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THE EXPERIENCE OF FIGHTING AGAINST NATURAL DISASTERS IN THE USA

A. Ivatina, group EO-24
O. Havrylenko, Scientific advisor, PhD, the department of foreign languages
Central Ukrainian National Technical University

Natural disasters are extraordinary natural phenomena that act with great destructive force, and cause significant damage to the area they occur, destroy the daily life of the population, and ruin the people's belongings. Nowadays, the problem of safety and elimination of the consequences of natural disasters is becoming increasingly relevant, because a natural disaster is an extraordinary natural phenomenon that acts with enormous destructive force.

The fight against the natural disasters is a pressing issue for European countries and the United States of America. The United States of America is one of the countries in the world suffering the most from the natural disasters. Wildfires are one of the most serious natural hazards in the United States, especially in arid regions such as California, Arizona, Colorado, and other western states. They use a comprehensive approach that includes modern technology, effective resource management, preventive measures, and interagency coordination to fight against this problem the United States. NASA satellites and other agencies are used to track fire sources in the real time. Artificial intelligence is used, to predict the spread of fire depending on wind direction, humidity and other factors. With the help of drones they detect new sources of ignition and assess the scale of fires. Specialized aircrafts are used to fight against fires. They can drop thousands liters of water or fire-extinguishing mixture onto fire sources.

Another, the most common natural disaster in the United States is flooding. lt occurs due to heavy rains, hurricanes, melting snow, or rising river levels. The most vulnerable to flooding regions are: the Gulf Coast, the Mississippi River Basin, and the western mountain regions. They cause significant economic losses and threaten human lifes. With the help of new technologies and a comprehensive approach to flood prevention, the country has more than 91,000 dams built to control water levels in rivers and reservoirs.

To protect coastal cities in areas prone to storms, barriers were built. There is an early warning system by the National Weather Service (NWS), which monitors water levels using satellites and informs people through mobile apps, SMS, radio and television, and forecasting models based on climate data are used to prepare in advance for possible flooding. In the case of large-scale floods, military units are involved to evacuate people, deliver food and water, and restore infrastructure. The country has a National Flood Insurance Program (NFIP), that provides compensation to the victims. The construction is prohibited in areas with a high risk of flooding to prevent floods, communities are regularly trained how to act during floods and how to evacuate in the proper way.

The United States share their experience with countries that also face floods. It helps to adopt to new approaches and technologies and share them. Let's check out these problems in the context of natural disasters inherent in Ukraine and the effectiveness of the application of technologies borrowed from other countries.

As for Ukraine, it rarely encounters large-scale natural disasters. However, in the event of an outbreak, its infrastructure and socio-economic conditions make it vulnerable to their consequences.

Forest fires are a serious environmental and economic problems for Ukraine, especially in steppe and forest regions. The most vulnerable to fires are the zones of Polissya, steppe areas, the Carpathians and the Chernobyl Exclusion Zone. Ukraine has some experience in fighting against the forest fires, but to increase efficiency it is necessary to improve preventive measures, improve the

technical support of services and strengthen control over the human factor. The integration of modern technologies and the implementation of international experience can significantly reduce the number and scale of fires. Ukraine lacks modern firefighting equipment, which makes it difficult to eliminate large fires. Uncontrolled deforestation in the Carpathians and Polissya leads to the accumulation of combustible materials, and also reduces the natural barrier to fires. The increase in average annual temperatures and periods of drought increase the risk of fires.

The fight against the forest fires in the United States and Ukraine has many common features, but differs significantly in scale, resources, and level of technological support. Ukraine needs to improve forestry infrastructure, strengthen accountability for violations of fire safety rules, and educate the population on proper fire handling.

The next environmental problem in Ukraine is flooding. This refers mostly to Transcarpathia, where high water causes significant damage almost every year. Forests hold back water flows, but as a result of their total deforestation, a significant part of the precipitation without any natural obstacles falls into rivers, which are not able to immediately absorb such a mass of water. At the same time, floods on mountain rivers (Dniester, Tisza, Prut) form very quickly, which places high demands on the efficiency of forecasting and warning. If earlier floods occurred with a frequency of 30-40 years, now they occur approximately once every 3-4 years. Most floods occur in spring due to melting snows and in summer due to heavy rains. Outdated dams, canals and drainage systems cannot cope with large volumes of water.

Nowadays, Ukraine is in a state of war and the most important environmental problems are human-made floods, fires, air, water and soil pollution. The constant shelling of forests has caused significant damage to the ecosystem. Despite the war, efforts are being made in Ukraine to address environmental problems. The international community continues to support these efforts to ensure a sustainable future for the country and its people.

Analyzing the US experience might help to improve approaches to disaster management in Ukraine. The US experience in fighting against the forest fires and floods is very useful for Ukraine. Using American approaches, Ukraine can cope with natural disasters more effectively.

Here are some key recommendations for the fighting against the forest fires:

•Improving monitoring and forecasting
•Developing maps of risk zones
•Managed burnings
•Specialized fire fighters brigades
•Using modern technologies
•Informing the population
•Cooperation with the local communities

The fight against floods:

•Infrastructural solutions
•Restoring natural barriers
•Monitoring and early warning
•Evacuation of the population and humanitarian aid
•Property insurance

The main priorities should be investments in infrastructure, the introduction of modern technologies, raising the environmental awareness of the population, and active international cooperation.

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