Journal of Positive School Psychology http://journalppw.com
2022, Vol. 6, No. 10, 2211-2219

Effectiveness Of Technologies Based On Cluster Power In The Strategy Of Eliminating The Ecological Crisis Of Our Agrosphere

Abdullaev M[1*]., Jumaev Sh.M.[2]

[1]*Candidate of veterinary sciences, associate professor, independent researcher*

[2]*Termiz Institute of Agrotechnologies and Innovative Development, Doctor of Philosophy (PhD) in Agricultural Sciences, Associate Professor, etc.*

***Corresponding author:** Abdullaev M

[*]*Candidate of veterinary sciences, associate professor, independent researcher*

Abstract

The cluster is considered as integral consisting of interdependent separateness. It is believed that the formation and development of a cluster is a general pattern of the formation and development of the existing one. The structure of the ecosystem is illuminated in the light of the structure of the cluster, the balance of the ecosystem is accepted as the balance of the cluster divisions. It is proved that environmental crises are a destabilized ecosystem structure as a cluster. The ability of soil organic matter to create vertical salinity drainage has been established. The history of the Aral crisis is described in an optimal light based on organic farming in preventing its consequences. The essence and scale of the country's environmental crisis in the light of the destabilization of its structure as a cluster are analyzed. As a cluster of agricultural technologies that can withstand the cluster of causes of environmental crises in the agricultural sector, the creation of a diversified small organic agricultural enterprise on an industrial basis is proposed.

Key words: cluster, ecosystem, agrosphere, biocenosis, biosphere, vertical, horizontal, drainage, erosion, phytocenosis, fauna, chicken coop, vineyard, hayfield, pasture, greenhouse, biogas, beekeeping, introduction, ecoengineering.

Enter. Ten thousand years of farming and animal husbandry transformed the natural ecosphere into an agrosphere, dramatically increasing plant productivity and animal productivity. The first green revolution took place.

The economic power of mankind has increased, demographic explosion, that is, the state of overpopulation has arisen, and extensive development based on the continuous expansion of the agrosphere has been relied upon.

At the beginning of the 19th century, the theory that soil fertility in the agrosphere cannot be permanently reduced was created by T. R. Malthus (16) and is being proven in the rapid desertification all over the world.

Mankind was able to continue its development by inventing mineral fertilizers. A second green revolution has occurred. However, it has not stopped soil erosion (12,20) and extensive development continues. Today, in the countries of South-East Asia, there are reports that the forests are being set on fire, and the land is being cleared for agriculture, as it was ten thousand years ago, causing terrible fires (media). We are also actively moving the development of new lands to the borderlands of dry land and pastures, which make up two-thirds of our country.

In recent years, the mass media has repeatedly published the information that 200 million hectares of land in the world are becoming unusable per year. In our country as well, our fields and pastures, which are left to be plowed without sowing, are expanding.

Since the 80s of the last century, the fundamental and applied research on ecologically balanced agricultural strategy has been gaining momentum (15,20,21,27), while in the last ten years consistent research on this problem has been conducted (2,3,4,5, 6), we cannot apply it to our practice. We want to say that the relevance of the problem is not in science, but in our attitude to science. Today, neither our science nor our education in this field is based on theory, i.e. fundamental sciences (1,7). In order to justify such a sharp objection, we have to analyze our current agro-technologies from the point of view of fundamental sciences.

In recent years, the problems of climate change (9,28,29), freshwater scarcity (10,11,19,35) and biodiversity crisis (38) have been added to the problem of soil erosion. Although each of these is an urgent problem in its own way, by today, they have strengthened each other and formed a cluster of problems at a level that is difficult for us to imagine. We want to say that unless we create a

cluster of technologies against a cluster of problems, we will not find a solution to the environmental crisis of our agrosphere.

The goals and objectives of the research.

Our primary goal is to clarify the cluster concept and assess the level of compatibility of our current agrotechnologies with the ecologically balanced agricultural strategy. In order to clarify our understanding of the cluster, we considered the analysis of data on the issue of fundamental sciences.
Our next goal is to evaluate how clustered and ecologically balanced our technologies (2,3,4,5,6) are, and put them into practice.
In order to achieve the set goal, we have undertaken the task of mobilizing science, the intellectual potential of our scientists, the efforts of our government, and all the financial power of our enterprise.
Creating a cluster of technologies capable of eliminating the cluster of problems causing the ecological crisis of our agrosphere, and achieving a balanced agricultural strategy was the main task.

