, though. Irrigation-soaked areas may become soggy, which leads to anaerobic breakdown of the soil and poisoning of plant roots. Soils that have had water diverted may accumulate excessive salt, which is detrimental to plant growth. Increases in water evaporation brought about by irrigation have an effect on atmospheric moisture conditions, surface air pressure, and temperature. It has been established by recent studies that farmland irrigation affects rainfall patterns thousands of miles away in addition to the irrigated area. Additionally, irrigation has been linked. The largest industry in the world is agriculture. It produces approximately $1.3 trillion worth of food annually and employs over one billion people. Approximately half of the Earth's livable land is made up of pasture and crops, which serve as both a home and a food source for a wide variety of species. When agricultural practices are managed sustainably, vital ecosystems can be preserved and restored, watersheds can be protected, and soil and water quality can be enhanced.

However, unsustainable behaviors have detrimental effects on both the environment and people. Sustainable resource management is becoming more and more important. The growing global population is driving up demand for agricultural commodities.

Agriculture is one of the most significant global conservation frontiers because to its close relationships to human communities, the global economy, and biodiversity. Many farming practices—such as burning fields and using gasoline-powered machinery—are significant contributors to the buildup of greenhouse gases in the atmosphere. The Food and Agriculture

Organization of the United Nations (FAO) contends that the livestock sector alone is responsible for 18% of all greenhouse gas production. Additionally, clearing land for agricultural production is a major contributor to climate change, as the carbon stored in intact forests is released when they are cut or burned.

Conclusion. Primary economic activity is highly dependent on the weather and environment, particularly agriculture, hence climate change has a big effect on this industry. As the effects of climate change continue to increase and put strain on the agricultural sectors and lives of many industrialized and developing countries, it is imperative that the regions and communities that are most at risk at the subnational level be identified and given priority. This summary offers some fundamental knowledge about what is now known about society, agriculture, and climate change. It conceptualizes the book portion and presents the ideas of climate change and agriculture. This chapter examines the pertinent research on how climate change affects agricultural productivity and attempts to give a comprehensive worldwide summary of all important.

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