Materials of Conferences

BASIC ECOLOGICAL PROBLEMS OF SOUTH KAZAKHSTAN REGION

Ospanova G.S., Bozshataeva G.T., Turabaeva G.K.

South Kazakhstan State Universitety from M.Auezov,

Shymkent, Republic Kazakhstan,

e-mail: gulzat-1976 @mail.ru

In article priority environmental problems of Kazakhstan and, in particular, the Southern Kazakhstan area which decision consists in new thinking and type of behavior of the person in environment are designated.

Introduction

In recent time aroused a problem of violation of a normal functioning of the ecosystem in consequence of intensifying antropogenic influences to a natural environment. The ecology problems started increase from the local to the regional and into interregional than to the global.

The priority character of ecological problems (connected with the growth) began to threaten to the human life in our planet. That why the task of modern ecology is to help to survive from these difficult conditions. Gradually the process of deserting is increasing happening degradation of plant conferring under the influence of the antropogenic factors and unnormal use of the nature resources[1].

The different types of soil degradation, which is, connected with the antropogenic factors represent large-scale losses. According to the given factors from 30% - to 80% the watering grounds suffer from the reserve salting and different kind of soil disease. The losses of fertility of soil and devastation is typical for all the Five Central – Asiatic governments. They are Kazakhstan, Uzbekistan, Kirgizia, Turkmenistan and Tadgikistan, which occupy the territory of 4-mln square km of Drainage basin of the Aral and Caspian seas.

Dry climate and a less precipitation's are typical to the Central Asia. These lead to desolating and salting of soil. Degradation of soil was aroused mainly by the unrational use of water resources, overwatering, overuse of regetation on fuel and by industrial development[2].

In Kazakhstan in consequence of extensive development of agriculture and uneffective keeping of natural reserve and other nature protecting cares, violating of the correlation of square of fields and natural fodder war house, wood and water resources (natural landscapes of region). They lead to erosya of soil, salting and weaken the stability of natural landscapes of region. All this technologenetic loading on ecological systems, deformation between society and nature turned round to ecological crisis. The drying of the Aral Sea.

Research objective

Studying of the main environmental problems of the Southern Kazakhstan area.

Materials and research methods

As a result of poor planning of the top layers of sites, on poorly or not irrigated sites, territory mixing in the course of an irrigation, at the same time inflow of ground waters from irrigated territories finds reflection in changes to which irrigated lands are exposed as a result of salinization. In compliance with artificial distribution of the areas having large reserves of salts, distribution of the salted irrigated lands from upper courses to lower reaches of the rivers increases also. According to scientific proofs, levels of ground waters, their mineralzation, a congestion of stocks of salts, in soil layers are показательями territory drenirovannost: during an irrigation of the top layers of earth loss of waters is inevitably formed, their outflow is provided by ground waters [1].

The fourth source of salinization of irrigated soils most powerful and not changing with a vremeniye in the conditions of an arid climate are easily soluble salts in waters of the rivers. With increase of extent of use of a superficial drain of the rivers on an irrigation, their share accumulation in soils and spreading deposits increases. On the ravinakh and steppes of a foot of mountains the area of irrigated lands increased, it served as the reason of gradual increase in the area of the salted lands (their top layer not salted, but on gentle layers relic stocks of salt of the considerable sizes accumulated) the areas of the salted lands (their top layer not salted, but on gentle layers relic stocks of salt of the considerable sizes accumulated) [2].

Results of research and their discussion

On table N1 given some facts about devastation of agricultural lands of the Central Kazakhstan district by "Kazgiprozem" the branch of Shymkent. Devastation leads to increase the fertility of soil, cutting down the productivity of plants and stockbreeding.Crop capacity in Kizil-Chum (Shardara) fodder plants cutted down till 30% territory till 50%. Researches showed the average crop capacity of dry mass wormwood turf careals of pastures formed in 1930 5 – 6 c/h, in 1950 4 – 5, in recent year 2-3 (Andreev, 1980). In recent year the stable development of society is a present problem. Under the stable development we understand the using of natural resources without any harm for our future generation. In older to protect the stable development of Kazakhstan we must preserve the biological species. It means amount of kinds which joined into ecosystem (plants, animals, microorganisims, etc)[1].

Table N1
The facts about devastation of soil (thousand /hectare) in the Southern Kazakhstan region:

Regions	Thousand /Hectare	Week degree	Middle degree	High degree
Bugun	8,8	-	8,8	-
Djetisai	101,4	-	-	108,4
Kirov	162,5	-	-	62,5
Kizil-Chum	792,6	5,0	787,6	-
Sari-Agach	10,6	10,6	-	-
Turkistan	268,2	218,4	4,4	35,4
Shardara	671,0	-	459,2	217,4
Total:	2015,1	234,0	1260,0	423,7

The "Read Book" of Kazakhstan includes rare and disappearing kinds of animals. It's shown on the table N2.

Table N2 Variousness and conditions of kinds of spine animals on territory of the South-Kazakhstan regions:

N	Group of animals	N of famous kinds of ani- mals in R/K	N of famous kinds of ani- mals in S/K	N of rarely kinds of ani- mals in R/K	N of rarely kinds of ani- mals in S/K	The total percent of animals
1	Mammals	178	88	40	14	49,4
2	Birds	489	377	56	29	77,0
3	Reptiles	49	25	10	3	51,0
4	Amphibian	12	2	2	-	16,3
5	Fish	120	46	27	6	38,3

• Deficit of water resources sloughing soils. Degradation of pastures. Pollution of atmosphere air in urbanized territories. Pollution of environment in oil extraction regions. Pollution of environment by industry and everyday wasters. Rack of forest and especial defending territories. Pollution of water object by effluent waters.

The South-Kazakhstan region is characterized by an agricultural direction demanding the stable water supply. Here exdeficit for water resources, pollution of water by effluent waters, degradation of soil and destroyed monuments of nature and culture.

Conclusions

Intensification of ecological problems, are all over the world and Kazakhstan in the zone of ecological crisis, it is necessary to find the way from it. Kazakhstan including to the global process movement to the stable development must take into consideration interests and needs of not only nowadays and also of the future generation. Entrance into new reality - epoch the stable development. The ecology formation is a new direction of pedagogic in conception of stable development acquires a system forming factor of formation in whole identifies its purpose and main direction. In order to overcome this ecological crisis with above – mentioned ecological problems. Its necessary a preparation of highly qualified specialists which have knowledge of world standard. Higher aducational institution

and school cant stop the pollution of environment, which carry a wide social character, different by meaning and difficult by consequence of antropogenic influence to the existence. But they can make perspective produce an ecological culture of association with nature, to form a mentality directed to prevent the negative influence of human being to the nature. To keep the nature clean the chairman of factories, institutions and enterprises workers and farmers, owners must carry out duties and must avoid to make any threat to the life and heals of human beings to support a process of normal life activities of vegetable and animal world.

Water acquatories, to threat the material values with care to preserve and increase the biological species.

References

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