Object and methods of research.

Research has been conducted since 2009 at the Chimkurgan Poultry Farm in Ishtikhon District, Samarkand Region. The enterprise is located in a stream at the foot of the mountain. It has three henhouses each designed to feed 2-2.5 thousand chickens in an industrial way, one chicken house for 2.5 thousand chicks, one warehouse for storing and preparing 300 tons of feed, one artesian well, 5 hectares of pasture converted into a hayfield, half a hectare of drip There is a vineyard based on irrigation (15.27), a chicken house trailer, and a two-story greenhouse with a biogas digester inside. Daily and annual productivity and profitability of chickens are evaluated. The phytocenotic parameters of the hayfield are studied in order to establish beekeeping and beekeeping. Creation of a herbarium for the study of hayfield phytocenosis has been started. Since the vineyard is one year old, only vegetation indicators are being monitored. The type and amount of medicinal plants growing in the hayfield, and the number of ant families are being monitored. An experiment was conducted to determine the water efficiency of the land saturated with manure. An experiment was conducted on the vertical drainage of saline leachate due to the fact that the manure keeps the moisture in the lower layers of the earth. In order to increase the productivity of the hayfield, ecological engineering based on the introduction of the plant "Sharq Ilonchopi" was attempted. Testing of vertical drainage of land salt washing with manure has been started on the saline land on the coast of Akdarya. A cooperation agreement was concluded between Samarkand Veterinary Medicine, University of Animal Husbandry and Biotechnology (Samarkand Agricultural Institute), Ishtikhon district administration and the enterprise. Other farms and vineyards created by farmers in our region are also being studied. Information on flood formation and flow in the area is being collected.

Research results and their analysis.

Since the approach to agrotechnologies from the point of view of the concept of cluster is becoming popular in recent years, we started to analyze the term cluster and the nature of the objects covered by it. Because in our view, our current understanding of the cluster, as well as our reliance on the foreign expert Michael Porter (32), is based on a one-sided vector, which is actually nothing more than the agro-industrial complex of the former Soviet Union (ASK).
The term cluster is derived from the English language and means a unit formed from functionally related individuals. Mutual solidarity is expressed in increasing the stability of individuals. From this point of view, if we look within the framework of the high school program, it becomes clear that the atoms of different chemical elements formed from different combinations of certain elementary particles, that is, electrons, protons, and neutrons, are also different clusters. This process is called physical evolution in the high school curriculum. In the same way, different molecules formed from the combination of atoms of different chemical elements, and the first living particles, i.e. cells, formed from their combination are also clusters. We want to say that without clustering and its rise, life would not have appeared on Earth. This is what we call chemical evolution. It is now clear that the formation of various biocenoses, biogeocenoses, and ultimately the biosphere is clustering and its rise from the various cell, that is, organisms. In the high school curriculum, this is called biological evolution. Here we see that it is crucial to remember that any ecosystem is a cluster and its stability depends on the harmony, that is, the mutually reinforcing balance between the individuals involved in its formation.
The core of the ecological crisis in the world's agrosphere is the violation of the main law of natural development, clustering and its growth.
We have seen that clustering and its progression grows from the bottom up, like a tree. Therefore, only when the farm itself is a cluster, it will have the capacity to reach the next stage of clustering.

This is exactly what the implementation of the Presidential Decree announced on October 9, 2017, requiring all farms to be multi-sectoral by January 1, 2022, implies.

At this point, it is necessary to clarify the contrast between the cluster and the approach to clustering in developed countries and ours. The fact is that in them, including in South Korea, clustering is formed as the creation of cohesion between a series of networks. For example, the three technologies of apple cultivation, processing and sale are assumed to support each other and are called an apple cluster.

