

Law of Ukraine "On the Main Principles (Strategy) of the National Environmental Policy of Ukraine until 2020"

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THE MAIN PRINCIPLES (STRATEGY) OF THE NATIONAL ENVIRONMENTAL POLICY OF UKRAINE UNTIL 2020

SECTION 1. GENERAL PROVISIONS

Anthropogenic and technogenic burden on environment in Ukraine exceeds in several times the respective indicators in the developed countries.

Duration of life in Ukraine is, in average, about 66 years (in Sweden — 80, in Poland — 74 years). It is largely caused by pollution of environment due to production activity of enterprises of mining, metallurgical, chemical industry and fuel and energy sector.

The main reasons of ecological problems in Ukraine are:

Inherited structure of economy with prevailing share of resources- and energy intensive industries, the negative impact of which was strengthened by transfer to market conditions;

Wear of fixed assets of industrial and transport infrastructure;

Existing system of state governance in the area of protection of environment, regulation of usage of natural resources, absence of proper separation of environment protection and economic functions;

Insufficient maturity of public society institutes;

Insufficient understanding in society of priorities for preservation of environment and advantages of sustainable development;

Non-meeting the environment protection legislation.

Ambient air

According to the state statistical reporting of 2009 the main polluters of ambient air are enterprises of processing and extracting industry and enterprises of electricity and thermal power sector (respectively 31 and 21 and 40 percent of total volume of emissions of pollutants emitted into ambient air from fixed sources of pollution). Emissions of pollutants by movable sources are 39 percent of the total amount of emissions of pollutants into ambient air. Emissions of pollutants by automobile transport are 91 percent of pollutants being emitted by movable sources.

The pollutants being emitted mainly into ambient air are nitrogen oxide, carbon oxide, dioxide and other compounds of sulphur, dust.

One can observe an increase of number of cases related to exceeding the established rates of maximal permissible emissions of pollutants by fixed sources. The main reasons causing unsatisfactory condition of quality of ambient air in settlements is non-compliance by enterprises of regime of operation of dust purification equipment, lack of actions for decrease of volume of emissions of pollutants to the established rates, low pace of introduction of the advanced technologies and considerable increase of number of transportation vehicles, in particular, those exceeded their lifetime.

During the last years in industrially developed cities in ambient air the competent authorities have been continuously registering up to 16 polycyclic aromatic hydrocarbons, of those 8 are cancerogenic, groups of nitrosubstitutes (nitrozodimethylam and nitrozodietylamin) and heavy metals (chrome, nickel, cadmium, lead, beryllium). At that in volumes of pollution by chemical cancerogens the compounds of polycyclic aromatic hydrocarbons have the largest specific weight.

In total, the cancerogenic risk in 2009 reached 6,4—13,7 of cases of oncological diseases per 1 thousand persons that considerably exceeds international indicators of risk.

Protection of waters

Water in Ukraine is being used mainly inefficiently, non-productive consumption of water increases, volume of water resources suitable to be used decreases due to pollution and depletion. Practically all surface water sources and ground waters are polluted. Main substances, which cause pollution, — compounds of nitrogen and phosphorus, organic substances, which are exposed to light oxidation, pesticides, oil products, heavy metals, phenols. Intensive eutrophication of inland water bodies causes worsening of status of Black and Azov seas.

By level of efficient usage of water resources and quality of water Ukraine, according to UNESCO, takes 95-th position among 122 countries.

The system of state governance in the area of protection of waters requires immediate reforming towards transfer to integrated management of water resources. Functions of management in the area of protection, usage and restoration of waters are allocated between different central executive authorities that result in their overlapping, different interpretation of provisions of environment protection legislation and inefficient usage of budget funds.

Drinkable water supply of Ukraine almost by 80 per cent is ensured by usage of surface waters. Ecological status of surface water bodies and quality of water in such bodies are the main factors of sanitary and epidemiological well-being of population. At the same time most of water bodies by level of pollution are attributed to those, which are polluted and much polluted.

Underground waters of Ukraine in many regions (Autonomous Republic of Crimea, Donbas, Pridnyprovya) by their quality do not meet the regulative requirements to sources of water supply; it is related mainly to anthropogenic pollution. Status of water supply to rural population is of a peculiar concern as the centralized water supply covers only 25 per cent of rural settlements of Ukraine.

Pollution of water with nitrates causes various diseases, decrease of general resistance of organism and as a consequence, results in increase of level of general disease rate, in particular, to infectious and oncological diseases. Non-compliance of drinkable water with the regulative requirements is one of the reasons for dissemination of many infectious and non-infectious diseases.

Protection of lands and soils

Status of land resources in Ukraine is close to critical. For the period of land reform a large number of problems in the area of land relations were not addressed but it became even sharper.

Among the lands of Ukraine the largest territory is occupied by agricultural lands (71 per cent), 78 per cent of which are tilled soil.

On the whole territory there are the processes of degradation of lands, among which the most scaled erosion (about 57,5 per cent of territory), pollution (about 20 per cent), flooding (about 12 per cent of territory). Content of nutrient substances in soils decreases and annual losses of humus are 0,65 tons per 1 hectare.

The problems in the area of protection of lands are largely caused by incompleteness of process of inventory and automatization of system for maintenance of land cadastre, imperfection of land management documentation and insufficiency of legal and regulatory support, conduct of educational activities, and low institutional capacity of the respective executive authorities.

Protection of forests

By area of forests and reserves of timber Ukraine is a country with a deficit of forest resources.

Forests occupy more than 15,7 per cent of the territory of Ukraine (9,58 million of hectares) and are located mainly on the north (Polysya) and on the west (the Carpathians). Under the European recommendations the optimal indicator of woodiness is 20 per cent; to achieve this it is necessary to plant more than 2 million hectares of new forests. The total areas of lands covered with forests increased since 1961 from 7,1 up to 9,5 million hectares (by 33,8 per cent).

If the abovementioned pace of afforestation are kept then only in 20 years Ukraine will achieve an optimal level of woodiness.

The forests of the State Forestry Committee, which are attributed to nature and reserve fund, occupy about 1,2 million hectares or 35 per cent of nature and reserve fund of Ukraine. The share of preserved forests, which are under competence of the State Forestry Committee, is 15,4 per cent.

The powers for protection and restoration of forests are entrusted to central and local executive authorities that results in duplication of their work and inefficient usage of budget funds. The system of management in the area of protection and restoration of forests does not fully ensure multi-target, continuous and non-exhaustive utilization of resources and forest ecological systems. It is necessary to reform the said system and ensure unbundling of environment protection and economic functions.

Mineral Resources

According to the cadastre accounting Ukraine as of early 2009 had 8658 deposits with 97 types of mineral resources and almost 12 000 of their displays. One of the largest by volume is reserves of coal, iron, manganese and titanium and zirconium ores as well graphite, kaolin, potassium salts, sulphur, fireproof clays, facing stones. Their share in Ukraine is considerable. In total in 2009 more than 2 000 mining enterprises were in service. The total number of developed deposits is 3 000. In volumes of production the iron ore, fluxing lime stones, coal as well as construction stone prevail.

Most of the mineral resources in Ukraine is produced within several mining and industrial regions — Donetsk, Kryvoriz'ko-Nykopolsky and Prykarpatsky. The long and intensive utilization of mineral resources in these regions resulted in the considerable changes of geological environment and occurrence of natural and technogenic emergencies. The main factors of negative influence is an extremely high concentration of mining enterprises, high level of depletion of majority of deposits, insufficient volume of financing of work focused on decrease of impact on environment that was caused by development of deposits.

Accidents

On the territory of Ukraine the high risk of occurrence of natural and technogenic accidents remains. In Ukraine 23767 potentially hazardous enterprises and other objects function; the accidents on each of them can result in occurrence of natural and technogenic accidents of state, regional, local and object level.

In Ukraine up to 300 natural and technogenic accidents are being registered annually, as a result of which people die, large economic losses are being incurred.

The main reasons of occurrence of technogenic accidents and catastrophes and intensification of negative impact as a result of occurrence of natural and technogenic accidents in Ukraine are: obsolescence of fixed assets, in particular, those for environment protection purposes, large extent of transportation, storing and utilization of hazardous substances, emergency condition of most of communal networks, insufficient support to the process of introduction of the advanced resources saving and environmentally friendly technologies in environmentally hazardous industries, first of all, in metallurgical, chemical, petrochemical and in energy sector; environment protection problems associated with considerable changes of geological and hydro geological environment and those caused by closure of non-profitable mining enterprises, coal mines and layers, reluctance of business entities to implement the activities related to prevention of accidents and catastrophes on the facilities and objects of high hazard and potentially hazardous objects etc.

Waste and hazardous chemicals

During 2009 due to carrying out by business entities the production activity about 1,2 million tons of waste of I—III class of hazard were generated. The main part of such waste (0,9million tons or 75 per cent of the total volume) is attributed to III class of hazard, waste of I—II class of hazard are 3,8 and 299,2 000 tons respectively.

The sharp environment protection problem is treatment of household waste. The specific indicators of generation of waste are, in average, 220—250 kilograms per year per one person and in large cities they reach 330—380 kilograms per year respectively. Solid household waste are mainly disposed on 4157 waste dumps and landfills with a total area of about 7,4 thousand hectares and only about 3,5 per cent of solid household waste is incinerated on two waste incineration plants in the cities of Kyiv and Dnipropetrovsk. Under the estimates about 0,1 per cent of household waste are hazardous.

Medical waste, which contain hazardous pathogenic and conventionally pathogenic microorganisms, are of considerable threat for environment and human health. In Ukraine about 350 thousand tons of medical waste, which are of potential risk of dissemination of infections, are being generated annually.

In Ukraine one can observe the tendency towards increase of volume of solid household waste generated and transported to landfills. The volume of transported solid household waste that in 2009 reached 50,1million of cubic meters increases year over year by almost 4 million cubic meters. In 2009 72 per cent of population was covered by services for collection of solid household waste.

Among solid household waste a share of waste, which are not exposed to quick decomposition and require large areas for storing, increases. Number of overloaded waste dumps is 243 (5,8 per cent of their total number) and 1187 waste dumps (28,5 per cent) — do not comply with norms of ecological safety.

By the end of 2009 in Ukraine on 2987 warehouses more than 20 thousand tons of unsuitable pesticides were stockpiled, more than half of them are unknown mixtures of highly toxic pesticides, which are included in the list of UN resistant organic pollutants.

Biosafety

At present in Ukraine the system of biosafety is being developed, the main purpose of which is to ensure safe conduct of genetical and engineering activity as well as utilization of genetically modified organisms and prevention of their unauthorized and uncontrolled dissemination.

It is envisaged to achieve this objective through prevention of ecological, economic, social and other risks related to utilization of genetically modified organisms and conduct of genetical and engineering activity as well as the processes, which jeopardize national interests.

In the process of accession to the World Trade Organization Ukraine assumed the obligations to

establish the legal framework in the area of biotechnologies in accordance with international norms and principles. It entails the necessity of comprehensive study and considering the international experience, in particular, of EU Member-States.

Biological and landscape diversity

Occupying less than 6 per cent of the area of Europe Ukraine possesses about 35 per cent of its biodiversity. Biosphere of Ukraine counts more than 70 thousand of species, of those flora — over 27 thousand, fauna — over 45 thousand of species. During the last years one could observe an increase of number of species of plants and animals, which are included in the Red Book of Ukraine.

