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Improving the design of landscaped land for irrigation of drylands with the help of natural rainfall. (in the case of Navoi region).

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Annotation: Landscape planning opportunities in the field of agricultural land use are defined by legislative acts at the state level. Such legislative acts include the Land Code of the Republic of Uzbekistan. It defines land relations as land use and protection relations, ensuring equality of land use and protection concepts in all articles of the Land Code. Nevertheless, the use of landscape planning methods in land planning allows for the correct assessment of the available land potential and functional zoning. In this case, it is appropriate to carry out regionalization by separating lands of different nature, taking into account their differences in quality.

Key words: landscape, relief, layer, anthropogenic, drop, rain, plant, myogen, shell, water, soil, lithogen, biota.

A natural landscape is a region-specific combination of climate, topography, vegetation, and soil characteristics. The science that studies the laws of such a combination is landscape science. It is the science of the landscape shell of the earth and its natural elements (natural-territorial and natural-anthropogenic complexes). Along with the concept of "landscape shell", the concepts of natural-territorial complex (THM) and landscape have taken the main place in classical landscape science. THM is defined as a collection of interrelated natural components (myogenic bases, air climate, water, soil, flora and fauna) in the form of regional compounds at different levels. To date, the concept of "landscape" is interpreted differently. The main thing is to understand the harmony of the landscape with nature, unity, as well as the landscape as a structural element of the landscape shell of the earth, including various rules.

Today, it is accepted to group them into three small systems: - geoma - inorganic natural components: lithogenic bases (the upper part of the earth's crust and the relief of the earth's surface), air mass around the earth, natural waters; - biota - flora and fauna; - soil-intermediate or biocomposite (organomineral) subsystem. Each component has its own characteristics. Usually, material, energetic, and informational are separated separately. The exchange of matter and energy between its components and parts is based on the interaction and connection of the geospheres that make up the geographic crust and ensure its development. This exchange is in the form of circulation of matter (for example: circulation of water, circulation of chemical elements, biological circulation, etc.).

Landscape planning options in the field of agricultural land use are defined by state-level legislative acts. Such legislative acts include the Land Code of the Republic of Uzbekistan. It defines land relations as land use and protection relations, ensuring equality of land use and protection concepts in all articles of the Land Code. Nevertheless, the use of landscape planning methods in land planning allows for the correct assessment of the available land potential and functional zoning. In this case, it is appropriate to carry out regionalization by separating lands of different nature, taking into account their differences in quality. In this case, the legal regime of lands is determined by the fact that they belong to one or another category, of course. After that, some issues of landscape ecology can be considered. These issues are inextricably linked with practical land planning and can be used in landscape planning at the local level, that is, on a separate agricultural enterprise. The cultural landscape of any country is formed as an agricultural landscape, primarily related to the organization of territories. Landscape planning at the local level is inextricably linked with land planning, because in the process of land planning, a certain order is established on the ground, the proportions of the elements of agro-landscapes and their interdependence are determined. Therefore, the landscape plan at the local level should be manifested as an ecological edge of land formation, that is, taking into account the ecological interdependence between the changed components of nature and the elements of agro-landscapes with the help of the Tool that forms ecological organizers that balance the environment of the place. will be

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increased and their goal-oriented coordination will be carried out. The system of land management activities, which determine the composition of agrolandscapes, was developed for many years without conducting the necessary environmental assessment. This, in turn, led to great negative environmental consequences. These consequences on nature are direct (reduction of agricultural land areas, increased erosion processes, reduced productivity) and secondary effects (degradation of soils, degradation of vegetation cover, water and air pollution , birds and animals decrease). All this ultimately - according to the law of feedback in ecological systems - affects the quantity and quality of agricultural products. The process of applying controlled amounts of water to plants at intervals when watering is needed. Irrigation helps grow agricultural crops, maintain landscapes, and plant disturbed soils in dry areas and during periods of below average rainfall. Irrigation has other purposes in crop production, including protection from frost,[1] suppression of weed growth in grain fields,[2] and prevention of soil consolidation.[3] In contrast, agriculture that depends only on direct rainfall is called rainfed. Irrigation systems are also used for cooling livestock, dust suppression, sewage disposal and mining. Irrigation is often studied together with drainage, which is the removal of surface and underground water from a given area.

Picture 1

Irrigation was used as a means of manipulating water in alluvial plains by the Indus Valley Civilization, whose use is thought to have begun around 4500 BC and dramatically increased the size and prosperity of their agricultural settlements.[6] The Indus Valley Civilization developed modern irrigation and water storage systems, including artificial reservoirs at Girnar dating to 3000 BC and an early canal irrigation system c. 2600 BC. Large-scale agriculture was practiced with an extensive network of canals used for irrigation. Farmers in Mesopotamia used simple irrigation from the third millennium BC.[8] They developed perennial irrigation, regularly watering crops during the growing season by coaxing water through a matrix of small channels formed in the field. [9] The ancient Egyptians practiced using basin irrigation to flood areas of land surrounded by dykes when the Nile overflowed. The floodwaters remained until the fertile sediment lay down until the engineers diverted excess sediment from the watercourse.[10] There is evidence of the ancient Egyptian pharaoh Amenemhet III in the Twelfth Dynasty (ca. 1800 BC) using a natural lake in the Fayyum oasis as a reservoir to use the excess water during the dry season. The lake swelled every year from the floods of the Nile.

Picture 2

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Ancient Irrigation Works Sri Lanka had one of the most complex irrigation systems in the ancient world, the earliest dating back to 300 BC during the reign of King Pandukabhaya and continuous development over the next millennium. In addition to underground canals, the Sinhalese were the first to build entirely artificial reservoirs for water storage. Most of these irrigation systems are still intact in Anuradhapura and Polonnaruwa, thanks to advanced and precise engineering. The system has been extensively restored and expanded[by whom?] during the reign of King Parakrama Bahu (1153–1186 CE)

In annual sprinkler or sprinkler irrigation, water is piped to one or more central locations within the field and distributed by high-pressure sprinklers or sprinklers. A system installed on permanently installed risers using sprinklers, sprinklers, or guns is often called a fixed irrigation system. Rotating high pressure sprayers are called rotors and are driven by a ball drive, gear or impact mechanism. Rotors can be designed to rotate in a complete or partial circle. Arms are similar to rotors, except that they operate at very high pressures, typically 275 to 900 kPa (40 to 130 psi) and flows of 3 to 76 L/s (50 to 1,200 US gal/min), typically crack diameter from 10 to 50 mm (0.5 to 1.9). Guns are used not only in irrigation, but also in industrial applications such as dust suppression and access.

Sprinklers can also be installed on moving platforms connected to a water source with a hose. Self-propelled wheeled systems, certain sprinklers can irrigate unattended areas such as small farms, sports fields, gardens, pastures and cemeteries. Most of them use long polyethylene pipes wrapped around a steel drum. The sprayer is pulled across the field as the tubes are wound around a drum powered by irrigation water or a small gas engine. The system shuts off when the sprinkler returns to the coil. This type of system is known to most people as a "water bucket" mobile irrigation sprinkler, and they are widely used for dust removal, irrigation, and discharge of waste water to the ground.

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