As well as grain cluster, cotton cluster, tomato cluster and hokozo. In this approach, each technology is not required to be clustered itself, and therefore does not have cluster power. Although it increases efficiency due to the fact that it implies the extreme specialization of family business and its industrialization, it cannot create a basis for further growth of clustering in the future. This is a technocratic approach to clustering. In nature, this is manifested as the phenomena of idioadaptation, ideosyncrasy, which puts the process of formation of a new species, that is, evolution, into a dead end. Just like a branch of a tree that can no longer branch. This approach to clustering is nothing more than the creation of agro-industrial complexes (APCs) during the time of the former Soviet Union. Although this approach continues throughout the world, because it has only one vertical vector, it remains as shallow as a seedling that only grows upward in its pursuit of light. The technologies we are recommending will provide the foundation for development as they are primarily based on horizontal integration. This is the fundamental innovation of our research. As we explained above, the growth of clustering in the sequence of atoms, molecules, cells, biocenoses, due to the fact that each of them is a cluster, all stages of evolution are still increasing without stopping, that is, the main law of the development of existence is working.

Our approach to clustering provides a framework for high-level clustering as it leverages the coherence of adjacent singularities. Our approach relies on the basic law of natural development, as it involves the use of both horizontal and vertical vectors of clustering.

Based on this, in order to justify how clustered our farm is, we began to determine and evaluate what kind of individuals should be formed as a cluster of any biocenosis, and how the balance between them was ensured.

According to the science of ecology, any biocenosis, that is, a natural ecosystem, achieves development due to the balance of three mutually reinforcing elements. In science, these are called producers, consumers and reducers. Producers create organic substances from inorganic substances. We know that these are green plants with the power of photosynthesis. We also know that consumers are those who create their own from the organic matter of others, i.e. animals. And finally, we also know that reductants are microorganisms that decompose organic matter, that is, plant and animal remains. We also know that it is humus that provides soil fertility and creates a foundation for ecosystem development.

Such an approach to the issue allows Charles Darwin's evolutionary theory to form an agricultural strategy based on the procedures of creation and creation of biocenoses and agrocenoses.

We know everything, but we blame cotton for yielding 15 centners per hectare. In the vineyard, which has been yielding 300-400 centners per hectare, the indicator of 150-200 centners has been considered an achievement by both our farmers and experts.

At this point, it is impossible not to remember that Sh.M. Mirziyoev, when he became the governor of Samarkand region, released the manure that had been accumulating in poultry factories for years and even that was still accumulating in the complex intended for feeding forty thousand Karakol sheep, which was closed 40 years ago, to the agricultural fields of the region.

Despite the fact that the core of the ecological crisis of the agrosphere is the decrease in the amount of humus in the soil and its solution is to establish organic agriculture (12,17,26,27,36), the technology that provides a solution to the problem has not been created. Because for this, a technology that provides at least 30-40 tons of manure per hectare per year is needed (17).

Since there is no annual calculation of the manure coming out of existing poultry and livestock enterprises and farms, it is not determined how much it corresponds to each hectare.

Our scientific and practical research (2, 3, 4, 5, 6) that we have been conducting for the last ten years has shown that the solution to the problem lies in the creation of industrialized multi-sectoral, that is, clustered farms. Only then each farm will be able to provide itself with 30-40 tons of manure per hectare.

Considering that the amount of nitrogen and phosphorus in poultry manure is 3-4 times higher than that of mammals (17), we can see that 10-12 tons per hecrate is enough. According to the fact that two thousand chickens release 45-55 tons of manure per year, it is clear that they are capable of saturating 4-5 hectares of land with manure, and we found that for two thousand chickens, a hen house

and a trailer-built biogas digester, and two square meters of land for a greenhouse are enough (3). In this technology, the cost of manure transportation is eliminated.

Transportation of mixed fodder for feeding chickens requires 5-6 times less transportation costs than transportation of fodder for livestock. At this point, if we take into account that poultry consume three times less food units for growth and fattening per kilogram than mammals, it becomes clear that the financial efficiency of our proposed technology is 5-6 times higher than the current one, and it is able to achieve an ecologically balanced agricultural strategy.

Our current agro-technologies force us to put more emphasis on mineral fertilizers and to feed plants from the leaves by way of suspension. Soil erosion is increasing. In recent years, microbiological preparations such as "Bionitrogen", "Biofertilizer", "Mers", "Baikal M1" have been consistently promoted to increase soil fertility. In other words, we are busy inventing leaven for non-existent dough (media). We should know that nature itself creates yeast from the end of the dough and that it is the most powerful, and the natural development of all biocenoses is based on this.