Ukraine is situated at the crossing of migration ways of many species of fauna, its territory is crossed by two main global routes of migration of wild birds; certain places of nesting are of international importance. More than 100 species of migratory birds are protected in accordance with international obligations.

The nature and reserve fund of Ukraine consists of more than 7608 territories and sites with a total area of 3,2 million hectares (5,4 per cent of the total area of the country) and 402,5 thousand hectares within the coastal line of the Black Sea. The share of nature and reserve territories in Ukraine is insufficient and remains considerably smaller than in the most countries of Europe, where the areas occupied by nature and reserve territories are, in average, 15 per cent.

An extensive development of agriculture caused a considerable decrease of landscape diversity. More than 40 per cent of the area of Ukraine was occupied in the past by step landscapes. At present they are about 3 per cent. 30 per cent of all species of flora and fauna, included in the Red Book of Ukraine, are concentrated on these territories.

For the years of independence the area of nature and reserve fund of Ukraine doubled however in certain cases the sites of nature and reserve fund are under competence of central executive authorities, for which nature and reserve activity is not a priority.

The main threats to biodiversity is a human activity and destruction of nature habitats of flora and fauna, one could observe the disastrous decrease of territories of wetlands, step ecological systems, natural forests. Destruction of environment takes place due to cultivation of lands, deforestation with further change of target use of lands, drainage or watering of territories, industrial, housing and cottage construction etc. Dissemination of non-aboriginal species in natural ecological systems caused considerable misbalance in biocenosis. Governance of conservation of biodiversity of freshwater and sea ecological systems is developed not so quickly as for land ecological systems that affects the volume of fish reserves and habitat of water living resources.

To terminate the processes of worsening of condition of environment it is necessary to increase the areas of lands of ecological network that is a strategic task in achieving the ecological balance of the territory of Ukraine. An increase of area of national ecological network should mainly take place as a result of expansion of the existing and establishment of new sites of nature and reserve fund.

The tasks in terms of protection of biodiversity are not resolved during privatization of lands, preparation and implementation of programmes of sectoral, regional and local development. Lack of boundaries of sites settled on terrain under the procedure established by law results in breaching of requirements of the reserve regime. The paces of demarcation of littoral protection shelter-belts along seas, rivers and around water bodies, which perform the role of ecological corridors, are slow.

Ecologically balanced nature usage

The UN global conference for environment and development approved the Declaration and recognized the concept of sustainable development as a dominant ideology of civilization in XXI century.

The sustainable social and economic development of any country means such functioning of its economy when the increasing material and intellectual needs of population are met simultaneously, efficient and environmentally safe economy and highly efficient balanced utilization of natural resources is being ensured, favourable conditions for human health, preservation and restoration of environment and nature and resource potential of public production are being created.

Integration of ecological policy and improvement of integrated ecological governance system

Considering the future impact on environment at the stage of planning of policies, plans and programmes of development are not legally mandatory in Ukraine unlike the EU legislation.

Environment protection aspects were not widely taken into account in sectoral economic policies. Introduction of the advanced environmentally clean technologies and dissemination of the best practices are very low. Low prices for energy resources, which are kept during a long period of time, as well as high level of wear and obsolescence of equipment, resulted in the situation when Ukraine is the sixth in the world by

volumes of consumption of gas exceeding in 3-4 times the indicators of European countries. Just during the last three years under increase of gas price the actions focused on development of renewable and alternative energy sources are being taken.

Additionally it is necessary to address the issue in terms of protection of environment on the military and defence sites, inaccessibility of which for the respective supervision and control results in violations of environment protection legislation, pollution of surface and ground waters with oil products, destruction of nature landscapes and unsatisfactory restoration of lands unsuitable to be used. Domestic enterprises and other business entities did not establish the system of ecological governance and ecological labeling of products. By 2009 Ukraine has 1630 enterprises, which obtained certificates of quality management system, including 55 — of ecological governance system. Only for 256 types of products 27 commodity manufacturers obtained the ecological certificate for compliance with international ecological criteria under the requirements of international standards - ISO 14000.

Integration of ecological policy into sectoral policies, mandatory considering the ecological component when producing strategies, plans and programmes of development of Ukraine, introduction of ecological governance in enterprises, “greening” of economic activity is a way towards modern sectoral ecological policy that is being implemented in the countries of Western and Eastern Europe.

Regional ecological policy

Differences of social and economic development of regions of Ukraine cause unequal technogenic burden on environment. It is envisaged that the provisions of this Strategy and the National Action Plans developed on its basis will be integrated into regional programmes of social and economic development and detailed at the level of regional environment protection action plans of the Autonomous Republic of Crimea, oblasts, cities of Kyiv and Sevastopol, on the basis of which the local environment protection action plans will be developed, and prepared at the level of village, settlement and town councils.

As a result of implementation of local action plans it is envisaged to strengthen the role of local self-governance bodies in the process of implementation of state ecological policy, to define the areas of its improvement taking into consideration the regional specifics and Guidelines of sustainable spatial development of the European continent (Hannover, 2000).

SECTION 2. PURPOSE AND PRINCIPLES OF NATIONAL ECOLOGICAL POLICY

The purpose of national ecological policy is to stabilize and improve the condition of environment of Ukraine through integration of ecological policy into social and economic development of Ukraine to guarantee the environmentally safe environment for life and health of human being, to introduce the ecologically balanced system of nature use and to preserve the nature ecological systems.

Main principles of national ecological policy are:

Strengthening the role of ecological governance within the system of state governance of Ukraine to achieve equality of three components of development (economic, ecological, social) that causes focus on priorities of sustainable development;

Considering the ecological consequences when making the managerial decisions, when developing the documents, which contain political and/or programme principles of state, sectoral, regional and local development;

Inter-sectoral partnership and involvement of stakeholders;

Preventing the natural and technogenic accidents that provides for analysis and forecasting of ecological risks based on the results of strategic ecological assessment, state ecological expertise as well as state monitoring of environment;

Ensuring ecological safety and maintaining the ecological balance on the territory of Ukraine, removing the consequences of Chernobyl accident;

Responsibility of present generation for preservation of environment in favour of forthcoming generations;

Participation of public and business entities in formulation and implementation of ecological policy as well as considering their proposals when improving environment protection legislation;

Inevitability of responsibility for violation of environment protection legislation;

priority of requirements “polluter of environment and user of natural resources pay the full price”;

responsibility of executive authorities for accessibility, timeliness and reliability of ecological information;

accessibility, reliability and timeliness of receipt of ecological information;

state support and stimulation of domestic business entities, which modernize production aimed at

decrease of negative impact on environment.

SECTION 3. STRATEGIC TARGETS AND OBJECTIVES

The national ecological policy is focused on achieving the following strategic targets:

Target 1. Increasing the level of public ecological conscience

Objectives in this area are the following:

Establishing the national information system for protection of environment;

Increasing the share of ecological information and social advertisement aimed at environment protection that is regularly disseminated by mass media: until 2015 - by 15 per cent, until 2020 - by 30 per cent of basic level (according to the text the basic level is 2010);

Contributing to development of information centres, regional offices of specially authorized executive body for protection of environment as well as the Aarhus information centre set up to the specially authorized executive body for protection of environment;

Establishing, until 2015, the network of national automated information and analytical system for assurance of access to ecological information that would include, in particular, national system of cadastres of natural resources, registers of emissions and transportation of pollutants, and until 2020 – system for management of ecological information in accordance with EU standards;

Drafting, until 2012, and implementing, until 2020, the programme of support of projects of public ecological organizations and bringing the volume of financing of such programme: in 2015 – to the level of at least 2 per cent of total expenditures of the State environment protection fund of Ukraine, in 2020 – at least 3 per cent of these expenditures;

Drafting, until 2015, and implementing the Strategy of ecological education with a purpose of sustainable development of Ukrainian society and economy of Ukraine;

Establishing until 2015 the system of ecological training and improvement of skills of civil servants, whose competence is protection of environment;

Establishing until 2015 the network of regional ecological and educational centres on the basis of educational establishments, non-governmental environment protection organizations etc;

Developing until 2015 the organization mechanism of local, regional and national level to actively involve public in the process of ecological education with a purpose of sustainable development, ecological education and training;

Systemic informing about activities of executive authorities in the area of protection of environment through official web sites and mass media;

Creating, until 2012, and introducing, until 2015, the mechanism of assurance of access of public to ecological information and participation in decision making in accordance with provisions of the Convention on access to information, participation of public in decision making and access to justice for environment issues (Aarhus Convention);

Assisting in issuance and dissemination of Report of public ecological organization with regard to conduct of public assessment of national ecological policy starting since 2011;

Creating until 2015 the conditions to conduct public assessment of activity of executive authorities, conduct of public control for environment protection issues;

Assisting to local communities in terms of introduction of non-exhaustive economy and environmentally friendly technologies; establishing in each oblast the information and experimental and demonstration and training centres to support activities for introduction and dissemination of non-exhaustive economy models and environmentally friendly technologies until 2020;

Providing state support to establishment and development of settlements, which use energy- and resources saving technologies of housing construction, and comprehensive introduction of such technologies until 2015;

Including the issues of development of ecological culture, ecological education and training into state target, regional and local development programmes.

Target 2. Improvement of ecological situation and increase of level of ecological safety

The tasks in this area are the following:

Increasing the level of ecological safety through introduction, up to 2015, of the comprehensive approach towards assessment of risks, prevention and minimization of consequences of natural calamities in

accordance with the Johannesburg Action Plan:

ambient air

decreasing the volume of emissions of generally widespread pollutants:

by fixed sources until 2015 by 10 per cent and until 2020 by 25 per cent of the basic level;

by movable sources through establishing the norms of content of pollutants in exhaust gases until 2015 in accordance with Euro-4 standards, until 2020 — Euro-5;

specifying the target indicators of content of hazardous substances in ambient air, in particular, for heavy metals, non-methane volatile organic compounds, suspended particles of dust (with a diameter less than 10 micron) and resistant organic pollutants to take them into consideration when establishing the technological norms of emissions of pollutants by fixed sources of pollution;

optimizing the mix of energy sector of national economy through increase of volume of usage of energy sources with low level of emissions of carbon dioxide until 2015 by 10 per cent and until 2020 by 20 per cent as well as decreasing the volume of emissions of green-house gases in accordance with international obligations declared by Ukraine under the Kyoto Protocol to the UN Climate Change Framework Convention;

elaborating until 2015 the main principles of national policy for adaptation to climate changes developing and stage-by-stage implementing the national action plan in terms of mitigation of consequences of climate change and preventing the anthropogenic influence upon climate change for the period until 2030, including those under implementation of mechanism of the Kyoto Protocol to the UN Climate Change Framework Convention, joint implementation projects and projects of target ecological (green) investments;

protection of water resources

reforming, during the first stage, the state governance system in the area of protection and efficient utilization of waters through introduction of integrated management of water resources under the basin principle;

reconstructing the existing and constructing the new city water treatment facilities to decrease, until 2020 by 15 per cent, the level of pollution of waters with pollutants (first of all, organic substances, compounds of nitrogen and phosphorus) as well as decreasing, until 2020 by 20 per cent (up to the basic year) the discharges of insufficiently treated waste waters;

drafting and implementing until 2015 the action plan in terms of decrease of level of pollution of inland sea waters and territorial sea to prevent an increase of anthropogenic influence upon environment and to restore the ecological system of the Black and Azov seas;

