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Sustainable land use of in terms of land privatization in Ukraine

General recommendations Based on the results of the project "Reinforcing Public Capacity to Realize Rights to Land, Balanced Land Use and Environmental Safety Within the Context of the New Land Code of Ukraine"

Preamble

The main challenge facing humankind at the current stage of development is to cardinaly change the relations between man and nature. The world has come up against the problem of irreversible depletion of natural resources and degradation of ecological systems that are vital for our well-being. Such state of affairs brings the threat to the very existence of man on the Earth. Gradual understanding of new threats make the nations and their political leaders look for new approaches to socioeconomic development and environment management.

Having gained independence at the end of the 20th century, the present generation of Ukrainians received a historic chance, that is, to modernize their society and to integrate Ukraine into the post-industrial civilization created in the leading countries of the world. However, it might well be to point out that Ukraine inherited of resources-consuming economy and extremely neglected environment. Within the period of independence, this country failed to overcome these negative trends: discrepancy between the economic and environmental concerns is deepening, the economy fails to meet social needs and is concentrated on production of raw materials; excessive consumption of resources, economic inefficiency and antiecological orientation of national economy keep growing. This way of development is absolutely inconsistent with the modern trends and principles of sustainable development, making Ukraine take a back seat in the global processes.

Environmental problems associated with agriculture

A global problem to be considered is the pollution of subterranean water. In the second half of the 20th century, population of the Earth and the need for food grew almost two-fold; streams and rivers became more polluted while people started to use, to a greater extent, subterranean water for drinking and irrigation which resulted in pollution of water-bearing horizons located near farms, industrial works or cities. Agriculture still remains the main consumer of subterranean water but other sectors increase water consumption at even faster rates thus obtaining far bigger revenues. The share of industry in total consumption of water reached 22%, and, most probable, it will keep growing. This means that the quality of drinking water is limited not only by exhaustible resources but also by competition with other more powerful consumers.

Fertilizers and pesticides, spread in the course of tillage, have already penetrated into subterranean water [groundwater] under the arable lands in many countries. The excess of chemical fertilizers in fields is supplemented with organic wastes of cattle and sewages of big cities that also have high content of nitrates. Pollution of subterranean water under arable lands produces a paradoxical effect. Utilization of water, containing nitrates, for irrigation may result not in the increase but in the decrease of crop capacity. Nitrates in subterranean water are also harmful to surface ecosystems. A huge amount of nitrogen and phosphorus is washed to water from neighboring poultry farms, arable lands and waste disposal plants. These nutrients cause quick growth of seaweeds [algae] that cover entire water surface. Mass-scale algal blooming gradually depletes the ecosystem blocking the sunshine for aquatic plants that are the habitat for fish, mollusca, also the food for waterfowl. The remains of dead algae, being decayed, deplete the amount of oxygen in water which results in the death of other sea species.

Within the last few decades, chemical companies produced numerous highly toxic compounds that are still considered as less harmful to environment due to their short life. However, scientists obtained the proofs that in subterranean water pesticides are far stronger than in soil. Elimination of excessive dependence of agriculture on chemical substances requires innovations not only on the part of farmers but also on the part of politicians and businessmen. In Sweden, for instance, the tax of 7.5% (per one kilogram of active ingredient) produced a stunning effect: in 1986-1993 the use of pesticides in the country decreased by 65%. In industry, introduction of the "closed cycle" production and construction systems will make it possible to reduce the amount of wastes put by enterprises and cities into sewerage and trash dumps thus protecting water-bearing strata from liquid pollutants. Repeated utilization of materials and chemicals by individuals and companies will help decrease the risk of polluting the subterranean water with heavy metals, insulation chemical materials, solvents applied for dry cleaning, also other toxic substances running from trash and waste dumps.

In fact, market mechanisms can be efficient, while private innovation activity can become essential for solution of quite a few problems. The role of the state is also extremely important: the government should create strong partnerships and provide adequate financing of development of the infrastructure essential for support of stable economy.

Public participation in decision-making on environmental issues

In what way can citizens and country start preventing such negative consequences and decrease the amount of human and economic loss? To begin with, it is necessary to make certain that we understand all risks and aspects of our vulnerability. Then we should use the available knowledge in order to avoid the probability and to decrease the degree of ecological disasters when making efforts aimed at development. The policy of prevention of threats shall be an integral part of the programs of domestic and international organizations. Governments shall take part in financing the assessment of dangers and risks, creation of databases on damages and losses, prevention measures with due regard for social peculiarities of population. Governments can introduce the land use regulations, limit the amount of subsidies for the activity which is risky and destructive for environment, apply financial incentives for rational utilization of land, prevention of threats and promotion of cooperation between the state institutions and civil society.

