ECOLOGICAL AND SOCIAL-ECONOMICAL OUTCOMES OF USING LIMITED RESOURCES

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Abstract. *Every natural complex (landscape) has its own some natural resources and the amount of natural resources are connected with geological, biological and geo-chemical compositions and long-developing stages of other conditions. As it is known there are two types of natural resources: limited and unlimited and it claims careful usage.*

Keywords: *landscape, natural resources, naturally restricted complexes, impoverishment of the soil, ecological balance, ecological and social-economical outcomes, stable strength of geo-systems against exons, endogens and techno-gens.*

The using ration of natural resources; extend of natural resources in natural limited complexes (landscape) are limited. Therefore, it is important to use them economically and carefully. In this case, we have to take into consideration the main features (especially soil erosion and humus decreasing in the soil). It should be realized that the natural resources should not be used more than their natural production or creation. If the usage of natural resources is increased, they will be wasted and the regeneration of natural wealth will reduce or due to falling down of the amount of natural resources sharply, the raw material providing system will be destroyed for a long time.

Impoverishment of natural resources; regular usage of natural resources, inapplicability regenerative measures in time (for example; melioration measures in farming, crop rotation) precipitate the degradation process. In Uzbekistan the impoverishment of soil in irrigated lands began in 60-80 years during single-cotton growing period. On those years, were applied a lot of mineral fertilizers (500 kg nitrogen, phosphorus and potassium per 1ha) and were used chemical-pesticides (54 kg for per ha) against cotton disease to increase the cotton harvest. The permanent application of mineral fertilizers and pesticides, poor-usage of crop rotation system led to decrease the amount of rotten minerals into 30-50% in 90 years, and due to disappearance of worms and other useful organisms in the soil it was difficult to restore the soil structure by natural way. This condition required to apply a lot of mineral fertilizers every year. The strength against soil pollution and regeneration of soil were diminished. This process was explained by losing soil regeneration legality.

In the result of elimination the weeds in irrigated lands, widely usage pesticides against plant disease, there gathered different pesticides in the soil, terrain and sub terrain waters and on the flash of plants. Falling chemical substances into the land water and consuming them by cattle poisoned them and damaged their meat and milk which might be used by men. Poisoned water by pesticides and mineral fertilizers cannot be used as drink water.

Ecological disbalance; all natural components and complexes are in balance in the nature. Every naturally bordered area, relief, terrain and sub-terrain waters, climate, soil, flora and fauna interrelated and developed with each other. Because there are suitable relief (with appropriate mountain minerals), climate type and condition, land and sub-land waters regime, soil, flora and fauna in an appropriate natural continent. Each components adapt for special territory and they have been developing in their proper place for thousands of years. Because of natural balance among of natural components, every area and territory passed special ways of progress.

It is very significant the balance between two groups of components; living and non-living things. If the living things do not be in relation with non-living things, they cannot live. At the same time the non-living things also cannot develop without living things, because the relation between living and non-living things are very important to continuation of the life in the Earth. This connection of these two groups develops in a special balance. The main issue is that this natural condition must not be destroyed otherwise there may be very bad consequences. Wrecked ecological balance cannot be reverted in a short time, it depends a long time and even after this period it cannot be as before. Because new elements will interrelate in new period and they will change the process.

Man can restore the disbalanced ecology and apply different measures but artificially restored ecological balance will not be as before and there will be sharp quality differences between them. It is

impossible to restore the part of Amu-Darya delta which has already became desert, because it is needed a huge amount of water furthermore there are unnecessary loamy and swap areas in such enormous territory. The dependable store of water it would be better to use in irrigation purposes instead of giving it to evaporate and run away into the earth. That's why there have to be worked out another new plan to revert the ecological balance. In this case, in the basis of suitable rate of water will be restored the ecological balance and it will differ from the previous ecological balance.

Each nature complex has its own potential natural wealth. If this natural wealth will be used in a proper way, it will be used for a long time in a benefit and interest of humanity. And on this case the balance of ecology will not be abolished. If they will be used carelessly without plan and will not regenerated, the balance and relation among the components will be destroyed. In this situations will be observed negative conditions and dynamic changes will direct to nonsensical sides. The productivity of natural wealth will decrease. In the result of this changes there will appear the new but not constant connection among the natural components. To settle these disbalances human have to apply different rehabilitate actions.