protection of lands and soils

decreasing, until 2020 in average by 5—10 percent, the areas of cultivated lands in oblasts through withdrawing from cultivated lands the slopes with more than 3 degrees, lands of water protective zones, mothballing the degraded ones. Low productive and technogenically polluted agricultural lands with their further afforestation in forest and forest and step zones as well as meadowing in the step zone;

ensuring, until 2015, complete taking into consideration the environment protection requirements in the process of allotment of lands to accommodate the sites of industry construction, energy sector, transport and communication and during addressing the issues in terms of buy-out, granting, change of target use of land plots;

developing and introducing, until 2020, the system of management of agricultural landscapes by forest and reclamation methods on the principles of sustainable development;

protection of forests

increasing, until 2020, the area of afforestation of territory up to 17 percent of the territory of state through restoration of forests and forest growing on land plots of forest fund, creating the protective forests on the lands of non-agricultural use and on lands allotted for afforestation, restoration and establishment of new field protective forest shelter-belts, except of nature step areas;

geological environment and mineral resources

introducing, until 2020, the ecologically safe technologies of mining work, compulsory recultivation and ecological rehabilitation of territories disturbed as a result of production activity by chemical, mining and petrochemical enterprises, in particular, recultivating, until 2020, the lands on the area of at least 4,3 thousand hectares;

ensuring, as maximal as possible, full utilization of produced mineral resources, minimizing the waste when generating and processing them;

conducting, until 2015, the state register of artesian wells and equipping them with meters of volumes of the extracted water;

protection from technogenic and natural emergencies

improving, until 2020, an efficiency of functioning of state system for coordination of activity of executive authorities and self-governance bodies in terms of prevention of natural and technogenic emergencies and increasing the efficiency of response in case such emergencies occur;

modernizing, until 2020, the national system of informing the population for the issues of natural and technogenic emergencies;

functioning the local systems for notification of population;

implementing, until 2015, the activities related to decrease of volume of bringing the radionuclides beyond exclusion zones and zones of unconditional (mandatory) settling out through functioning of scientifically justified system that combines natural restoration processes with reclamation, forest protective and technical activities, which increase the barrier functions of natural and technogenic facilities of the exclusion zone;

conducting the continuous radiological and ecological monitoring during decommissioning of the Chernobyl NPP and transformation of the "Shelter" facility into the environmentally safe system;

implementing the projects of rehabilitation of territories, which suffered radioactive pollution as a result of the Chernobyl accident and, and returning the lands of the Chernobyl exclusion zone into economy of Ukraine in order to, in future, efficiently use and develop the industrial site and infrastructure of the Chernobyl NPP and exclusion zone;

decreasing the levels of radiation of population and rehabilitation of territories, which suffered radioactive pollution as a result of the Chernobyl accident, through radioactive protection of population and environment, development of productive forces of polluted regions, restoration of productive and social infrastructure on these territories, removing from them the restrictions in terms of agricultural activity;

ensuring implementation of radio ecological and social and economic activities on radioactively polluted territories, support and maintenance of separate banks of data with regard to radioactive pollution of environment (at the level of districts and oblasts), assessment of doses of radiation of population that resides on polluted territories, by means of assessment, forecasting and taking the quick decisions;

implementing the projects of efficient utilization of forest resources on the territories, which are radioactively polluted as a result of the Chernobyl accident, first of all, to prevent forest fires;

fortifying, until 2020 the banks of water bodies within settlements;

identifying, during the first stage, all territories, where there is a threat to occurrence of emergencies due to unsatisfactory technogenic and ecological status as well as their zoning separating into the categories of hazard;

waste and hazardous chemical substances

storing, until 2015, 70 percent of household waste of towns with a population of at least 250 000 inhabitants on the dedicated and environmentally safe landfills as well as, until 2020, storing in full such waste, and decreasing, until 2020 in special places of storing of household waste by 15 per cent of the basic level, the share of waste being exposed to biological degradation;

increasing, until 2020, by 1,5 times the volume of stockpiling, recovery and utilization of waste as recyclable materials;

introducing the advanced technologies for recovery of solid household waste;

ensuring, until 2020, the final disposal of stockpiled, unsuitable to be used, pesticides through introduction of environmentally safe technologies of their disposal and developing, until 2015, and implementing, until 2020, the action plan to replace the specially hazardous chemical substances being produced and used in main sectors of national economy as well as ensuring their safe transportation and storing;

creating, until 2015, the system of safe treatment of medical waste;

biosafety

exercising the control of importing into the territory of Ukraine the genetically modified organisms, preventing their uncontrolled dissemination and improving, until 2015, the permitting system in the area of treatment of genetically modified organisms, including their cross-boundary shipments, ensuring coordination of genetically and engineering activity.

Ensuring, during the first stage, drafting the laws and regulations for the issues of state regulation and control in the area of treatment of genetically modified organisms and conduct of genetically and engineering activity;

Improving, during the first stage, the permitting system in the area of treatment of genetically modified organisms, including their cross-boundary shipments, ensuring coordination of genetically and

engineering activity.

Target 3. Achieving the condition of environment safe for human health

The tasks in this area are the following:

Preventing the violations of sanitary and hygienic requirements to quality of ambient air in settlements (with population of at least 250 000 inhabitants) through establishment and improvement, until 2015, the systems of automated monitoring and strengthening of ecological control of quality of ambient air; main (90 per cent) meeting, until 2020, the sanitary and hygienic requirements to quality of surface waters in the places of intensive water usage by population (for settlements with a population of at least 250 000 inhabitants); meeting, in full, the regulative requirements to sources of centralized drinkable water supply until 2015;

main (70 per cent) meeting, until 2020, the sanitary and hygienic requirements to quality of water being used for needs of drinkable water supply and cooking by rural population;

preparing, until 2015, the state target programme for assessment and prevention of risks to health of population of Ukraine from factors of environment that envisages application of risk assessment methodology; introducing, until 2020, the guided management of ecological risk (including natural and technogenic emergencies);

introducing, until 2020, the system of ecological labeling of goods and foodstuff;

determining the zones of ecological risk and preparation of state target programme for decrease of technogenic burden on health of population residing in the zones of ecological risk for the period until 2020;

strengthening, until 2015, the state ecological control of meeting the legislation in the process of location, construction, operation of new and reconstruction of the existing industrial enterprises and other objects on the basis of assessment of risk for human health;

developing, until 2015, the institutional principles to inform population concerning ecological risks;

expanding a number of sanitary and epidemiological and environment protection issues under the programme of education and training of managerial staff until 2015 and improving, until 2020, the system of continuous professional education for persons who work in the area of protection of environment;

developing, until 2015, the legal and regulatory framework for ecological insurance that will be based upon the issues concerning damage, which may be made to human health;

developing, until 2015, the state system of monitoring of environment through its modernization, strengthening of coordination of activity of monitoring entities and improvement of data control systems as a basis for managerial decision making.

Target 4. Integration of ecological policy and improvement of integrated ecological governance system

The tasks in this area are the following:

Developing and introducing the legal and regulatory framework related to mandatory integration of ecological policy into other documents containing political and/or programme principles of state, sectoral, regional and local development until 2012;

Institutional development and strengthening of efficiency of state governance in environment protection;

Developing under the process “Environment for Ukraine”, the partnership between sectors of society to involve all stakeholders in planning and implementation of environment protection policy;

Introducing the system of ecological governance and preparing the state target programmes to “green” the certain industries of national economy, which provide for technical re-equipment, introduction of energy efficient and resources saving technologies, low waste, wasteless and environmentally safe technological processes;

Developing and introducing, until 2015, the system of incentives for business entities, which introduce the system of ecological governance, principles of corporate social responsibility, apply ecological audit, certification of manufacturing of products, their quality under international environment protection standards, improve ecological performance of products in accordance with the established international ecological standards;

in industry and energy sector:

approving, in 2012, the Concept of introduction in Ukraine of cleaner production and adopting, until 2015, the respective strategy and national action plan;

developing, until 2015, the methodology of determining the degree of ecological risk caused by production activity of ecologically hazardous facilities;

in transport and road sector:

installing, until 2015, the anti-noise structures/screens (in places where settlements are located near motorways) in settlements with a population of at least 500 000 inhabitants and until 2020 –in settlements with a population of at least 250 000 inhabitants;

creating, until 2015, the economic conditions for development of infrastructure of environmentally friendly modes of transport, in particular, the public one, increasing, until 2020, the share of public transport in total infrastructure by 25 per cent;

increasing the requirements to ecological safety and reliability of pipeline transport;

in housing and communal sector and in construction

revising the legal and regulatory framework to ensure environment protection requirements, in particular, to energy- and resources saving, in the process of industrial and housing designing, construction, reconstruction and dismantling of structures;

improving the energy- and resources saving in multistoried buildings;

in agriculture:

creating the conditions for broad introduction of ecologically-oriented and organic technologies of agriculture as well as achieving in 2020 their usage and double increase of areas of their usage in 2020 up to the basic level;

in military and defence sector:

developing, until 2015, the incentives to encourage introduction of ecological governance systems in military units, ensuring, until 2020, the ecologically safe nature usage in the course of operational and combat training, during military maneuvers and trainings;

removing the consequences of ecological damage made by military activity, in particular, compensation of damage to state made by temporary stay of foreign troops on the territory of Ukraine;

in tourism and recreation sector:

introducing, until 2015, the systems of ecological governance and strengthening of state ecological control of tourist, recreation as well as hotel and restaurant business facilities, developing ecological tourism and ecologically-oriented recreation;

developing at the first stage the economic key factors to facilitate development of ecological and green tourism.

Target 5. Termination of losses of biological and landscape diversity and establishment of ecological network

The tasks in this area are the following:

Creating, until 2015, the system of preventive activities concerning species-settlers and ensuring control of inclusion of such species in ecological systems, including the marine one;

Improving, until 2015, the legal and regulatory framework concerning the system of control of trading the species of wild flora and fauna, which are threatened;

Conducting, until 2015, the information and educational campaign in terms of value of ecological and systemic services using as an example the ecological systems of Ukraine, developing, until 2015, and applying in future the cost assessment of ecosystemic services;

Expanding, until 2015, the area of national ecological network up to the level (41 per cent of the territory of this country) required to ensure ecological safety of the country, introducing the system of environment protection activities related to preservation of bio- and landscape diversity and expanding the area of nature and reserve fund up to 10 per cent in 2015 and up to 15 per cent of the total territory of the country in 2020;

Introducing, until 2020, the ecosystemic approach into managerial activity and harmonizing the legislation of Ukraine in the area of protection of environment with the requirements of directives of the European Union;

Establishing, until 2020, the network of centres for artificial breeding and reacclimatisation of rare species of plants and animals and those, which are threatened;

Creating, until 2020, the system of economic drivers to contribute to preservation of bio- and landscape diversity and establishing the ecological network on lands of all forms of ownership;

Taking, until 2015, the administrative actions to terminate disastrous decrease of reserves of water living resources due to their excessive utilization and worsening of condition of environment.