The state and the public should make joint efforts to observe the principle of the rule of law which is essential for decreasing the risk of catastrophes caused by social and ecological factors. When considering the problem of stable development of our planet, it is worth paying attention to such important sphere as land resource potential since the state of lands to a great extent affects the condition of mineral wealth, surface and subterranean water, forests, and, over the long run, the man's health. Besides, it is in this sphere where big transformations occur that should be taken into account when fixing the priorities of rational use of lands and protection of land surface.

Environmental aspects of land reform in Ukraine

Land reform in any country shall be based on fulfillment of main role and functions of land in nature, economy and society. Reforming of land relations makes provisions for taking the institutional, functional, economic, social, legal, ecological and other measures aimed at establishment of new, in terms of their essence and purpose, social relations interrelated with the management of land. Total area of agricultural lands, negatively affected by water erosion, amounts to 13.4 million hectares, among them 10.6 million hectares of arable lands (32% of the total area). The eroded lands include 4.5 million hectares of soils with average and high degree of washing. Out of them, 66 thousand hectares have completely lost the humus stratum. The scale and intensity of these processes on black earth [chernozem] and similar soils (in terms of fertility) cause special concern. Wind erosion annually affects some 6 million hectares. The total area of degraded and low-yield soils of arable lands in Ukraine, belonging to all land owners and users, makes up about 4856.0 thousand hectares, or 14.6% of tillage area.

One of the main principles of efficient and competitive agricultural production is preservation and raising of land fertility [crop capacity], prevention of degradation processes that greatly depend on the way of land management. A considerable amount of nutrients and organic substances is annually lost together with the products of erosion. Total annual losses of humus as a result of soil erosion and mineralization constitute 32-33 million tons, that is equivalent to 320-330 million tons of organic fertilizers though within the last few years organic fertilizers were not utilized in full scope. Erosion of soil is the chief destabilizing factor of ecological situation in landscapes, leading to pollution and tilting of streams, rivers, ponds, enhancement of autotrophy¹ of water reservoirs.

Among many factors, producing direct impact on land and agrarian reform, special role belongs to the legislative framework that should be adequate to specific historical and social conditions of social development in this or that country. In the course of land reform and its legislative support, cardinal changes were made in such spheres as legal regime pertaining to agricultural lands, individual parcels of lands in populated areas, industry, transport, forestry and water management, reserve lands, introduction of private, collective and municipal ownership. The results of state policy in Ukraine in the domain of reforming the land relations and agricultural sector prove that this country gradually switches to market land relations. In particular, the measures are taken to create the primary market of the lands intended for non-agricultural use, to develop the secondary markets of these lands.

Actions to be taken to encourage land use in a sustainable way

Legal principles has been elaborated in Ukraine for setting up the land market in agricultural sector on the land sharing basis with further provision of land parcel title. At the same time, the experience of economically developed countries demonstrates that, in order to implement the efficient land management and land protection mechanism, it is necessary to introduce the entire complex of institutional, economic and legal methods for reforms in agricultural sector, first and foremost, economic stimulation of agricultural producers, namely:

- provision of tax and credit incentives to citizens and legal entities engaged, at their own expense, in land management and protection pursuant to the national and regional programs;
- allocation of funds from the state and local budgets for restoration of previous condition of lands mismanaged not through their fault;
- exemption from payment for the parcels of land that are at the stage of agricultural development, or improvement of their condition pursuant to relevant programs;
- partial compensation from the budget for the loss of profit caused by temporary conservation of degraded and low-yield lands;
- provision of tax incentives to the land owners that invest into land protection programs, ecologically safe technologies, construction of environment control facilities;
- exemption from taxes on part of revenues of agricultural producers used by them for taking land protection measures;
- imposition of ecological tax on the revenue of agricultural producers that utilize environmentally unsafe technologies, facilities and systems of land management which deteriorate the ecological conditions or deplete soils;
- determination for each parcel of land, transferred to ownership or for agricultural use, the conditions of ecologically safe utilization, in particular, the optimal level of tillage, the

places and the ways of placement of ecologically unsafe crops, limitations on application of chemicals and treatment of land.

Along with the problems of degradation of soils, of great concern are also their technogenic pollution, accumulation of pollutants in soils during their irrigation with sewages of big industrial works and cattle farms.

