

# ESTIMATION OF ENVIRONMENTAL SAFETY OF UKRAINE TERRITORY

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Nowadays in Ukraine, the threat of receipt of vast amounts of emissions from potentially dangerous manufactures (e.g. manufactures which malfunction is accompanied by hard socio-economic and ecological consequences, in result of their harmful effect on environment, people and economic objects) is kept. Therefore all accepted economic decisions should possess a high degree of ecological reliability and safety.

The use of indicative analysis for estimation of environmental safety guaranteeing enables to display effects of specific threats of safety, connected both with conditions of economic-geographical position and with miscalculations in ecological management.

Examination of the ecological factor of safety is carried out by calculating its actual components allowing quantitatively and qualitatively estimate imminent danger and apply a complex of ecological actions for conditions correction.

For environmental safety of territory a standard of threshold valuation of indicators is basic. Comparison of actual values of indicative parameters with threshold valuation allows determining of a corresponding (qualitative) condition of the country and its territory. The acceptable level of safety is achieved when all indicative parameters lie in limits of their threshold valuation.

When classifying the condition of territory on pollution level three basic scales are used: *normal* (n), *pre-critical* (p), *crisis* (c).

If acceptable values of all or nearly all indicative parameters, or insignificant divergence from normal values of these parameters, are guaranteed, so this level is called the *normal level*.

*Pre-critical level* (for the territory concerning to the pre-critical level, the emissions of pollutants in atmosphere come to 5-10 ton/km<sup>2</sup>; overflow raw water – 70-90 per cent; storage of toxic industrial wastes out of rules – 100-500 ton/ km<sup>2</sup>) is defined by condition when the threats for environmental safety start achieving essential importance, which is necessary to be considered.

*Crisis level* (for the territory concerning to the crisis level, the emissions of pollutants in atmosphere is more than 10 ton/km<sup>2</sup>; overflow raw water – more than 90 per cent; storage of toxic industrial wastes out of rules – more than 500 ton/ km<sup>2</sup>) is defined by rather essential negative trends, which already in initial stage of crisis cause great problems in safety achievements. It also means vast deterioration of parameters of quality of life of the population.

Also as a criterion of estimation of a degree of crisis situation in ecological sphere the relative share of population, living on the territory, which is subjected to an action of natural accidents, or territories of ecological pollution (the threshold valuation is less than 1 per cent of a population of Ukraine) is applied.

All territory of Ukraine, which population lives on territories with critical level (exceeding threshold valuation of emissions of pollutants in atmosphere, equal to 10 ton/km<sup>2</sup>) of atmosphere pollution in 2003 was 9 per cent from total amount (tab. 1) and on most radioactive polluted territories – 6,75 per cent, can be concerned to the group with crisis level.

**Table 1 Population of Ukraine, which lives on territories with high level of atmosphere pollution**

| Year | less than 5 ton/km <sup>2</sup> |                     | 5 - 10 ton/km <sup>2</sup> |                     | more than 10 ton/km <sup>2</sup> |                     |
|------|---------------------------------|---------------------|----------------------------|---------------------|----------------------------------|---------------------|
|      | million                         | per cent from total | million                    | per cent from total | million                          | per cent from total |

|      | people | amount | people | amount | people | amount |
|------|--------|--------|--------|--------|--------|--------|
| 1985 | 0      | 0      | 3,9    | 7,6    | 47,6   | 92,4   |
| 1990 | 0      | 0      | 3,9    | 7,6    | 47,6   | 92,4   |
| 1995 | 15,2   | 29,4   | 11,4   | 22,2   | 24,9   | 48,4   |
| 1999 | 23,1   | 46,4   | 8,1    | 16,3   | 18,8   | 37,3   |
| 2003 | 40,5   | 81,4   | 4,7    | 9,5    | 4,5    | 9,1    |

***Summary.***

As is obvious from the foregoing, diagnostics of emergency level of territory on environmental safety with use of the specified approach allows forming of differential system of effective nature protection actions directed to achieving of environmental safety of the state and its territories.