Target 6. Assurance of ecologically balanced nature usage

The tasks in this area are the following:

Drafting and approving in 2012 the Concept of 10-year framework policy of sustainable consumption and production under the Johannesburg Action Plan and implementing the Strategy and National Action Plan until 2015;

Further development of national system of cadastres of natural resources, state statistical reporting using natural resources and pollution of environment;

Technical re-equipment of production processes on the basis of introduction of innovation projects, energy efficient and resources saving technologies, low waste, wasteless and environmentally safe technological processes until 2020;

Introducing, until 2015, the system of economic and administrative mechanisms to stimulate manufacturer towards sustainable and restorable nature usage and protection of environment, broad introduction of advanced cleaner technologies, innovations in the area of nature usage;

Improving energy efficiency of production by 25 per cent until 2015 and up to 50 per cent until 2020 compared to the basic year through introduction of resources-saving in energy sector and industries, which consume energy and fuels;

Increasing the volume of usage of renewable and alternative energy sources by 25 per cent until 2015 and by 55 per cent until 2020 compared to the basic level;

Increasing, until 2020, the share of lands being used in organic agriculture up to 7 per cent;

Establishing, until 2015, the environmentally and economically justified system of payments for special utilization of natural resources and fee for pollution of environment to encourage the business entities to utilize nature in an efficient manner;

Reforming, until 2015, the current system of environment protection funds to strengthen centralization of funds at the level of oblasts, the Autonomous Republic of Crimea, cities of Kyiv and Sevastopol.

Target 7.Improvement of regional ecological policy

The tasks in this area are the following:

Developing and implementing the mid-term regional action plans for protection of environment as the main instrument to implement the national ecological policy at regional level;

Developing, until 2015, the methodology and preparing the local environment protection action plans;

Introducing the ecological component into strategic documents of development towns and regions, considering the requirements of Aalborg Charter during assessment of regional programmes for social and economic development, revising, until 2020, the master plans for development of large cities to implement the provisions of the said international documents;

Legislative supporting, until 2015, the transfer from social and economic planning to environmental, social and economic planning of development of regions and towns;

Developing, until 2020, the legal and regulatory framework concerning ecological and economic macro regions;

Conducting, until 2020, classification of regions by levels of technogenic and ecological risks, creating the respective banks of geological and information data and maps;

Implementing, until 2015, the pilot project concerning combination of system of territorial planning with procedures of long-term forecasting, environmental, social and economic planning and conduct of strategic ecological assessment using as an example the Carpathian macro region;

Developing the partnership "public — authorities – business" at regional level to ensure, until 2020, the social and ecological standards of ecologically safe residence of population;

Decreasing the negative impact of urbanization processes on environment, terminating the worsening of environment in cities and towns, improving the performance of greening and territories of green plants of general use, decreasing, until 2020, the level of pollution of ambient air, water bodies, noise and electromagnetic pollution.

SECTION 4. INSTRUMENTS OF IMPLEMENTATION OF NATIONAL ECOLOGICAL

POLICY

The main instruments of implementation of national ecological policy are the following:

1. inter-sectoral partnership and involvement of stakeholders;
2. assessment of impact of strategies, programmes, plans on status of environment;
3. improvement of permitting system in the area of protection of environment;
4. ecological expertise and assessment of impact of ecological expertise objects on status of environment;
5. ecological audit, systems of ecological governance, ecological labelling;
6. ecological insurance;
7. technical regulation, standardization and accounting in the area of protection of environment, nature usage and assurance of ecological safety;
8. legislation in the area of protection of environment;
9. education and scientific support to formulation and implementation of national ecological policy;
10. economic and financial mechanisms;
11. monitoring of status of environment and control in the area of protection of environment and assurance of ecological safety;
12. *international cooperation in the area of protection of environment and assurance of ecological safety.*

4.1. Inter-sectoral partnership and involvement of stakeholders

An important instrument of implementation of national ecological policy is to develop partnership between sectors and to involve all stakeholders (executive authorities, private sector, producers, researchers, public organizations, local self-governance bodies) in planning and implementation of policy.

Establishment of inter-ministerial commission “Environment for Ukraine” similarly to the UAN EEC process “Environment for Europe” and support to its activity is a mechanism of assurance of such partnership. The task of the said inter-ministerial commission is to annually prepare and conduct national conferences “Environment for Ukraine” involving the public, researchers as well as partners – representatives of international organizations and programmes, ecologically friendly business community.

4.2. Assessment of impact of strategies, programmes, plans on status of environment;

Improvement of ecological legislation in terms of application of Strategic ecological assessment (SEA) as a mandatory instrument of strategic planning of development of social and economic policy at national, regional and local levels. Strengthening of social and economic development of Central European and Eastern European regions makes SEA an important instrument for assessment of impact on environment, in particular, in cross-boundary context.

4.3. Improvement of permitting system in the area of protection of environment

Improvement of permitting system in the area of protection of environment is focused on regulation of nature usage through setting the scientifically justified restrictions for utilization of natural resources and pollution of environment. Development of the said type of activity is associated with implementation of the integrated permit with regard to regulation of pollution of environment in accordance with the EU Directive on prevention and control of pollution (‘IPPC’ 96/61/EC Directive), simplification of procedure of permitting and assurance of transparency. An important aspect is to improve scientific support to setting the limits for utilization of natural resources and establishment of maximal permissible limits of pollution of environment.

4.4. Ecological expertise and assessment of impact on environment

Ecological expertise and assessment of impact on environment (EIA) are focused on prevention the negative impact on environment and establishment of compliance of the planned or executed activity with the norms and requirements of environment protection legislation, efficient usage and restoration of natural resources, assurance of ecological safety. Efficient conduct of state and public ecological expertise is an important priority in environment protection activity and requires improvement of financial support.

4.5. Ecological audit and systems of ecological governance

Ecological audit and systems of ecological governance are focused on increase of ecological rationale and efficiency of activity of business entities, establishment of compliance of ecological audit entities with the requirements of environment protection legislation and improvement of management of business entities, which carry out ecologically hazardous activity, or separate nature reserves.

4.6. Ecological insurance

Ecological insurance is one of types of insurance of civil responsibility of owners or users of objects of increased ecological hazard due to potential emergency pollution of environment by such owners and

users as well as due to making damage to vitally important interests of third persons that provides for partial compensation of damage made to those who suffered. It is necessary to develop and introduce the methodology for assessment of risks and hazards caused by operation of ecologically hazardous objects and methodology for calculation of insurance tariffs according to the specified level of risk. It is extremely important to establish the market of services of ecological insurance and to set up the insurance companies capable to secure the reliable mechanism of insurance.

4.7. Technical regulation and standardization in the area of protection of environment and assurance of ecological safety

Technical regulation in the area of protection of environment and assurance of ecological safety are focused on implementation of scientifically justified and safe for environment and human being the requirements to processes, goods and services.

Strategic tasks concerning development of technical regulation system require integration of ecological norms, requirements and rules in accordance with the legislative framework of the European Union.

Implementation of international standards in the area of resources saving, protection of environment, usage of mineral resources, system of ecological governance and ecological criteria to goods and services will enable the domestic commodity manufacturer to improve ecological aspects of manufacturing and products and level of competition on international markets.

It is necessary to develop the sub-system of standardization and certification in ecological safety, to adopt ecological requirements to products as well as to harmonise national standards with EU standards and norms and international standards ISO 14000, ISO 19000 strengthening the state control of usage of ecological labeling, in particular, that concerning the content of genetically modified organisms. The priority of elaboration of this instrument is to develop and introduce the system of state support to domestic manufacturer of products with improved ecological performance in accordance with legislatively established requirements as well as to improve methods and systems of state accounting and statistical reporting in the area of protection of environment.

4.8. Environment protection legislation

Implementation of ecological policy requires efficient functioning of legislative system in the area of protection of environment focused on achieving the national priorities. The main requirements to such legislation are its compliance with the Constitution of Ukraine, approximation to the respective EU directives, assurance of implementation of multilateral ecological agreements (conventions, protocols etc.), the party of which Ukraine is, social appropriateness, realism, economic efficiency. Legislation should contribute to flexible application of the respective instruments to stimulate implementation of innovative ecological technologies, addressing ecological issues at local level.

The ecological legislation of Ukraine should be brought in compliance with provisions of *acquis communautaire* sources mainly by the following areas:

Assurance of through manner of ecological policy, its integration into the policies of state, sectoral, regional and local development;

Monitoring and assessment of quality of ambient air, in particular, in terms of generally widespread pollutants, zoning of the territory of Ukraine, plans for improvement of quality of ambient air in zones and agglomerations; regulation of decrease of sulphur content in fuel;

Revising the standards for content of pollutants in exhaust gases during manufacturing of certain categories of transport vehicles in Ukraine;

Revising the standards of quality of surface waters used for needs of centralized water supply and for cultural and household usage, cleaning of communal waste waters, prevention of pollution due to washout of nitrates from agricultural lands;

Control of treatment of such types of waste as used chemical sources of current, mercury, including the compact, used lubricants, electronic equipment, end-of-life transport vehicles;

Introducing the comprehensive/integrated permitting system for fixed sources of emissions (first of all those, which generate energy);

Licensing the production, application, import and export of hazardous chemical substances, control of their content in products and safe disposal.

Taking into account the needs to regulate the issues, which cause concern of society, it is necessary to do the following:

Ensuring compliance of legislation of Ukraine that guarantees the rights of citizens for access and usage of lands of water fund and lands for recreation, environment protection and historical and cultural

purposes;

Completing the national legislative framework for the issues of biosafety and ensuring its further improvement considering the respective provisions of the EU legislation. Considering the advisability to draft the by-laws concerning participation of public in decision making or ratification of Almaty amendment to the Aarhus Convention. Developing the procedure and methods of prevention of uncontrolled release of genetically modified organisms, in particular, in terms of improvement of permitting system procedure, decision-making system, procedure of labeling, standardization, state registration of genetically modified organisms, products received with their use as well as establishing the restrictions to their use; systems of packaging, storing, transportation and labeling the products that is received for circulation; using the genetically modified organisms in contained systems, treating the waste of genetically modified organisms and packing.

Developing the comprehensive regional and local programmes focused on addressing the following important ecological issues:

- optimizing planning of development of green zones;
- improving quality of ambient air and decreasing level of noise through optimization of transport flows and minimizing the emissions from fixed sources;
- minimizing generation, sorting, processing and safe recovery or disposal of waste;
- improving quality and ensuring access to qualitative drinkable water.

To improve environment protection activity of enterprises it is necessary to do the following:

Contributing to address, with business entities, the issues related to implementation of programmes for collection and recovery of products after the period of its use is expired, informing the population about influence of production activity on status of environment, arranging broad public discussions concerning the construction plans;

Fulfilling the balanced policy focused on increase of requirements and responsibility of business entities for pollution of environment and on encouragement of introduction of environment protection activities. To this end, it is necessary to foresee the increased responsibility for pollution of environment and reimbursement of damage, including full cost of reclamation/recovery of polluted soils/underground waters. Harmonisation of the existing methodologies of making calculation of damage for pollution of environment with the best global practice, in particular, with regard to pollution of soils and underground waters will also contribute to the said process. It is necessary to legislatively determine the principles of privileged encouragement of activity that provides for voluntary obligation to clean the polluted lands, in particular, in the process of their privatization and introduction of environmentally safe technologies.