The main condition for proper crop rotation and improvement of crop capacity of soils is introduction of boundary and land reclamation arrangement of the territory of newly created agricultural complexes. The basic direction in the sphere of land protection, energy saving, introduction of new technologies of cultivation of crops, registration of lands at the current stage of development of land relations shall be arrangement of the territory of newly created agricultural enterprises with updating of plans and maps and elaboration, on their basis, of the land agrotechnical passport [certificate] of such agricultural complexes. The passport should be the main legal and technical document ensuring the rational use and protection of land. It will be issued on the basis of factual availability of the owned and used lands, structure of lands, authenticity of available plans and maps and the information on the state of soils, limitations and liabilities relating to the use of land parcels in economic activity. In doing so, it will be necessary to determine the necessity of changes in targeted use and conservation (transformation) of agricultural lands, the ways of tillage differentiation in terms of intensity of use on the basis of agro-economic evaluation of suitability of soils for cultivation of plants.

Protection of lands shall be supported both legally and financially. The State Committee on Land Resources of Ukraine elaborated and submitted for consideration of the Verkhovna Rada of Ukraine the Draft Law of Ukraine "On protection of land". Besides, in the year 2001, according to Section "Protection and rational use of land" of the State Budget of Ukraine, UAH 3730 thousand had to be provided for this purpose, but actually only UAH 2128.0 thousand were allocated (57%). Land protection works were financed from the funds that had been obtained as compensation for the losses of agricultural and forestry sectors (UAH 19399.0 thousand).

However, despite limited funding, in 2001 the land protection works were carried out in different directions: construction of antierosion facilities, protective afforestation, arrangement of meadows on degraded and polluted tillage. Last year 2604.9 hectares of land were reclaimed in Ukraine, among them, agricultural land – 1358.4 hectares, in particular: for tillage – 771.8 hectares, forestry (shrubbery) – 897.9 hectares, water reservoirs – 133.4 hectares, construction sites – 31.0 hectares, recreation and other purposes – 184.2 hectares. Low-yield agricultural lands were reclaimed with fertile soils (total) – 495.5 hectares, tillage – 412.6 hectares.

Data by the end of 2001:

mismanaged lands (total) – 161284.6 hectares; in particular, in peat diggings – 24874.7 hectares;

depleted mismanaged lands (total) - 43532.2 hectares; in particular, in peat diggings – 9080.9 hectares;

lands being reclaimed: mining and technical reclamation – 2098.9 hectares, among them, in the process of shrinkage after completion of planned works – 494.6 hectares; biological reclamation – 459.2. hectares;

stored fertile stratum of soil, progressive total – 57322.5 thousand cubic meters; at sugar mills – 14163.4 thousand cubic meters.

Beginning from 1986, the land management projects with boundary and reclamation arrangement of territory (progressive total) were elaborated in 2476 farms in an area of 9.37 million hectares. In 2001, the boundaries of fields and parcels of land were fixed in 47 farms in an area of 117 thousand hectares. The soils on hillsides are ruined by both surface and deep

erosion. Enlargement of the area of gullies was observed in case of intensive linear erosion on hillside pastures.

The lands of water industry and water protection zones also need proper management. The lands of water industry shall have special conditions of use. Almost all water objects are not provided with shore protective belts stipulated by the Land and Water Codes of Ukraine that violate the rules of operation of such objects and result in their clogging and pollution. Implementation of any adequate mechanisms of soil control (as the basis of efficient management of soils) is impossible using the obsolete data. The institutions that should form the basis of new control and management system (land management, agrochemical, ecological, sanitary and epidemiological institutions) lack coordination and perform narrow sectorial functions.

It is impossible to manage a considerable part of land resources (forests, installations, reserve areas, mountains) since no information on soil properties is available. Involvement of lands in rotation is not supported, first and foremost, by such factors as their fertility whose unbiased assessment and long-term control shall accompany these processes. Purchase and sale of land should be mainly based not on its area and economic criteria but rather on real estimation of fertility, partial appraisal (suitability for cultivation of specific plants), quality properties of fields (gradient, configuration, etc).

The Law of Ukraine "On payment for land" is not observed, the collected tax is not used for implementing the land protection programs. Besides, the tax is not efficient enough since it is intended only for collection of payments and does not include the mechanisms of control and support of crop capacity. Public organizations (scientific societies, unions of manufacturers, various ecologic, juridical and other kinds of associations), being an integral part of civil democratic society, actually do not take part in solution of problems related to rational use and preservation of soil which is the most important kind of national wealth of Ukraine.