It is true that after the harvest of these preparations, all the remains of the plants are crushed and left in the field or mulching is very effective. We are not leaving anything in the field.

Given that salinity is the leading indicator of soil erosion of irrigated lands in our country and that it is accelerating, our proposed technology had to determine how to influence the solution of this problem.

Our research has shown that our technology is the solution to this problem. The fact is that for 3-4 years, manure was collected in the barn at the foot of the chicken house and taken out to the fields. He had to collect the manure elsewhere. The previous place for collecting manure lay dormant during the summer for two years. In order to build a greenhouse, this tree had to be removed in the summer. After two meters of excavation, we came across a muddy layer about one meter thick. Below it, we saw that the soil dries up again. This is based on the fact that manure holds 20 times its own weight in moisture (31). This phenomenon clearly shows that precipitation moisture is trapped by organic matter, preventing it from returning to the surface of the earth. If organic fertilizer prevents the return of moisture to the surface of the earth, then it cannot prevent the return of dissolved salts. We accepted this phenomenon as the vertical drainage of soil salt leaching and began to test the vertical drainage of soil salt leaching using manure on the saline land on the coast of Akdarya. The current drainage is only horizontal, and the salt that is being washed is pushed into the ditches on the side. Salt is poured on the surface of the earth.

In order to determine that vertical drainage is really a law of nature, we turned to the examples in the history of the biosphere to clean the surface of the Earth from salt and ensure the formation of soil.

According to high school educational programs, 250 million years ago, at the end of the Paleozoic era, due to the collision of the Earth's plates, the Pamir Himalaya mountain ranges rose and the ocean covering our territory retreated to the Atlantic and Pacific oceans. Only Arol and Caspian were trapped without escape. Our dry land is covered with salt mud and silt rich in organic matter. Millions of years of precipitation have absorbed the moisture into the ground, bringing down salt and organic matter. During dry seasons, organic matter resists evaporation due to the property of retaining water in them, and ensures the gradual movement of moisture and salts dissolved in it to the lower layers of the earth, that is, absorption of water from evaporation increases. As a result, the surface of the land became moist, the soil was formed, and the biocenosis was formed and developed.

We had to clarify a number of new issues when we calculated the application of this technology, which is capable of increasing humus in the soil and leaching salt by vertical drainage at the same time, to all our irrigated lands. The fact is that we have to build about a million chicken houses for two thousand chickens for every 4-5 hectares of our existing 4 million hectares of irrigated land. Although this corresponds exactly to the implementation of the State program of each family entrepreneur in agriculture, it raises a number of questions.

The fact is that two billion chickens are raised in a million henhouses, each of which has two thousand chickens. Considering that each hen lays 300 eggs per year, this will produce 600 billion eggs per year. If we assume that the development of any production is determined by the sale of the produced product, we have to find a solution to this problem as well. Our calculations showed that the market economy itself will solve the problem. For example, the price of honey makes up only 30% of the income received in beekeeping in the USA. The rest comes from pollination by bees in gardens (Media). In our eyes, our poultry has the same power. Because stopping and gradually eliminating the erosion of our soil is many times greater than any income of poultry farming. Therefore, even if we reduce the price of our poultry products by several times, we will be able to increase the profitability of the farm. Our sharp reduction in

product prices gives us the opportunity to increase our export potential. In addition, there is an opportunity to ensure the stability of the industry's profitability by changing the ratio of egg and meat production sectors in accordance with market requirements. Considering that organic agricultural products are more expensive, the confidence in the prospect of our recommended technology increases even more.

Another advantage of our proposed technology is that it can overcome the weaknesses of monoculture farming. Grain and cotton, some of the world's most demanding crops, require rotation with legumes to increase soil nitrogen. Our proposed technology is able to increase the amount of nitrogen and phosphorus in the soil to the required level, allowing full use of the power of grain and cotton monoculture (23). At this point, we have to admit that mankind has not been able to create a more intensive garden than a cotton garden. Because we had to mention that 120,000 bushels of perennial trees are growing in one hectare of cotton field. Cotton farming is 100 percent mechanized. No need for storage or refrigeration. Cotton creates added value and jobs in 4-5 stages of processing.