4.9. Educational and scientific and support to formulation and implementation of national ecological policy

Development of methodological principles and introduction of continuous ecological education will contribute to successful implementation of national ecological policy. Its such components as ecological education for sustainable development, programme of ecological education within state educational programmes for pre-school educational establishments, for educational establishments and higher educational establishments of I – IV levels of accreditation, programmes of post-graduate education and courses of retraining of experts is a criterion of success of implementation of the Strategy. High priority should be given to comprehensive ecological education of new generation through support to functioning of out-of-school educational establishments, ecological and naturalistic centres and clubs as well as children and youth centers. It is necessary to develop production of educational and social environment protection programmes on TV, to ensure preparation of publications, issuance of special information leaflets and newsletters. Further development and support to non-governmental organizations will contribute to intensification of ecological movement in Ukraine, expansion of international relations to jointly address ecological problems, exchange of information, knowledge and experience and thus development of aware public society on the principles of sustainable development.

During development of programmes of scientific and innovative development it is necessary to take into account a need in rationalization and optimization of nature usage, in particular, technological re-equipment of production process through:

Energy saving, development of renewable and alternative energy sources as well as increase of volume of usage of energy sources with low level of emissions of carbon dioxide;

Resources saving, decrease of specific consumption of land resources, water, timber, mineral and organic substances of natural origin per unit of manufactured products, more qualitative and comprehensive their processing as well as usage of waste as raw materials, their more complete processing to manufacture

products and consumer's goods;

Improvement of technologies for cleaning of ambient air, water bodies, minimizing the waste generation;

Development of new standards for quality of environment, standards of safety for usage of natural resources, maximal permissible norms of impact on environment, ecological safety standards etc.;

Development of technologies for industrial and agricultural production, which make impossible or decrease volumes of usage of ecologically hazardous chemical substances and their compounds;

Implementation of regional programmes of social and economic development and schemes of territorial and city planning complying the principles of sustainable development and development of ecological network;

Restoration of rare biological species as well as those being under threat of disappearance, development of schemes of their adaptation to modern living conditions.

4.10. Economic and financial mechanisms

Assurance of stable financing of environment protection activity, improvement of economic instruments are the main prerequisites for implementation of ecological policy in Ukraine.

The economic instruments and mechanisms of financing of environment protection activity developed and implemented in early 90-s of XX century require further development under globalization.

Due to lack of budget funds it is important to search new sources of financing of environment protection activities focused on removal of pollution, assurance of ecological safety as well as activities related to restoration and maintenance of natural resources in a proper condition. In this context it is necessary to ensure, until 2020, the favourable tax, credit and investment climate to attract funds of international donors and private capital into environment protection activity, establishing by business entities the ecological governance systems, introducing cleaner production and technologies of resources and energy saving.

To develop the economic mechanism of nature usage and environment protection activity it is necessary to do the following:

Improving the legal and regulatory framework for the issues of taxation of pollution of environment, in particular, production, storing, transportation and consumption of ecologically hazardous products, which affect the environment and health of population;

Increasing the tax for pollution of environment having increased the payment for discharge of pollutants up to European level taking into account the toxicity;

Reforming the system of environment protection funds to mobilize the resources at national level and at levels of the Autonomous Republic of Crimea, oblasts, cities of Kyiv and Sevastopol;

Improving the legal and regulatory framework for the issues of nature use on a fee basis;

Improving the methodology for determination of damage made due to violation of legislation in the area of protection of environment and worsening of quality of natural resources;

Revising the privileges in terms of special usage of natural resources and pollution of environment to minimize such privileges;

Increasing the tax burden on those activities and forms of consumption, which are ecologically hazardous for society, first of all, on products hazardous for human health, fees for resources and ecological payments;

Stimulating development of ecological entrepreneurship, in particular, manufacturing of products, performance of work and provision of environment protection services.

4.11. Monitoring of status of environment and control in the area of protection of environment and assurance of ecological safety

To ensure development of state system for monitoring of environment focused on providing the executive authorities, local self-governance authorities and population with timely and reliable information on condition of environment and to improve efficiency of state control of compliance with environment protection legislation it is necessary to analyse the information needs of state governance system, to establish the unified network of observations, to optimize, modernize and technically provide the environment monitoring system, to improve metrological support to observations, to integrate information resources of entities of monitoring system and to ensure functioning of the unified automated sub-system for collection, processing, analysis and storing of ecological data.

The task of state control in the area of protection of environment is to meet the requirements of legislation in the respective area. Strengthening of institutional capacity of the system for state ecological control concerning compliance with environment protection legislation envisages the following:

Improving the legal and regulatory framework with regard to state control in the area of protection of environment and ecological safety;

Revising the existing organization and allocation of powers of regional offices of the State Ecological Inspectorate of Ukraine;

Number of actions focused on increase of level of responsibility of business entities on how the requirements of environment protection legislation are met;

Regulating the relations in terms of public control on how the natural resources are used and environment is protected.

4.12. International cooperation in the area of protection of environment and assurance of ecological safety

To properly conduct international cooperation in the area of protection of environment and to ensure ecological safety it is necessary to do the following:

unconditionally fulfill international obligations in accordance with multilateral and bilateral international agreements of Ukraine;

consecutively take into account the recommendation of UN world summits for sustainable development in Rio de Janeiro and Johannesburg,

expand the cooperation for the issues of prevention of cross-border of pollution of environment;

prevent the global climate change;

ensure active participation of Ukrainian representatives in activities of international environment protection organizations.

SECTION 5. STAGES OF IMPLEMENTATION OF NATIONAL ECOLOGICAL POLICY

The targets of the Strategy will be achieved in two stages:

until 2015 it is envisaged to stabilize ecological situation, slow down an increase of anthropogenic burden on environment, create the conditions to increase level of ecological safety of population, start transferring to environment protection standards of the European Union, draft the respective laws and regulations, improve public activity in the area of protection of environment;

during 2016—2020 it is envisaged to gradually unbundle the functions for protection of environment and economic activity related to usage of natural resources, implement European ecological norms and standards, ecological and systemic planning, introduce mainly the economic mechanisms to stimulate ecologically oriented structural transformations, achieve the balance between social and economic needs and tasks in the area of preservation of environment, ensure development of ecologically efficient partnership between the state, business entities and public and broadly disseminate ecological knowledge.

SECTION 6. MONITORING OF IMPLEMENTATION AND EFFICIENCY INDICATORS

Monitoring of implementation of the Strategy shall be arranged to receive the reliable information on efficiency of fulfillment of plans, projects and programmes for protection of environment and to ensure ecological safety.

The basis of monitoring is a system of target indicators (given in Annex to the Strategy) focused on indicators of sustainable development and tasks of balanced ecological policy. The results of monitoring are highlighted in the National Report on implementation of the National Ecological Policy of Ukraine that is submitted by the Cabinet of Ministers of Ukraine to the Verkhovna Rada of Ukraine every five years, in regional and sectoral ecological reports, which are annually submitted to the authorized executive authority for the issues of protection of environment by central and local executive authorities and local self-governance bodies.

The authorized executive authority for the issues of protection of environment conducts monitoring of implementation of the Strategy and on the results of monitoring as well as on the basis of regional and sectoral ecological reports annually prepares and issues the report on implementation of the National Ecological Policy of Ukraine.

SECTION 7. EXPECTED RESULTS OF IMPLEMENTATION OF STRATEGY

Implementation of the Strategy will enable to:

1. establish the efficient system of raising awareness for the issues of protection of environment and to increase the level of ecological awareness of citizens of Ukraine;

2. improve the status of environment to the level safe for vital activity of population taking into account the European standards of quality of environment;

3. continuously decrease and gradually remove the dependence between economic growth and worsening of condition of environment;
4. terminate the losses of bio- and landscape diversity and to form the integrated and representative ecological network;
5. establish the system of ecologically balanced utilization of natural resources;
6. minimize pollution of soils with hazardous pesticides, agricultural chemicals, heavy metals and waste;
7. ensure transfer to the system of integrated ecological governance in the area of protection of environment and development of environment protection component in various sectors of economy;
8. reform the tax system to strengthen an importance of ecological taxation as a driving force for decrease of negative impact on environment, develop the effective economic mechanism of nature usage;
9. improve the state system of monitoring of environment and system of information support to process of managerial decision-making.

ANNEX TO THE STRATEGY

INDICATORS

Of Efficiency of Strategy for National Ecological Policy of Ukraine until 2020

Target, area of regulation	Unit of measurement
<i>Target 1. Increase of level of public ecological awareness</i>	
Annual report on implementation of National Ecological Policy	Fact of issuance
National report on implementation of National Ecological Policy of Ukraine	Fact of issuance every five years
Availability of adopted list of types of ecological information	Fact of adoption
Preparing and issuing the annual report of public ecological organization concerning public assessment of ecological policy	Fact of issuance
Share of ecological information in mass media of basic level	Per cent
Number of information centres of MENR regional offices	pieces
Share of environment protection advertisement on national TV and radio	Per cent of air time
Number of users of national information system for protection of environment	persons
Environment protection section to educational state programmes with activities for sustainable development and ecological education	Fact of development and adoption
<i>Target 2. Improvement of ecological situation and increase of level of ecological safety</i>	
Percentage between the levels of actual pollution of environment or depletion of natural resources and maximal permissible pollution or depletion that is based on scientifically justified estimates	Coefficient
Overview of status of harmonization of Ukraine's legislation with EU laws	Fact of issuance
Baseline plan for harmonization of Ukraine's legislation with EU laws in the area of environment protection	Fact of adoption
Ambient air	
Quantitative parameters of content of certain chemical and organic ingredients in ambient air	Milligrams per cubic meter
Volume of emissions of pollutants by fixed sources	tons
Volume of emissions of pollutants by movable sources	tons
Number of joint implementation projects	pieces
Number of projects of target ecological (green) investments	—“—
Volume of investments caused by sale (transfer) of units (shares) of the installed amount of emissions of green-house gases	UAH 000
Protection of water resources	
Content of pollutants in water bodies	Milligrams per cubic decimeter
Utilisation of water	Cubic meter per day
Volumes of discharges of pollutants into water bodies	tons
Volume of discharges of waste waters	Cubic meters
Total length of coastal shelter belts of water bodies	kilometers
Content of pollutants in bottom deposits and hydrocoles	Milligrams per kilogram
Protection of lands and soils	
Content of pollutants in soil	—“—
Area of lands for agricultural use	hectares
Percentage of areas of natural and anthropogenically changed landscapes	Per cent
Area (share) eroded lands	hectares (per cent)
Area of recultivated and restored lands exposed to technogenic pollution	hectares
Percentage of tilled soil, perennials, hayfields, pastures and fallows	Per cent
Protection of forests	
Woodliness of territory	—“—
Geological environment and mineral resources	
Area of recultivation of lands disturbed by mining activity	hectares
Number of deposits and number of types of mineral resources	pieces
Number of introduced environmentally safe technologies of mining operations	—“—
Completeness of processing of mineral resources	Per cent