On 25 October, 2001 the Verkhovna Rada of Ukraine passed the new Land Code of Ukraine which fixes the changes in land relations that occurred within the last 10 years. The Land Code specifies cardinal new approaches to regulation of land relations, contains other important provisions pertaining to such regulation on market basis, also establishes proper legislative framework for development of land market pursuant to the standards and requirement of the European Community, namely:

- fixes the private, state and municipal ownership of land with the possibility of using the parcels of land on the basis of joint [collective] property;
- confirms the right of private ownership to land that may belong to natural persons and legal entities of Ukraine, lease rights and also imposes limitations on land use;
- stipulates that both agricultural and non-agricultural lands could be in private property;
- lists the lands owned by the state and municipal authorities that could not be transferred into private ownership;
- specifies the necessity of demarcation of state-owned and municipal lands;
- expands the number of entities that may own non-agricultural lands. Non-agricultural lands may be owned by the citizens of Ukraine, persons without citizenship, legal entities of Ukraine, foreign citizens and foreign legal entities;
- prohibits foreign natural persons and legal entities to own agricultural lands;
- specifies the ways and mechanisms of possession of land in private property;

- envisages that privatization of land parcels by the citizens of Ukraine shall be done free of charge only once according to designated categories of land use ;
- fixes minimal sizes of the land parcels that may be privatized by the citizens of Ukraine free of charge;
- specifies maximal sizes of the land parcels that may be acquired by the citizens of Ukraine as private property for agricultural production;
- establishes the principle of transparency in the course of privatization of land parcels of non-agricultural use for construction purposes by means of holding compulsory land tenders (biddings and auctions);
- specifies compulsory registration of land parcel titles;
- clarifies the provisions, purpose and subject matter of the land cadastre;
- specifies compulsory monetary valuation of land parcels for taxation and fixing the sale price of land parcels when concluding the civil and legal agreements;
- does not prohibit the private owners to pledge the land parcels for agricultural and non-agricultural use to commercial banks;
- permits to make claims to the pledged parcel of land against the security of fulfillment of credit liabilities, also establishes the procedure to this effect;
- fixes the legal guarantees of protection of private property rights against illegal actions of the third persons in the event of withdrawal (redemption) of land parcels for social purposes, also in case of conservation of degraded agricultural lands etc.

Following the adoption of the Land Code of Ukraine, land will be included into civil and legal circulation. Therefore, regulation of the social relations, connected with acquisition of land for agricultural and non-agricultural use by citizens and legal entities, may be also carried out pursuant to civil and other laws. It should be noted that the basic aspects of the land reform in Ukraine in 1991-2001 are interrelated with reforming the rights to possession of, first and foremost, agricultural lands, with support of market-oriented agricultural businesses and establishment of civilized land market. On the other had, such issues as protection of available land, preservation of land and improvement of its quality were neglected.

In fact, within the said period of time, only one legislative act dealing with land protection was passed – the Law of Ukraine “On nature reserves of Ukraine” (1992). However, it covers only the issues of the so-called conservation of land resources, that is, protection involving the full or partial withdrawal of lands from economic utilization and establishment of natural reserves on such lands.

The said legislative efforts were included into the new Land Code. According to it, an important direction of state policy in the area of land protection shall be standardization and regulation in the sphere of land use that should be carried out through introduction of norms and standards specifying the requirements to land quality, permissible anthropogenic pressure on soils and different territories. Even with all progressive provisions of the Land Code, one cannot but infer that there exist certain juridical obstacles preventing efficient implementation of these provisions. In particular, the land legislation currently in force does not offer the targeted and rational approach to land as a material foundation of the country, its sovereignty and national security. The legislation does not emphasize the importance of land for strengthening the country, its formation as a socially oriented state ruled by law. Nothing is said there that land is an important asset of the country, that it is the country's territory within its borders separating

the land of Ukraine from other categories of lands, and hence our land is the basic national wealth that should be specially protected by the state.

At present, the system of legislation is not properly structured, it is, so to say, in amorphous state. The priorities of land related and legal changes in agrarian sector created the situation when the land and legal transformations have predominantly agrarian and economic character. The recommendations on adoption of relevant laws, set forth in final provision of the Land Code, need proper scientific and theoretical substantiation of concepts that should be included in these laws (demarcation of land, land market, protection of land and the like).