Cottonseed oil, cottonseed oil, and sheluka are considered limiting products for our food security (24,25). In addition, we should not forget that grain and cotton are the crops that feed and clothe all mankind. It is not for nothing that cotton is planted among 18,000 hectares of walnut groves in China's Guangzhou province (media). We see that textiles are playing a decisive role in the industrialization of remote areas, i.e. urbanization, which is being carried out at a rapid pace in our country. The transformation of each farm or family into an industrialized multi-sectoral enterprise, i.e. clustering, eliminates the seasonality of labor and creates a unique form of urbanization, labor intensity increases several times (8).

Farms in the US are divided into five categories: the smallest, small, medium, large and large, and small, that is, family farms, make up 85%. Less than 13% of the U.S. agricultural land is planted to fruit and vegetable crops (22). In South Korea, 96% of farms are family owned.

Because our proposed technology relies on the power of the cluster, it will ensure that the effects of the Arol tragedy are gradually overcome. Because current technologies could not save our agrosphere from crisis even when Siberian waters were introduced. In addition, the arrival of Siberian waters is not without possibility.

The fact is that the project to bring 2% of the water of the Ob river to our region was perfect. 50 institutions and organizations participated in its creation. According to the project, 40,000 km3 of water per year from the Irtish, a tributary of the Ob river, was planned to be transferred under the Syrdarya and poured into the Amudarya. However, due to the political and economic collapse of the former Soviet Union in the 1980s, the project fell through. Despite this, the project is not completely excluded from the agenda of scientists. For example, on January 3, 2013, the director of the Institute of Hydro-Pipeline of the Russian Federation made a statement that 100 billion dollars will be required for this project (media).

There is another reason why the project remains on the agenda. The fact is that the length of the Ob River is 4,500 km, and the starting point is only 180 m above the point where it flows into the Arctic Ocean. Calculation of no slope. On top of that, the river flows through lowlands that are 300 km wide and full of cities. That's why underground water is high. The rising sea level due to climate change is making the situation worse. In addition, information about the presence of a paleoocean in the Ob river bed is emerging.

As for the ecological crisis of drylands and pastures, which make up two-thirds of our country, it is first of all the responsibility of generations. Because if the environmental crisis related to the Arol tragedy in our irrigated lands falls on the responsibility of the previous regime and generations, we will have to take responsibility for the deepening ecological crisis in our dry lands and pastures.

Because this crisis is even causing secondary salinization on our borders, which is completely unrelated to the Arol tragedy.

Singleness, i.e. non-clustering, continues to dominate especially in agriculture in our arid lands and cattle breeding based on pastures, deepening the ecological crisis of our agrosphere.

From the very beginning, we should make it clear that regardless of whether you raise sheep and goats, add horses or camels to the pasture, the network remains one, that is, grazing. We cannot accept it as a cluster. Pastoralism alone is a technology of a nomadic way of life, relying only on extensive development. No matter how much you increase pasture productivity, the steady increase in population cannot reduce the urgency of the problem. That is why we are forced to increase the number of hooves kept in the pasture every year. For example, while the total area of our pastures is 11.5 million hectares, we feed more than 23 million sheep and goats. This indicates that 4-5 times more than the norm is being fed. As a result, the phytocenosis of the pasture was destroyed year by year, and only 50-60 species of 250-400 plant species were preserved (Media). Our recently

adopted pasture legislation does not even specify this standard.

We found that in heavily grazed areas of the pasture, a plant that is highly resistant to graze is becoming more dominant. Disruption of the meadow phytocenosis reduces the potential of reductants to the point of stopping the accumulation of humus in the soil. We also found out that due to the lack of nitrogen in such soil, lichens (30) growing in the tundra, which are able to absorb atmospheric nitrogen, are covering the pasture surface.

As a result of the sharp impoverishment of the pasture phytocenosis, we note that the wind and water erosion of the soil is increasing, and the formation and flow of floods is becoming more dangerous year by year. In particular, the sharp reduction of humus in the pasture soil almost destroys its ability to retain moisture, in addition to weakening the vegetation of ephemeral plants, it also delays it. Because we know that one of the unique life-giving properties of water is that it is the liquid with the largest internal heat capacity. Therefore, the humus in the soil absorbs the heat of the moist spring air, acts as a thermostat, and ensures the earlier recovery of the earth and the earlier start of ephemeral vegetation. The improvement of the ephemeral vegetation, in turn, enriches the source of nutrients and moisture for the plants of the phytocenosis.