Target, area of regulation	Unit of measurement
Protection from emergencies	
Number of technogenic catastrophes or emergencies with negative ecological and economic consequences	pieces
Creating the database of the State Register of potentially hazardous sites	Number of sites
Waste and hazardous chemical substances	
Volume of funds being allocated for development of activities related to treatment of household waste	UAH million
Covering the population with services for collection of solid household waste	Per cent
Volume of stockpiling and usage of waste as recyclable materials	tons
Volume of ecologically safe disposal of waste	tons
Number of constructed landfills to dispose solid household waste	pieces
Volume of neutralization of unsuitable pesticides accumulated for previous years	tons
Volume of generation of medical waste	tons
Biosafety	
Content of genetically modified organisms in foodstuff	Milligrams per kilogram
Number of laboratories accredited to test and assess the products for content of genetically modified organisms	pieces
<i>Target 3. Achieving the condition of environment safe for human health</i>	
Improvement of status of health of human being due to decrease of influence of negative ecological factors (dynamics of disease rate level)	Per cent
Content of pollutants in ambient air	Milligrams per cubic meter
Content of pollutants in sources of drinkable water supply	—“—
<i>Target 4. Integration of ecological policy and improvement of integrated ecological governance system</i>	
Developing and adopting the legal and regulatory documents to ensure mandatory integration of ecological policy into other policies	Fact of adoption
Share of state, sectoral, regional and local development programmes, which undergone Strategic Ecological Assessment	Per cent
Developing the regulatory and legal principles for functioning of process “Environment for Europe”	Facts of adopted respective decisions
Number of industries of national economy, which prepared, adopted and introduced the state target environment protection programmes	pieces
Share of enterprises and business entities, which introduce the systems of ecological governance under ISO 14000	Per cent
Number of ecological enterprises of small business	units
Market share of products that meet the established ecological criteria and licensed for the right to use the ecological labeling mark	Per cent
Share of transport vehicles, which meet European standards Euro-4 and Euro-5	Per cent
Total length of anti-noise structures/ screens	kilometers
Share of environmentally friendly modes of transport	Per cent
Share of agricultural lands, which use ecologically-oriented and organic technologies of agriculture	Per cent
Number of military objects, which introduce the ecological governance system, number of conducted ecological expertizes	pieces
Share of objects of ecological tourism in total number of objects of tourist business	Per cent
<i>Target 5. Termination of losses of biological and landscape diversity and establishment of ecological network</i>	
Total number of species of flora and fauna	pieces
Number of genetic banks and centres of artificial breeding and reacclimatisation of rare species of plants and animals and those, which are threatened	pieces
Share of territories of nature and reserve fund	Per cent
Number and area of coastal naval waters included in the territories and areas of nature and reserve fund	pieces, km ²

Target, area of regulation	Unit of measurement
<i>Target 6. Balanced Nature Use</i>	
Decrease of consumption of natural resources and energy per unit of products	Per cent
Share of energy sources with lower level of emissions of carbon dioxide	Per cent
Share of usage of renewable and untraditional energy sources in total generation of energy	—“—
Annual report for cash flow of State Environment Protection Fund	Fact of issuance
Volume of irrevocable utilization of water resources for agricultural purposes	Cubic meters
Developing and approving the river basin management plans, which include environment protection activities	Number of plans
<i>Target 7. Improvement of regional ecological policy</i>	
Developing and implementing the mid-term regional environment protection action plans	Number of approved regional environment protection action plans
Compulsory inclusion of environment protection activities into master plans of development of large cities and their compliance with requirements of the Alborg Charter	Number of approved master plans
Preparing the local environment protection action plans	Number of approved local environment protection action plans

Extracts from National Action Plan on Environmental Protection of Ukraine for 2011-2015

(Approved by Order of Cabinet of Ministers of Ukraine of 25 May 2011, No. 577)

Measures	Responsible executors	Time frame	Source of funding (potential)	Indicative funding, thousand hryvnas					Relevant Aichi Biodiversity Targets	
				Total	Including by years					
					2011	2012	2013	2014		2015
Goal 1. Public environmental awareness raising										
1. Comprehensive advertising and information, raising awareness campaign in order to form in the society understanding of value of favorable environment for human well-being, including:	Ministry of Ecology and Natural Resources	January 2012 - December 2013	State Environmental Protection Fund	10000		5000	5000		1	
production and placement on television of social environmental advertisement	Ministry of Ecology and Natural Resources State Committee for Television and Radio Broadcasting of Ukraine	January 2012 - December 2013								
publication of environmental materials in printed media	Ministry of Ecology and Natural Resources	January 2012 - December 2013								
publication of social environmental advertisement the Internet	Ministry of Ecology and Natural Resources	constantly								
raising awareness campaign in the media on environmentally sound methods of use and restoration of wildlife, improvement of agricultural landscapes, land protection, respect for the species of flora and fauna listed in the Red Data Book of Ukraine	Ministry of Ecology and Natural Resources	January 2012 - December 2013								
support the publication of academic, scientific and popular materials on nature conservation, as well as training and educational films, television series and broadcast	Ministry of Education and Science, Youth and Sports, Ministry of Ecology and Natural Resources	January 2012 - December 2013								
development and printing of polygraphic presentation and image products	Ministry of Education and Science, Youth and Sports, Ministry of Ecology and Natural Resources	June - December 2011								
production and placement of environment outdoor advertising	Ministry of Education and Science, Youth and Sports, Ministry of Ecology and Natural Resources	June - December 2011								
information campaign to promote modern technologies in the field of energy efficiency and resource conservation	Ministry of Ecology and Natural Resources other Central Executive Authorities	June - December 2011								
2. Establishing of regional eco-educational centers in educational institutions, non-governmental environmental organizations, protected areas subordinate to the local executive authorities, environmental summer camps, school environmental clubs	Local Authorities Ministry of Ecology and Natural Resources Ministry of Education and Science, Youth and Sports	January 2012 - December 2015	Other sources	involment of any funds not prohibited by law					1	
3. The development and adoption of guidelines for implementation of sustainable economic models and environmentally friendly technologies in economy, in particular construction (municipal sewage cleaning system, water supply, conservation of water and land resources, energy conservation, alternative energy sources, environmentally sustainable subsistence economy, etc.)	Ministry of Ecology and Natural Resources other Central Executive Authorities	January 2012 - December 2013	State budget	within the funds allocated for maintenance					4, 19	
4. Educational and awareness raising activities aimed at implementation of sustainable economic models and environmentally friendly technologies	Ministry of Ecology and Natural Resources Local Authorities,	January 2012 - December 2015	Local Environmental Protection Funds	within the funds allocated for relevant year					19	
5. The establishment of local information-and experimental, demonstration and training centers to promote the introduction and spreading of sustainable economic models and environmentally friendly technologies	Ministry of Ecology and Natural Resources, other Central Executive Authorities	January 2013 - December 2015	State budget	within the funds allocated for maintenance					19	

Measures	Responsible executors	Time frame	Source of funding (potential)	Indicative funding, thousand hryvnas					Relevant Aichi Biodiversity Targets	
				Total	Including by years					
					2011	2012	2013	2014		2015
Goal 2. Improvement of the environmental situation and improve environmental safety										
6. Create a database of available methods (technologies and technological standards) of industrial and agricultural production, treatment and agronomic technology to minimize environmental pollution, resource and energy conservation with the cost of their implementation	Ministry of Ecology and Natural Resources, other Central Executive Authorities	June 2011 - December 2012.	European Union sector budget support	585	292,5	292,5				3, 19
		June 2011 - December 2012	International technical assistance	within projects of international technical assistance					3, 19	
7. Development of proposals to stimulate businesses to CMM use, establishment of bioenergy, small hydro, solar and geothermal energy facilities, wind power and other facilities that work on alternative power sources	Ministry of Energy and Coal Industry, State Agency on Energy Efficiency and Energy Saving, Ministry of Ecology and Natural Resources, other Central Executive Authorities	January 2012 - December 2013	Other sources	involment of any funds not prohibited by law					4	
8. Development of scientific studies on the vulnerability of environmental and socio-economic systems to the climate change	Ministry of Ecology and Natural Resources	January 2012 - December 2014	State Enviromental Protection Fund	600		200	200	200		8
9. Development and submission to the Cabinet of Ministers of Ukraine of draft regulations aimed at the integrated water resources management	Ministry of Ecology and Natural Resources, other Central Executive Authorities	January - December 2012	State Enviromental Protection Fund	within the funds allocated for relevant year					14	
10. Conducting research for development of the river basin management plans for Dniester, Prut and Siret, Southern and Western Bug, Seversky Donets	Ministry of Ecology and Natural Resources, State Water Resources Agency, Local Authorities	January 2012 - December 2013	European Union sector budget support	3510		1755	1755			14
11. Development and approval of the river basin management plans for Tisza and Danube rivers	Ministry of Ecology and Natural Resources, State Water Resources Agency	January 2012 - December 2013	European Union sector budget support	1170		585	585			14
12. Development of scientific study for establishment of a unified system of payment for special water use and environmental tax (for discharge of pollutants into water) to implement the river basin management plans	Ministry of Ecology and Natural Resources	January 2013- December 2015	State Enviromental Protection Fund	500			200	200	100	3, 8, 14
13. Analysis of hydroecological state of river basins of Dniester, Prut and Siret, development of guidelines for determining their ecological status for preparing management plans on use and recovery of surface water resources	Ministry of Ecology and Natural Resources	January - December 2012	State budget	120		120				14
14. Special hydroecological research of the Dniester, Prut and Siret rivers	Ministry of Ecology and Natural Resources	January - December 2012	State budget	200		200				14
15. Assessment of the impact of pollution sources on the Azov and Black Seas condition	Ministry of Ecology and Natural Resources	January 2012 - December 2015	State budget	within the funds allocated for maintenance					14	
16. Development and implementation of activities to reduce pollution of inland marine waters and the territorial sea to prevent the strengthening of human impact on the environment and the Black and Azov Seas ecosystems restoration	Ministry of Ecology and Natural Resources, central and locals executive authorities	January 2014 - December 2015	State budget	within the funds allocated for maintenance					14	
17. Implementation of measures on rehabilitation of the degraded, low productive and technologically contaminated land, reclamation of disturbed land	Local Authorities, Ministry of Agriculture and Food, State Agency of Land Resources, Ministry of Ecology and Natural Resources	June 2011 - December 2015	State budget	within the funds allocated for maintenance					15	