By January 1, 2010, citizens and legal entities may obtain the property rights of agricultural land with a total area of 100 hectares. By January 1, 2005 it is prohibited to include the right of possession of a land parcel (share) into the authorized funds of business [economic] societies. The Land Code of Ukraine also holds that citizens and legal entities that own the parcels of land for farming and other kinds of agricultural production, also the citizens of Ukraine that own the land shares are not allowed, prior to 1 January, 2005 to sell or alienate in any other way the land parcels belonging to them with the exception of their exchange, devise or withdrawal for social purposes. Application of provisions of the Land Code is also complicated by the fact that most provisions do not have direct effect and require elaboration of a great number of laws and other normative and legal acts.

In the course of working out the land legislation there is no competition among scientific schools in the area of land, ecological and agrarian law. At the same time, the legislation currently in force lacks the adequate system of official punishment for the failure to observe the land reform laws.

Ecological problems of land reforms are separated (artificially) from land and legislative transformations. Also neglected are the ecological-legal and land-legal studies relating to connection of legislative regulation as an independent and differentiated approach integrated into ecological and legal regulation.

Land reform is a long-term process that generates its own imperatives, priorities and mechanisms at each stage of development. This process requires taking additional measures aimed at raising the ecological and legislative awareness of the citizens of Ukraine in order to realize the land property rights, to ensure ecological safety and balanced land management as per the new Land Code, namely:

- to set up the working group for elaboration of amendments and additions to the Land Code of Ukraine, to introduce in Ukraine the system of contest-based selection of the best draft laws on regulation of land relations. The State Committee on Land Resources of Ukraine shall submit the proposals to the Cabinet of Minister of Ukraine on establishment of normative procedure of holding such contests;
- to promote the adoption of new normative and legal acts that regulate the use and protection of lands, in particular:
 - Law on rational use of soils and crop capacity of soils;
 - Law on the status of especially important soil objects;
 - Law on land lease (revised version);
 - Law on price policy in land relations, purchase and sale of land;
 - Law on withdrawal of degraded land from tillage and conservation of such land.

The following shall be the procedure of conservation of degraded, low-yield and technogenically polluted lands:

1. To implement the National program of protection of soils including into it, in addition to production aspects, the state monitoring of soils and crop capacity of soils, to set up the national network of observations, to include it into the international networks and to provide it with relevant status. The National program shall make provisions for intensification of work in regions, establishment of basic protected territories and research sites, significant improvement of scientific support of solution of this problem.
2. To set up the working group consisting of scientists and practitioners for elaboration of legislative acts and "The procedure of management of technogenically polluted lands", also the standard documents on land protection, and the like.
3. To propose the issue of land-agrotechnical passport [certificate] that will be the main legal and technical document for rational use and protection of land. The passport will be issued on the basis of availability of lands in possession and use, structure of lands, authenticity of available lands and maps, also the information on the condition of soils, monetary valuation of agricultural lands, limitations and liabilities as regards the use of land parcels in business activity. In so doing, it will be required to assess the necessity of changes in targeted use and conservation (transformation) of land, the ways of differentiation of tillage in terms of intensity of use on the basis of agroecological estimation of suitability of soils for cultivation of agricultural plants.
4. To regularly analyze the condition of reclamative lands, afforestation and hydrotechnical antierosion installations, also to specify the conditions of land use in protected zones, to take reclamative agricultural and afforestation measures.
5. To elaborate the land use projects relating to establishment of shore protective belts along seas, rivers, lakes and other kinds of water reservoirs, also to map such belts.
6. To increase the scope of afforestations, to raise their efficiency, to improve the protection of forests from pests, diseases and fires. It is particularly important to enhance the liability for burning the stubble as the practice that results in considerable and negative ecological, economic and social consequences.

The following should be done to solve the problems of protection of lands, rehabilitation and preservation of soils:

- to more intensively use the funds obtained from payment for the use of land resources;
- to set up the regional system and to elaborate the programs of monitoring the land condition;
- to create the databases and regional maps of land degradation, to elaborate the feasibility study for degradation control;
- to control and assess the condition of lands belonging to the basic enterprises, to set up the computer-aided monitoring system.

It is recommended to introduce the list of documents that are required for obtaining the land titles or the leasing of land. The mechanism of soil fertility control seems to be quite simple and will include:

- map of a parcel of land with references and limits;
- explication of soil surface;

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- estimated capacity and monetary valuation of a land parcel;
- granulometric composition of soil, content and reserve of humus;
- content of nutritious forms of phosphorus and potassium;
- pH of soil solution;
- average gradient;
- availability of wash out, wind erosion, other drawbacks or negative characteristics (pollution, salinity, stoniness, saline subterranean water, rock yields, fall of vegetation), % of total area;
- recommendations on protection of crop capacity of soils;
- excerpts from environmental control laws.

Long terms results of establishing incentives for sustainable land use