

WORLD ECOLOGY PROBLEMS

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Introduction.

In today's world, preservation of the environment is of importance for the future of civilization. In the near future the importance of maintaining the environment at a level capable of supporting human life and ensuring the reproduction of renewable natural resources and preservation of non renewable resources will eclipse all other human achievements to date. The demographic explosion and scientific and technological revolution of the 2nd half of the 20th century have led to a sharp increase in exploitation of natural resources, and thus to their depletion.

For example, currently more than 3.5 billion of oil and about 4.5 billion of coal and charcoal are taken out of the ground every year. Furthermore, the human race produces a huge quantity of industrial and domestic waste. Between 1970 and 1990, the planet was stripped of almost 200 million hectares of forest; there has been serious degradation and desertification of vast tracts of land; soil pollution by waste, rubbish, slag-heaps, heavy metals, pesticides, toxins, radioactive materials, and abandoned and disused factories. Pollution of the atmosphere is caused mainly by the industrial and transport sectors, which combined emit millions of tones of solid and gaseous substances; of these, the major pollutants are soot, carbon dioxide, sulfurous gases, chlorofluorohydrocarbons, and acids. Also under threat are the planet's water resources, which are of no less importance for the survival of the human race. Water resources, therefore, become polluted by oil products and other forms of waste. The enumerated ecological problems, individually and collectively, are leading to the rapid decline in bio-diversity of fauna and flora, both in specific regions and on the planet as whole.

In today's world, the ecological problem is the biggest problem in both developed and developing countries. In my presentation, I will explain how this problem has become critical in different places like; USA, China and Ukraine.

U.S.A

USA as mainly responsible for global warming, global warming and global climate change are now something we must get used to, as there is no effort to at least to slow down this problem. Dangerous trend caused mainly by CO₂ emissions as the result of dominant fossil fuels use, and the major blame for this giant ecological problem goes to United States. In United States CO₂ emission per capital is six time the global average citizen and more than 30 times that of a citizen in developing countries which is more than worrying information as the world leading country is the main responsible for global warming problem and leads in CO₂ emission. US contribute almost 25% of greenhouse gas emissions which is definitely too much considering US covers only 9% of the world population. United States as the world's leading country should have moral responsibility and put serious efforts in order to solve this problem and not making it even more difficult. But America is used to it's traditional style that includes lots of cars, heavy industries and dominant fossil fuels use, and by the current looks of it, this situation won't change significantly in upcoming years.

CHINA

China as the reason for air pollution, now china seriously suffers because of air pollution problem. This huge country is boosting large economic growth lately and owes it almost all to coal, and since coal is fossil fuel with very harmful effect for environment because it does not only release dangerous greenhouse gases into the atmosphere but also contributes to air pollution. Renewable energy is the only hope for countries like China. For instance in 1999 CO₂ emission reached 18.57 million tones, air pollution emission reached 11.59 million tones and industrial dust emission reached 11.75 million tones, according to statistics released by State Environmental Protection Administration of China.

China is aware of her air pollution problem and tries to fight it by investing more funds in renewable energy sector and particularly in wind energy sector, but as long coal based power plants will dominate China's industry , there is really no place for significant ecological improvement.

UKRAINE

In Ukraine, the level of ecological intensity is much less compared to USA and China, but still the Ukrainian government should take appropriate measures up on environmental protection, so as to avoid ecological problems that might happen in the near future. Although there is high impact upon the environment such as; water pollution, air pollution, water discharge, wastes, soil erosion and degradation, over damping of soil, and so on in many Ukrainian regions in the year 2001 as shown in the table bellow.

The indicators of impact upon the environment by the regions of Ukraine in 2001.

Regions	Water impressions Millions of cubic meters	Air emission Thousands of tones	Water Discharge Millions of cubic meters	Wastes Thousands Of tones	Soil erosion and degradation Thousand of hectors	Over dumping of soil Thousand of hectors	The quantity of victims Thousands of people
The autonomous republic of Crimea.	1699	32,6	186,2	10207	181,1	0,6	0,8

Vinnitsa	708	71,7	73,7	442	105,9	75,9	0,6
Dnipropetrovsk	2196	848,6	815,1	1759569	71,3	34,5	2,5
Donetsk	2384	1588,7	1223,0	564296	36,5	21,7	12,1
Zaporozhyia	1625	233,3	259,9	103475	86,7	25,8	1,1
Ivano-Frankivsk	115	143,8	90,8	45371	40,4	23,8	0,2
Kyyv	1112	87,4	73,3	20896	35,8	83,3	0,6
Lugansky	707	439,6	379,3	119761	29,9	15,1	5,8
Lviv	306	114,5	279,7	81262	191,8	75,2	1Д
Mykolayv	339	13,5	88,7	2486	66,9	15,0	0,5
Odesa	2531	20,8	252,2	1282	77,6	17,6	0,6
Poltava	273	64,9	83,6	5294	23,6	46,3	0,9
Sumy	114	30,5	53,2	28111	20,4	90,4	0,8
Ternopil	82	9,6	38,5	61	92,0	67,7	0,2
Kharkiv	371	156,1	300,8	32820	13,7	48,4	1.1
Chernigiv	141	18,2	23,9	1968	178,7	399,2	0,5

The highest level of ecological intensity is found in Zaporozhyia region (46% of the gross value added), Donetsk region(41%) and Dnipropetrovsk region (40%). The lowest level of ecological intensity is in Lviv region (15%), Ternopil region (16%) and Kharkiv region (16%) in 2001.

In order to solve or at least to reduce this world ecological problem, I would like to advise the following measures:

1. Every government should impose heavy fines to heavy industries which in one way or another are responsible for environmental pollution.

2. Education should be provided to every citizen about the importance of environmental preservation and about the impacts that we are going to face due to environmental pollution.

3. Every government should try to use alternative sources of energy like wind energy, solar energy and other sources which do not pollute environment.

4. Every government should license and finance certain environmental protection activities, in the sphere of environmental protection in the following areas: Utilization, storage, re-location, disposal, burying, and destruction of industrial and other waste materials and substances (apart from radioactive ones); conducting ecological certification and ecological audits.

5. Development and setting up of ecologically clean up means of transport.

6. Creation of an ecological market, in which products which are more harmful to the environment, or which are produced using technology which has a harmful impact on the environment do not have any competitive advantages due to lower price or taken out of the market.

Conclusively, the world ecological security is the most important in the future development of every country, so, every citizen and every government is obliged in protecting environment, in which our future and future of the future generation is depending on it.