Measures	Responsible executors	Time frame	Source of funding (potential)	Indicative funding, thousand hryvnas					Relevant Aichi Biodiversity Targets	
				Total	Including by years					
					2011	2012	2013	2014		2015
18. Development and submission to the Cabinet of Ministers of Ukraine the draft Conception of the State Special Programme to Combat Desertification and Land Degradation (aimed at the implementation of the UN Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa)	Ministry of Ecology and Natural Resources Ministry of Agriculture and Food, State Agency of Land Resources, other Central Executive Authorities	January - December 2012	State budget	within the funds allocated for maintenance					15	
19. Development and submission to the Cabinet of Ministers of Ukraine of the State Special Programme to Combat Desertification and Land Degradation (aimed at the implementation of the UN Convention to Combat Desertification), its realization	Ministry of Ecology and Natural Resources Ministry of Agriculture and Food, State Agency of Land Resources, Other Central Executive Authorities	January - December 2013	State budget	within the funds allocated for maintenance					15	
20. Development and submission to the Cabinet of Ministers of Ukraine of the draft law on amendments to the Land Code of Ukraine in terms of strengthening the ecological requirements during withdrawal (redemption), granting, changing purposeful designation of land	Ministry of Ecology and Natural Resources, other Central Executive Authorities	June - December 2011	State budget	within the funds allocated for maintenance					7	
21. Improvement of the agricultural landscapes management to restore the environment, improve natural resource capacity of biological and landscape diversity areas considering the need of ecological network development	Ministry of Agriculture and Food, State Agency of Land Resources, State Agency of Forestry, Ministry of Ecology and Natural Resources Local Authorities	June 2011 - December 2015	State budget	within the funds allocated for maintenance					7	
		January - December 2012	Local budgets	within the funds allocated for maintenance						
22. Development of the feasibility study on the implementation of rent for special use of forest resources and valuation of ecosystem services provided within their use	Ministry of Agriculture and Food, State Agency of Forestry	June - December 2011	State budget	within the funds allocated for maintenance					3	
23. The development and adoption of national standards on sustainable forest management, harmonized with FSC international system	Ministry of Agriculture and Food, State Agency of Forestry, Ministry of Ecology and Natural Resources	June 2011- December 2015	State budget	within the funds allocated for maintenance					7	
24. Development and publication of guidelines for businesses on sustainable forest management	Ministry of Agriculture and Food, State Agency of Forestry, Ministry of Ecology and Natural Resources	June 2011- December 2014	State budget	within the funds allocated for maintenance					7, 19	
25. Increase of afforestation area via reforestation and afforestation on forestry lands, establishment of protective forest plantations on non-agricultural lands and lands for reforestation, restoration and creation of new field protection forest belts, except on natural steppe areas	Ministry of Agriculture and Food, State Agency of Forestry	June 2011- December 2015	State budget	within the funds allocated for maintenance					5, 15	
26. Reclamation of lands disturbed by human activity at least up to 2.5 thousand ha by 2015	Ministry of Energy and Coal Industry, other Central Executive Authorities	June 2011- December 2015	State budget	within the funds allocated for maintenance					15	
Goal 3. Achievement of environment safe for the human health										
27. The improvement of state control in the field of environmental protection, including: technical modernization of state control system in the field of environmental protection	Ministry of Ecology and Natural Resources State Ecological Inspection	June 2011- December 2015	State Environmental Protection Fund	56000	16000	10000	10000	10000	10000	4, 8, 19
justification of limits and prevention of above-limit natural resources use through proper technical equipping of controlling bodies	Ministry of Ecology and Natural Resources State Ecological Inspection	June 2011- December 2015								

Measures	Responsible executors	Time frame	Source of funding (potential)	Indicative funding, thousand hryvnas					Relevant Aichi Biodiversity Targets	
				Total	Including by years					
					2011	2012	2013	2014		2015
enhance the efficiency and effectiveness of state control in the field of environmental protection through establishment of automatic stations of water quality control and improvement of sampling	Ministry of Ecology and Natural Resources State Ecological Inspection	January 2012 - December 2013	European Union sector budget support	within projects					4, 8, 19	
strengthening the state environmental and sanitary control over the nitrogen and phosphorus containing compounds and other pollutants in groundwater	Ministry of Ecology and Natural Resources Ministry of Health, Ministry of Agriculture and Food	January 2013 - December 2015								
28. Improvement of the statistical reporting on emissions, discharges of pollutants, waste treatment, natural resources use, the implementation of environmental protection activities	Ministry of Ecology and Natural Resources State Statistics Service, other Central Executive Authorities	June 2011- December 2012	State budget	within the funds allocated for maintenance					4	
29. Classification of the Ukraine's territory according to the environmental risks zones, creation of a database of such zones and mapping them using GIS	Ministry of Ecology and Natural Resources other Central Executive Authorities	January 2012 - December 2013	State Environmental Protection Fund	500		300	200			19
30. Background monitoring on the protected areas	Ministry of Ecology and Natural Resources	June 2012- December 2013	State Environmental Protection Fund	1857,5		350	437,5	500	570	19
Goal 4: Integration of environmental policy and improvement of integrated environmental management										
31. Development and submission to the Cabinet of Ministers of Ukraine the draft law on amendments to the Law of Ukraine "On Environmental Protection" regarding mandatory consideration of the principles of the State environmental policy in sectoral (industrial) and regional draft strategies and programs, during strategic environmental assessment etc.	Ministry of Ecology and Natural Resources	June 2011- December 2012	State budget	within the funds allocated for maintenance					17	
32. Development of sectoral and regional programs on environmental protection (in terms of reduction of emissions and discharges of pollutants, waste production)	central and locals executive authorities, Ministry of Ecology and Natural Resources	June - December 2011	State budget	within the funds allocated for maintenance					8	
33. Development and submission to the Cabinet of Ministers of Ukraine of the draft act on the establishment of inter-agency committee for inclusion of activities on the economy ecologization to the state and sectoral programs	Ministry of Ecology and Natural Resources	June - December 2011	State budget	within the funds allocated for maintenance					8	
34. Development and implementation of the mechanism to stimulate innovations in the field of environmental protection	Ministry of Ecology and Natural Resources, other Central Executive Authorities	January - December 2013	State budget	within the funds allocated for maintenance					3	
35. Development and publication of guidelines on the implementation of environmental management systems for individual economic sectors	Ministry of Ecology and Natural Resources	January - December 2013	State budget	within the funds allocated for maintenance					19	
36. Development and submission to the Cabinet of Ministers of Ukraine the draft law on amendments to the Law of Ukraine "On public procurement" regarding introduction of ecologically reasonable (green) procurement	Ministry of Ecology and Natural Resources, Ministry of Economic Development, other Central Executive Authorities	June - December 2011	State budget	within the funds allocated for maintenance					3	
37. Promotion of the development of bicycle, electric and other environmentally friendly transport including one that works on biofuel, establishment and maintenance of service network, increasing the fleet and the number of routes (lines) of urban electric transport	Ministry for Regional Development, Building and Housing, Ministry of Economic Development, Ministry of Ecology and Natural Resources, other central and locals executive authorities	January - December 2012	State budget	within the funds allocated for maintenance					3	

Measures	Responsible executors	Time frame	Source of funding (potential)	Indicative funding, thousand hryvnas						Relevant Aichi Biodiversity Targets
				Total	Including by years					
					2011	2012	2013	2014	2015	
38. Development and submission to the Cabinet of Ministers of Ukraine of the draft act to strengthen liability for damage caused to pipelines, which foresees compensation for damage to the environment resulting from pipeline damage	Ministry of Ecology and Natural Resources, Ministry of Internal Affairs, Ministry of Energy and Coal Industry, State Ecological Inspection	January - December 2012	State budget	within the funds allocated for maintenance						4
39. Conservation of soil biodiversity as one of the main factors of their fertility and promotion of relevant research	Ministry of Agriculture and Food, Ministry of Ecology and Natural Resources	January 2012 - December 2013	State budget	500		250	250			7
40. Development and approval of methodology of environmentally friendly agriculture according to international practice	—“—	—“—	International technical assistance	within projects of international technical assistance						3
41. Inventory of military and defense lands for the establishment of protected areas on them	Ministry of Defence	June 2011 - December 2015	State budget	within the funds allocated for maintenance						11
42. Development and submission to the Cabinet of Ministers of Ukraine of the draft act to promote environmental (green) tourism	Ministry of Infrastructure, Ministry of Ecology and Natural Resources, other Central Executive Authorities	January - December 2013	State budget	within the funds allocated for maintenance						4
Goal 5. Halting the loss of biological and landscape diversity and development of ecological network										
43. Development of scientific methods and appropriate regulatory framework to prevent and control the spread of invasive alien species under the Convention on Biological Diversity	Ministry of Ecology and Natural Resources, other Central Executive Authorities	January 2013 - December 2014	State Environmental Protection Fund	within the funds allocated for relevant year						9
44. Improvement of state control over the legal compliance during the movement of wild flora and fauna species through the state boundary	Ministry of Ecology and Natural Resources State Ecological Inspection, State Customs Service, Administration of State Border Guard Service	June 2011 - December 2013	State budget	within the funds allocated for maintenance						12
45. Strengthening of the control over the trade in of the endangered wild flora and fauna species	Ministry of Ecology and Natural Resources State Ecological Inspection, Ministry of Internal Affairs	June 2011 - December 2015	State budget	within the funds allocated for maintenance						12
46. The organization of training courses and introduction of specialization in the field of ecology, conservation of biological and landscape diversity in the relevant educational institutions	Ministry of Education and Science, Youth and Sports, Ministry of Ecology and Natural Resources	January - December 2012	State budget	within the funds allocated for maintenance						1
47. Development of methodologies for valuation and classification of ecosystem services	Ministry of Ecology and Natural Resources	January 2014 - December 2015	State Environmental Protection Fund							14
48. Establishment of new and expansion of existing terrestrial and marine protected areas	Ministry of Ecology and Natural Resources	June 2011 - December 2015	State Environmental Protection Fund	2635	210	500	625	650	650	11
		June 2011 - December 2013	European Union sector budget support	3861	702	1755	1404			
49. Establishment and maintenance of national nature parks, nature and biosphere reserves, botanical gardens	Ministry of Ecology and Natural Resources	June 2011 - December 2013	State Environmental Protection Fund	236647	31379	37150	46437	56025	65655	11
		June 2011 - December 2013	European Union sector budget support	28197	10296	6435	11466			
50. Informational and educational activities aimed at the public support of establishment and expansion of protected areas	Ministry of Ecology and Natural Resources	June 2011 - December 2015	State Environmental Protection Fund	8075		1500	1875	2200	2500	11
		June 2011 - December 2013	European Union sector budget support	8892	702	3510	4680			

Measures	Responsible executors	Time frame	Source of funding (potential)	Indicative funding, thousand hryvnas					Relevant Aichi Biodiversity Targets	
				Total	Including by years					
					2011	2012	2013	2014		2015
51. Development of the national ecological network upto to 41 per cent of the state territory	Local Authorities, Ministry of Ecology and Natural Resources Ministry of Agriculture and Food, State Agency of Land Resources, State Water Resources Agency, State Agency of Forestry	June 2011 - December 2015	State budget	within the funds allocated for maintenance					11	
		June 2011 - December 2015	Local budgets	within the funds allocated for maintenance						
52. Determination of areas in which are planned to create up to 2020 ecologically representative and well connected systems of protected areas at least of 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas	Local Authorities, Ministry of Ecology and Natural Resources Ministry of Agriculture and Food, State Agency of Land Resources, State Agency of Forestry, State Water Resources Agency	June 2011 - December 2014	State budget	within the funds allocated for maintenance					11	
			State Enviromental Protection Fund	within the funds allocated for relevant year						
			Local Environmental Protection Funds	within the funds allocated for relevant year						
			Local budgets	within the funds allocated for maintenance						
			Other sources	involment of any funds not prohibited by law						
53. Development of the draft act on approval of the consolidated scheme of ecological network	Ministry of Ecology and Natural Resources, other Central Executive Authorities	January 2013 - December 2015	State Enviromental Protection Fund	3500			1000	1000	1500	11
54. Scientific studies on descriptions of schemes, creation of conceptions of Dniester, South-Ukrainian, Seversk-Donets, Bug, Galician-Slobozhansky ecological corridors	Ministry of Ecology and Natural Resources	June 2011 - December 2013	State Enviromental Protection Fund	950	350	300	300			11
55. Development and publication of a national report on the development of national ecological network for a period 2006-2010	Ministry of Ecology and Natural Resources, other Central Executive Authorities	June 2011 - December 2012	State Enviromental Protection Fund	500	200	300				11
56. Development of scientific guidance for integrated ecological network monitoring, in particular biodiversity monitoring	Ministry of Ecology and Natural Resources	January 2012 - December 2013	State Enviromental Protection Fund	950		250	700			19
57. Establishment of national and regional databases on ecological network	Ministry of Ecology and Natural Resources, other Central Executive Authorities	January 2012 - December 2015	State Enviromental Protection Fund	1750		550	400	400	400	11
58. Improvement of the mechanism of information collecting about wildlife species listed in the Red Data Book of Ukraine, including research of species and their conservation in the environment	Ministry of Ecology and Natural Resources	June 2011 - December 2015	State Enviromental Protection Fund	4250	250	1000	1000	1000	1000	12
59. Taxonomic, populational, ecological and chorological studies of species of plants and fungi listed in the Red Data Book of Ukraine, aimed at their conservation in the natural environment.	Ministry of Ecology and Natural Resources	June 2011 - December 2015	State Enviromental Protection Fund	4250	250	1000	1000	1000	1000	12
60. Population-specific monitoring of the wildlife	Ministry of Ecology and Natural Resources	January 2012 - December 2015	State Enviromental Protection Fund	4750		550	1400	1400	1400	12
61. The maintenance of the Green Book of Ukraine	Ministry of Ecology and Natural Resources	January 2013 - December 2015	State Enviromental Protection Fund	900			300	300	300	12
62. Management of the State Cadastre of Fauna	Ministry of Ecology and Natural Resources	June 2011 - December 2015	State Enviromental Protection Fund	3350	150	800	800	800	800	12
63. Management of the State Cadastre of Flora	Ministry of Ecology and Natural Resources	June 2011 - December 2015	State Enviromental Protection Fund	2840,1	215,3	224,8	800	800	800	12
64. Conservation of brown bears population in the National Nature Park "Synevir"	Ministry of Ecology and Natural Resources	January - December 2013	State Enviromental Protection Fund	100			100			12
65. Reproduction of bison population in the National Nature Park	Ministry of Ecology and Natural Resources	January -	State Enviromental	250				250		12