Ecological balance and stability of nature complexes; there are some suitable and indivisible features of geo-structures (landscapes) and it is impossible to not take them as a single. One of these features is steadiness (stability). There are different thoughts about it in scientific literature. When we say stability we mean the stable strength of geo-systems against exons, endogens and techno-gens. B.S.Preobragenskiy and A.Y.Reteyum (1978) mean the strength against outward affects and restore the destroyed features in this process when they imply the steadiness of landscapes. B.S.Preobragenskiy (1983) described the strength of landscapes against natural and anthropogenic powers as firstly, geo-structure have to be inviolable in outward affects and secondly it have to prevent its social-economical function. M.A. Glasovskaya (1972) gave conception as geo-structures' strength of landscapes have to be in norms and it happen due to self-cleaning ability. Thus, we can consider the strength of landscapes as a self-protect function of natural environment. There is direct connection between ecological balance and stability features of landscapes and it is more stable or just the other way. How landscapes can protect their structure from outward affects so they can be considered as a stabile. On this case the north exposition sides of high and middle-high mountains is considered as a hardy against techno-gen affects and enough stable to the ecological balance. This is characterized by dense vegetation of flora. The grasslands are parted with their highness and productiveness by their steady to the gravitation processes. Landscapes of low sides of mountains, hills and heads of conical spreads are unstable that's why these areas the erosion of soil is very high because their rotting layer of the soil are washed and indicates of plant productivity is low. If process of erosion is managed at the slopes of alluvial and prolluvial lands, it may be relatively stable. Thus, ecologic balances also differ by its stability. In the low terraces, river deltas and low zones of conical spreads the geo-structures are estimated by different levels of stability but the balance is also dangerous. At the Qizilqum region Ustyurt plateau and other regions the ecological balance is not steady. Consequently, the ecological balance in the majority part of Uzbekistan is very critical and dangerous. We can conclude that we have to use the natural resources taking into consideration the stability features of the area and it our previous task. To continuously prevent the stability it is important to apply regularly the necessary measures of improvement.

The aimed usage of natural resources lead to positive changes and the ecological balance is kept solidly, the soil fertile increase, environmental pollution will be prevented and freshness of nature will be provided. In this direction the natural environment will not be damaged and will be kept its productivity and will not affect to the development of the negative conditions. When the dynamic condition of the geo-structures is in norm, there will not be serious changes in nature. All of these actions are the results of the proper and optimal management of geo-structure. It is awkward and impossible to use the natural resources correctly. By scientific research there are different outcomes due to usage of natural resources. We can divide these features into ecologic, economic and social groups by their form. Learning the scientific magazines we can say that outcomes of natural resources usage is not researched enough deeply. There are just articles devoted to it. As ecological outcomes of nature it is considers the negative changes in environment and on this case first of all is taken into consideration anthropogenic processes, pollution, degradation and impoverishment of environment and other conditions. In economical outcomes it is realized the natural negative outcomes because of results of ecological changes. By another way it may be expressed as have an economical look to the new created environment. The social outcomes study the effects of ecological changes to the human health, living condition, esthetic and spiritual condition and other same process and summarize them. Ecological outcomes may vary by meaning, scale and other extends of their using character. It may be divided into primitive and complicated groups. There, on the

first group outcomes may appear by one (sometimes by two) anthropogenesis process affection (for example; washing the soil or deflation and etc.). Complex outcomes happen by multiple processes and there may take part other conditions too. The outcomes of the primitive group can develop during the time and place and convert into complex group.

If the river deltas of irrigated lands, conical spreads are situated in the second or third terraces they may be salted due to ameliorative management and it may increase and widen during the years (ex; in Karakalpakistan in 60-80 years of last century, especially it developed in Mirzachol and Jizzakh deserts in 1990 years). In the result of soil saltiness the yield capacity fell sharply and lost land productivity capacity. Complicated ecologic outcomes are suitable for oasis (especially Bukhara, Korakol, Khorazm, Karakalpakistan, Kashkadarya and others), because on these regions are described by not only anthropogenic processes but poorness and pollution of natural resources and most important by insufficiency of fresh water.