This unity also indicates the clustering of the phytocenosis. We are convinced of this in our observations of the phytocenosis of our pasture, which is being converted into a hay field.

In addition, we noted that there is a positive correlation between ephemeral vegetation and ant families in our protected pasture. It was found that the distribution of ephemeris around the anthill is 3-4 times larger. This showed that the biocenosis acquires a cluster appearance due to the harmony of the pasture phytocenosis and fauna. In short, to ignore the fact that the development of biocenoses and its growth is organized by clustering. it is impossible not to expose any agrosphere to ecological crisis.

When we analyzed agro-technologies in our field science and practice, we found out that the main problem lies in this inconsistency. We found out that the progress of science and education is based on the law of clustering and its growth (1). We believe that our proposed technology will create a unique view of urbanization (8) in the whole world and will lead in the implementation of mobilizations aimed at the industrialization of agrarian areas of our government.

For 60 years, our science has been trying to prove scientifically that it is possible to find a solution to the problem only by increasing pasture productivity, that is, it is possible to ensure the prosperity of farms only by grazing alone (18,33,37). Our argument has reached such a level that despite our assessment of the scientific-practical work of the Institute of Karakollik and Desert Ecology as ecological diversion (4,5), they are refusing to have an open discussion. The crisis is deepening. The wind and water erosion of the soil covered with non-ephemeral ruderal plants by plowing the land and calling it phytomelioration based on monoculture technology is increasing.

At the same time, in our company, we gave up grazing and showed that the productivity of our hay field has reached 40-50 centners per hectare, and instead of 2.5-3 hectares required for grazing, 0.2-0.3 hectares of hay field is enough for one head of sheep. In addition, we saw the possibility of beekeeping in the hayfield and the emergence of a natural plantation of medicinal plants. The introduction of ``Oriental Snake Grass'' has shown that ecological engineering can dramatically increase pasture productivity.

We have found out that it is possible to restore the natural phytocenosis of the dry land, which has been abandoned without the cultivation of overgrazed pastures, with the help of agrotechnology based on polyculture (14). We found that by restoring the ephemeral power, it is possible to eliminate the need for clearing pastures and wetlands and eliminating the need for lichen growth. A technology based on minimum tillage and protection with the help of ephemeris was developed for the vineyards being established on the mountain slopes.

If the aforementioned sectors are clustered and pastures are completely abandoned, the family view of multi-sector farms has shown that it is able to increase the economic efficiency and maintain environmental prosperity in our pasture borders and in dry lands. We noted that phytocenosis biodiversity (4,5,6), which ensures the stability of the pasture ecosystem, increases.

This year's United Nations report stated that overgrazing is causing climate change on our planet.

As for our dry land, which until now has been mainly grain-growing, its boundaries are constantly being expanded by planting saffron, safflower, saffron, and medicinal plants. The land is plowed, ephemerals are destroyed, and grass is destroyed. As a result of the decrease in the fertility of the soil of the newly developed lands, the areas abandoned for plowing are expanding. Plows are being covered with ruderal plants, which are foreign to these lands. Biodiversity is declining. Wind and

water erosion of the soil is increasing, and the formation and flow of floods is becoming dangerous. Artesian wells are being dug in arid lands, and horticulture based on drip irrigation is expanding. In this case, the reservoir of erosti water is completely ignored. It is not taken into account that the reserve of ground water in our region is 60 thousand km3 and more than half of it is used. For example, we found that the water in our artesian well, which was dug in 2011, dropped to 7 meters. We behave as if the sea lies beneath us. Since drip irrigation is based on feeding with mineral fertilizers, the nutrients do not gradually reach the lower layers of the soil, and Russian scientists have been ignoring for 30 years that such technology can lead to the gradual drying out of trees from the tips of the trees in the North Caspian wetlands (13). . In the former Soviet Union, we do not give enough credit to our own experience, which shows that only deciduous trees, that is, vines, can produce good results in dry lands. Even when we introduced drip irrigation on our semi-arid land with only mineral fertilizers, secondary salinity started after two years.

The growing attention to the creation of vineyards on fertile lands and slopes of mountains, the creation of another 12,500 hectares on top of the existing 82,500 hectares in Samarkand region alone (AAV) calls for the creation of agrotechnology that ensures ecological balance. We have proven that our technology under test is able to find a solution to this problem.