Measures	Responsible executors	Time frame	Source of funding (potential)	Indicative funding, thousand hryvnas					Relevant Aichi Biodiversity Targets	
				Total	Including by years					
					2011	2012	2013	2014		2015
"Vyzhnytskyi"		December 2014	Protection Fund							
66. Reproduction of the great bustard population in the National Nature Park "Velykyi Lug"	Ministry of Ecology and Natural Resources	January - December 2012	State Environmental Protection Fund	250				250		12
67. Keeping up of the cetaceans in the Black and Azov Seas, development of recommendations to reduce human impact on their numbers	Ministry of Ecology and Natural Resources	June - December 2011	State Environmental Protection Fund	950	950					12
68. Conservation of forest and other bas species populations in the National Nature Park "Desnyansko-Starogutskyi"	Ministry of Ecology and Natural Resources	January - December 2012	State Environmental Protection Fund	90		90				11
69. Development and publication in accordance with the Convention on International Trade in Endangered Species of Wild Fauna and Flora guides on CITES specimens of individual taxonomic group (mammals, birds, reptiles, arthropods, amphibians) for employees of State Inspection at the checkpoints on the state border	Ministry of Ecology and Natural Resources	January - December 2012	State Environmental Protection Fund	1200		1200				19
70. Development and publication of Encyclopedia of Migratory Species of Wild Animals (first stage)	Ministry of Ecology and Natural Resources	January 2012 - December 2013	State Environmental Protection Fund	1800		900	900			19
71. Creation of a genetic bank of flora species listed in the Red Data Book of Ukraine	Ministry of Ecology and Natural Resources	January 2012 - December 2015	State Environmental Protection Fund	2500		200	300	1000	1000	13
72. Development and publication (in Ukrainian and English) of the Carpathians Environment Outlook	Ministry of Ecology and Natural Resources	June 2011 - December 2012	State Environmental Protection Fund	1510	400	1110				19
73. The development and adoption of the regional and local schemes and programs for ecological network development	Local Authorities	June 2011 - December 2015	Local Environmental Protection Funds	within the funds allocated for relevant year					11, 17	
			Local budgets	within the funds allocated for maintenance						
			Other sources	involment of any funds not prohibited by law						
74. Development and maintenance of lists of ecological network areas and sites	Ministry of Ecology and Natural Resources Local Authorities, State Agency of Land Resources, Ministry of Justice	January 2013 - December 2015	State budget	within the funds allocated for maintenance					11, 17	
			State Environmental Protection Fund	within the funds allocated for relevant year						
			Local Environmental Protection Funds	within the funds allocated for relevant year						
			Local budgets	within the funds allocated for maintenance						
			Other sources	involment of any funds not prohibited by law						
75. Development of activities for the conservation, sustainable use and restoration of migratory species of wild animals and their habitats	Ministry of Ecology and Natural Resources Ministry of Agriculture and Food, other Central Executive Authorities	June 2011 - December 2015	State budget	within the funds allocated for maintenance					12	
76. Conservation of wild flora and fauna under the Conference of the Parties to the Convention on Biological Diversity	Ministry of Ecology and Natural Resources Ministry of Education and Science, Youth and Sports, other Central Executive Authorities	June 2011 - December 2015	State budget	within the funds allocated for maintenance					12	
77. The development and implementation of activities for the conservation of flora and fauna species listed in the Red Data Book of Ukraine or protected in accordance with international obligations of Ukraine	Ministry of Ecology and Natural Resources	June 2011 - December 2015	State Environmental Protection Fund	1200		300	300	300	300	12
78. The implementation of the protected area management taking into account ISO 9001, ISO 14001, OHSAS 18000 standards and international experience	Central Executive Authorities to which are subordinated protected areas	January 2012 - December 2015	State Environmental Protection Fund	2375		500	625	625	625	11
79. Development and submission to the Cabinet of Ministers of	Ministry of Ecology and Natural Resources	January 2013 -	State budget	within the funds allocated for maintenance					3	

Measures	Responsible executors	Time frame	Source of funding (potential)	Indicative funding, thousand hryvnas					Relevant Aichi Biodiversity Targets	
				Total	Including by years					
					2011	2012	2013	2014		2015
Ukraine the draft law on amendments to the Tax Code of Ukraine regarding tax benefits to enterprises, institutions, organizations and citizens on lands of which are located protected areas and ecological network objects	other Central Executive Authorities	December 2015								
80. Conservation of the grouse populations in the Carpathian National Nature Park	Ministry of Ecology and Natural Resources other Central Executive Authorities	January - December 2014	State Enviromental Protection Fund	700				700		12
81. Implementation of measures to prevent seizure of felled trees in the forests for the preservation of ecosystems integrity	Ministry of Ecology and Natural Resources State Agency of Forestry	June 2011 - December 2015	State budget	within the funds allocated for maintenance					7	
82. Establishment of artificial breeding centers, re-acclimatization of rare plant and animal species including endangered ones	Ministry of Ecology and Natural Resources other Central Executive Authorities	June 2011 - December 2015	State budget	within the funds allocated for maintenance					12	
83. Development of a mechanism promoting the conservation of biological and landscape diversity, ecological network development on the lands of all forms of ownership	Ministry of Ecology and Natural Resources Ministry of Economic Development, Ministry of Finance, Ministry of Agriculture and Food	January 2014 - December 2015	State Enviromental Protection Fund	400				150	250	3
Goal 6. Sustainable nature use										
84. Development of an action plan to stimulate the implementation of innovative projects, energy-efficient and resource-saving technologies, low-waste, non-waste and environmentally friendly processes	Ministry of Ecology and Natural Resources other Central Executive Authorities	January - December 2012	State budget	within the funds allocated for maintenance					3	
85. Reformation of the permit system using scientifically based limits for the natural resources use	Ministry of Ecology and Natural Resources	January 2012 - December 2015	International technical assistance	within projects of international technical assistance					6	
86. The development of financial and economic study on environmental tax rates, including:	Ministry of Ecology and Natural Resources other Central Executive Authorities	January 2013 - December 2014	State Enviromental Protection Fund	400			200	200		3, 8
development and submission to the Cabinet of Ministers of Ukraine of the draft law on expansion of the taxation base of environmentally dangerous products	Ministry of Ecology and Natural Resources other Central Executive Authorities	January 2013 - December 2014	State Enviromental Protection Fund	within the funds allocated for relevant year						
improvement of methods of economic valuation of natural resources, impact of pollution, physical and biological factors on the environment, economic evaluation of natural resources	Ministry of Ecology and Natural Resources other Central Executive Authorities	January - December 2013	European Union sector budget support	58,5			58,5			
87. Development and submission to the Cabinet of Ministers of Ukraine of the draft law on tax privileges for businesses that use alternative energy sources	Ministry of Ecology and Natural Resources Ministry of Energy and Coal Industry, State Agency on Energy Efficiency and Energy Saving, other Central Executive Authorities	January - December 2014	State budget	within the funds allocated for maintenance					3	
88. Development and submission to the Cabinet of Ministers of Ukraine of the draft law on payments and taxes rate for special use of natural resources and ecological tax rate	Ministry of Ecology and Natural Resources other Central Executive Authorities	January - December 2012	State budget	within the funds allocated for maintenance					3	
89. Development and adoption of local action plans for environmental protection with the involvement of all stakeholders	Ministry of Ecology and Natural Resources Local Authorities	January 2013 - December 2015	Local Environmental Protection Funds	within the funds allocated for relevant year					17	
90. Development of the draf program on conservation of the Carpathian region biodiversity and Carpathian ecological network development	State Administrations of Zakarpattia, Ivano-Frankivsk, Lviv and Chernivtsi oblast Ministry of Ecology and Natural Resources	June 2011 - December 2013	State budget	within the funds allocated for maintenance					17	

Measures	Responsible executors	Time frame	Source of funding (potential)	Indicative funding, thousand hryvnas					Relevant Aichi Biodiversity Targets	
				Total	Including by years					
					2011	2012	2013	2014		2015
91. Support for the implementation of public initiatives to clean up small rivers within preparation for the inter-regional environmental festivals, exhibitions, holidays and other events	Local Authorities, Ministry of Ecology and Natural Resources	June 2011 - December 2015	Local budgets	within the funds allocated for maintenance					4	
92. Support for the implementation of environmental initiatives in partnership "public - government - business"	Local Authorities, Ministry of Ecology and Natural Resources	June 2011 - December 2015	Local budgets	within the funds allocated for maintenance					17	
93. Promotion of inter-regional and international cooperation through the implementation of joint programs and projects aimed at the improvement of the environment	Local Authorities, Ministry of Ecology and Natural Resources	June 2011 - December 2015	Local budgets	within the funds allocated for maintenance						
94. The introduction of mandatory inclusion of the provisions for the creation of parks and green spaces in the general plans of cities and townships	Local Authorities	June 2011 - December 2015	Local budgets	within the funds allocated for maintenance						
Goal 7. Improvement of regional ecological policy										
95. Development and adoption of local action plans for environmental protection with the involvement of all stakeholders	Ministry of Ecology and Natural Resources Local Authorities	January 2013 - December 2015	Local Environmental Protection Funds	within the funds allocated for relevant year					17	
96. Development and implementation of strategies for environmental protection of cities, the implementation of relevant action plans with the participation of business, representatives of public environmental protection organizations and local communities	Local Authorities, Ministry of Ecology and Natural Resources	January 2012 - December 2015	Local budgets	within the funds allocated for maintenance					17	
97. Development of program for the conservation of biodiversity of Carpathian region and the formation of the Carpathian Ecological Network	State Administrations of Zakarpattia, Ivano-Frankivsk, Lviv and Chernivtsi oblast Ministry of Ecology and Natural Resources	June 2011 - December 2013	State budget	within the funds allocated for maintenance					11, 17	