The size, area and conception of ecological outcomes in Aral are considered as a most complicated and many-sided. In this region all natural components changed perceptibly and new environment differ from old one and there are set on new ecological conditions. Nowadays the water, especially fresh water insufficiency complicates the present situation. The saltiness of soil intensively increases because of lack of ground water. This situation created complex ameliorative condition in oasis and affected to the agricultural productivity, damaged it.

In the sandy deserts, by the techno-gen factor affection, the areas of the deserts are widening, in this case there is monitoring the broadening the radius of region area by increasing of inter affection of the natural complexes in the temporary area between the oasis and sandy soils. Secondly there is rising the changes of biogenetic, soil, water and other soon changeable dynamic components and their pollution process modify into negative side.

Because of digging the shafts in obtaining the natural gas and oil in Karshi deserts, the soil and flora layer is destroying here and other components (relief, water, and fauna) functions complicated. In this result of their dynamic actions, there are happening the ecologic and natural outcomes and forming the bad processes.

The forming of ecological outcomes negatively affect to the natural resource potential. Because the developing of the anthropogenic processes influence to the productivity of natural resources and every specialist of this sphere can admit the decreasing of their capacity during this period. Actually, in the basis of the negative ecologic outcomes are formed the economical outcomes elements. In the result of soil saltiness in the agricultural fields and its influence to the yield capacity, the economical outcomes are also show bad indicators. First of all, the profit falls sharply due to common harvest amount and the expenses rise for per hectare. There are wasted the extra fuel, water, mineral fertilizers, and people labor. So, farms lose corresponding economical profits.

In the effect of falling sea-level in Aral, the economic losses are increasing year by year by register indicators. To restore them (benefits and losses), it have to be increased the productivity of farms and their indicators, but it is impossible in a lack of water period. In these conditions, it is better to develop the less-water-required production and the problem may be solved by obtaining the local resources, increasing handicraft and improving the livestock breeding quickly.

In 1960-1980 years, building of a lot of magisterial collectors helped to fulfill the lowlands and hollows of the plains with gutters, and there were made big water sources (Sarikkamish, Dengizkol, Shorkol and others), by the way natural pastures areas remained under this gutters and their area were shortened. The area of Great Arnasai-Aydar Lake increasing progressively and if the water coming continue in this position, it will fill and hollows fulfill with water. There is big bad economical side of this ecological outcome. Large productive pastures may remain under the water and because of raising the level of grunt water are happening negative situations. Is this basin will dry, in this place of it there may appear enormous salty land. The pasture which is appeared in the salty-land will be unproductive for long years. And its economical affect may be not serious and farms expectations of profit will be low. Ecological and economic outcomes create earnest social outcomes. The pollution of nature, especially air and water and their pollution with poisoned wastes, can damage the human health. There also may be different illnesses and this bad condition is very serious for children. The industrial enterprises, transport, building and other objects are main sources of pollution and their chemical compounds harmful for human health, and even they may leave influence, people can lose the labor capacity.

The lack of water damages the health condition in the oasis. The filling sick lists in that territories and frequent illnesses of children can indicate to the social outcomes.

It is good that industrial enterprises carry out the plan in time and economic indicators and profits of workers and laborers are high there. But the dream of carrying out the plan can destroy the environment and on these cases the people who live near these enterprises lose their health and during the treatment of illnesses and diseases enterprises have to pay salary during their sick period and it is one of the economical outcomes too. The best way is to decrease the pollution of environment to the least level, to create healthy condition, succeed in getting fresh water and air. In good conditions it is easy to fulfill the plan of enterprises and support the health of workers.

Concluding the above mentioned issues, we can say that there are complicated relation between the nature and society and all are connected with the influence and character of men. The properly and carefully used natural resources and purposely farm management create closely link between nature and humanity. The non-following to the nature rules and go against them may create negative outcomes and they may be dangerous.