Since both our pastoralism and dry farming are based on the same sector, they are causing an ecological crisis that is deepening as the economic efficiency is low.

That it is very dangerous to injure the land in arid regions; knowing that it is not for nothing that the death penalty in some Far Eastern peoples served to preserve the tundra (30), we look indifferently at the fact that some of the inhabitants are attacking the mountains with bulldozers and scrapers.

According to the research of geophysicists, precipitation in our region will increase 1.5 times by 2030, and our harsh continental climate will turn into a subtropical climate (9). This is a positive gift. However, our current agrotechnologies on the mountain slopes may turn this gift of climate change into a tragedy. Our recommended technologies ensure water conservation by ensuring the ecologically balanced strategy of creating vineyards on mountain slopes and arid plains. Because we confirmed in the experiment that the tomato seedling is watering only once in the soil saturated with manure at the level of the hill, and it blooms and bears fruit all year round.

The fact that our vineyard created on the slope of the countryside is based on feeding with organic fertilizers, planting seedlings without plowing, and minimal processing has ensured that we start drip irrigation a month later than others, and use 2-3 times less water. Considering that the roof of all the buildings in our enterprise is 1500m2, we calculated that we can collect 450 tons of water according to the precipitation in our region of 300 mm per year. We are encouraged to do so by the information that 7% of drinking water consumed in China is rainwater (media). This means that 100 million people in China are consuming rainwater. 130-160 tons of manure coming out of three chicken coops and 100-110 tons of juice released after the biogas digester are intended to be directed to drip irrigation.

We noted that the surface of dry lands and pastures is covered with phytocenosis of ephemeris and ephemeroids biodiversity, which hinders the growth of sorghum plants and due to nitrogen deficiency, there is no need to cover the land with lichens.

In short, with the power of an industrialized multi-sector cluster, our technology provides both economic and environmental prosperity. Today, the fully functioning poultry industry alone produces products worth 350-400 million soums per year and ensures ecological development. It is estimated that the gradual start-up of other branches will increase the volume of product production by 2-3 times.

Literatures

[1]. M. Abdullaev, "Tree of Enlightenment", "Science and Life", 1998, No. 4.

[2]. Abdullaev M., Alternative technology to prevent desertification in arid regions. "Zooveterinaria", 2009, No. 9, pp. 5-9.

[3]. Abdullaev M., Alternative technologies to prevent desertification in arid regions. "Zooveterinaria", 2010, No. 3, pp. 8-9.

[4]. Abdullaev M., Roziqulov R., Diversification-based technology of balanced agricultural strategy. "Zooveterinaria", 2013, No. 3, pp. 6-11.

[5]. Abdullaev M., Roziklov R., Abdullaev Z. Industrialized multi-sectoral small business-based technology to eliminate pasture and arable land degradation, "Zooveterinaria", 2017, No. 7, pp. 45-47.

[6]. Abdullaev M., Multi-sectoral small business-based technology of ecologically balanced agricultural strategy. "Zooveterinaria", No. 8, pp. 39-40.

[7]. Albert Sasson, “Biotechnology: “Achievements and Hopes”, Moscow, “Mir”, P.251-254.
[8]. Apostolov E. Michkov Kh., “Urbanization”, Concentration of production as an objective pattern of development of productive forces. Moscow, "Medicine", 1977, pp. 13-14.
[9]. Velichko P., Consequences of global warming. Possible future of land landscapes. “Nature”, 1992, No. 12, pp. 8-16.
[10]. Glazovsky N.F. Aral crisis “Nature”, 1990, No. 10, pp. 10-20.
[11]. Glazovsky N.F. Aral crisis “Nature”, 1990, No. 11, pp. 91-98.
[12]. Golubev F. Soil science with the basics of geobotany. Soil erosion and measures to combat it, Moscow, Kolos, 1982, p. 140-149.
[13]. Dushkov V.Yu., Olovyannikova I.N., Senkevich N.G., Biocenotic bases of forest reclamation development of saline lands in the semi-deserts of the Northern Caspian Sea, “Nature and resources”, No. 2-4, 140-149, Moscow, “Kolos”, 1988 .
[14]. Dzybov D.S., Sow the steppe, “Nature”, 1991, No. 9, P.59-63.
[15]. Kazakov G.I. Resource-saving tillage systems. Agrophysical indicators of the soil as a scientific basis for its cultivation. Moscow, VO, “Agropromizdat”, 1990, pp. 32-38.
[16]. Kemp, P. Arms, K. Introduction to Biology. Moscow, Mir, 1988, pp. 38-48.
[17]. Lozanskaya I.N., Orlov D.S., Popov P.D., Theory and practice of using organic fertilizers. Moscow, VO "Agropromizdat", 1987, pp. 25-36.
[18]. Makhmudov M.M., Agrobiological bases and technology for improving pastures in Kyzylkum. Abstract of Dr. dissertations, Tashkent, 1998
[19]. Minashina N.G., And again about the Aral Sea. Causes and scale of the crisis - the view of a soil scientist, "Nature", 1991, No. 10, pp. 19-22.
[20]. Mirkin B.N., Spiral of the history of the agrosphere, “Nature”, 1991, No. 11, P. 34-49.
[21]. Maurice E.B. Threat to water resources. “In the world of science”, 1989, No. 11, pp. 34-49, Moscow, “Mir”.
[22]. Nichols P et al. Agriculture and Agribusiness in the USA, 1993. Department of Economics, Texas A&N University, in collaboration with the US Department of Agriculture. College Station, Texas. 77843-2124 USA. pp. 1-8.
[23]. Power J.F., Follet R.F., Monoculture farming. “In the world of science”, 1987, No. 5, pp. 32-41, Moscow, “Mir”.
[24]. Pulyarkin V.A., Vlasova T.K., “Agro-resources and food problem”, “Nature”, 1991, No. 7, P.3-10.
[25]. Pulyarkin V.A., Vlasova T.K. “Agro-resources and the food problem”, “World in Science”, 1991, No. 4, pp. 24-28.
[26]. Pierre R. Crosson, Norman J. Rosenberg, Agricultural Development Strategies, “In the World of Science”, 1989, No. 11, Moscow, “Mir”. pp. 66-75.
[27]. Reaganold D.P., Popendik R.I., Parr D.F., Balanced agriculture, “In the world of science”, No. 8, 1990, pp. 60-67., Moscow, “Mir”.
[28]. Robert M. White, Great climate dispute, “In the world of science”, No. 9, 1990, pp. 6-14., Moscow, “Mir”.
[29]. Stephen G. Schneider, Changing climate, “In the world of science”, No. 11, 1989, pp. 26-36., Moscow, “Mir”.
[30]. Taksami Ch.M., Kosarev V.D., Ecology of ethnic traditions of the peoples of the Far East, “Nature”, 1986, No. 12, P. 28-32.
[31]. Tate R.Sh. Soil organic matter, S. 10-38., 1989, Moscow, Mir.
[32]. Tursunov H.Sh., Hikmatov H.I., Nurova N.I. Methods of increasing pasture productivity with the organization of a cluster system in cattle breeding. "Scientific and practical basis of development of desert pasture livestock and prevention of desertification". Proceedings of the international scientific and practical conference. S. 108-111. Veterinary and Livestock Development Committee of the Republic of Uzbekistan, Research Institute of Cattle Breeding and Desert Ecology. Samarkand-2019.
[33]. Shamsuddinov Z.Sh., Creation of long-term pastures in the arid zone of Central Asia. “Fan”, Tashkent, 1975, p.19-22.
[34]. Sharashova VS, Sustainability of pasture ecosystems. Phytocenotic bases for the sustainability of pasture ecosystems, 1989, pp. 202-214., Moscow, VO “Agropromizdat”, 1989.
[35]. Shiklamonov I.A., World water resources., “Nature and resources”, UNESCO Journal, vol. 27, no. 1-2, Pp. 81-90.
[36]. William D. Rukhelhaus, Balance as a global strategy., “In the world of science”, No. 11, 1989, Moscow, “Mir”.
[37]. Yusupov S.Yu., Ecologically stratified technologies of improving the productivity of Karakolchik pastures and its use, Tashkent, 2016.

[38]. Edward O. Wilson, Diversity of wildlife ., “In the world of science”, No. 11, 1989, pp. 110-116., Moscow, “Mir”.