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**PESTICIDES - THREAT ADDRESSED TO THE
ENVIRONMENTAL SECURITY OF THE REPUBLIC OF
MOLDOVA**

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Abstract:

The presence of pesticides on the territory of the Republic of Moldova represents a direct threat to state security. The Republic of Moldova, with the support of NATO, is making considerable efforts to liquidate the pesticide stocks. This article analyzes the presence of pesticide deposits on the territory of the Republic of Moldova.

Key words: pesticides, security, threat, Moldova, NATO

1.Introduction

At present, environmental issues become an imperative of time, present in the speeches of politicians, but also of the scientific community at both national and international level. More and more researchers, as well as, decision-makers in the field of international politics, are paing attention to the issues concerning the impact of pesticides and chemicals on the environment, including on the health of the population.

Following the collapse of the Soviet Union, many of the successor states have discovered a dangerous heritage on their territories: deposits (especially) of unusable pesticides and chemical fertilizers. The issue of the presence of pesticides and chemicals is not something unknown to the Republic of Moldova. As a result of the collapse of the USSR and a faulty management of pesticides and chemicals, the Republic of Moldova has inherited numerous deposits located throughout the country, with constant challenges of ecological security. During the Soviet period, thousands of tons of chemicals were used annually to combat pests. At that time, chemicals were centrally and cheap distributed. Each peasant association had its pesticide and fertilizer deposits, which were often unjustified, according to the "as much as possible" principle. Thus, pesticides have been used in agriculture 40-60 years ago, and have not been approved, although some of them have been declared forbidden by the International Conventions of the Stockholm Convention on Persistent Organic Pollutants of 23 May 2001, the Convention Rotterdam on the Prior Informed

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Consent Procedure for certain hazardous chemicals and pesticides in international trade of 10 September 1998 (revised in 2013). Thus, 350 deposits (see annex 1) were discovered on the territory of the Republic of Moldova. Of these, many were stranded, partially collapsed, and were not guarded by anyone [1]. In total, during the Soviet period, 7,445 tons of pesticides remained on the territory of the Republic of Moldova.

In the early 1990s, the Institute of Experimental Meteorology attested that 60% of the arable land of the Republic of Moldova was contaminated with pesticides, the concentration of which in some areas exceeded 50 times the permissible quota. At the same time, the Center for Preventive Medicine reported the existence of pesticide residues in tomatoes (56%) and grapes (40%) harvested in the Republic of Moldova [2].

Persistent Organic Pollutants (POPs) are a category of chemically stable substances with toxic and bio-accumulative properties that pose a greater danger to the health of the population and the environment. These substances have pronounced noxious qualities, a high degree of resistance to degradation and accumulation properties in living organisms and the environment, can easily be transported to the atmosphere at big distances and deposited away from the emission site, regardless of their location.

Out of the 110 types of pesticides imported during the Soviet period, only 70 products were identified. Out of these, 24 are banned in agriculture through the Stockholm Convention on Persistent Organic Pollutants [2].

In the past, Moldova used about 40,000 tons of pesticide annually. At present, their use has been reduced to a volume of 4 to 5,000 tones - ten times less. The reason is not just the emergence of a market economy and higher prices for products, but also the changing attitudes and mentality of the population that becomes more informed, and the administration more intolerant to environmental issues [1].

Currently, Moldova is engaged in various activities aimed at the liquidation of pesticide and chemical stocks. Substantial support in solving these problems is provided by NATO within the Individual Partnership Action Plan (IPAP), which establishes Moldova's cooperation program with the North Atlantic Alliance. As an example of cooperation, we are working to identify, repackage and store over 3250 tons of hazardous chemicals and obsolete pesticides, or to create a modern laboratory for the analysis of chemicals and agricultural products.

Also, with NATO support, as of 2003, 1,269 tons of pesticides stored in the country were packed, discharged and destroyed in Poland, as part of the NATO project on the destruction of pesticides and chemicals in Moldova. Not less important is the evacuation and destruction of 1976 tons with NATO support in France in other projects funded by external partners. The project is financially supported by 16 NATO member states and partners of NATO Romania being the leading state of the project [4]. The total cost of the project was 2.2 million Euros, money provided by Belgium, Bulgaria, the Czech Republic, Estonia, Finland, Germany, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Norway, Poland, Romania and Turkey. Another approximately 2,000 tons were centralized into secured deposits.

The project of the NATO Trust Fund for Partnership for Peace on the Destruction of Pesticides and Dangerous Chemicals in the Republic of Moldova was launched in 2003, and the Ministry of Defense became responsible for the implementation of this project through the National Army personnel and equipment [1]. Initially, pesticides were identified, collected and stored, with a subsequent intention to be discharged and destroyed in Poland at the incinerator at Dabrowa Gornicza. Also, with the support of NATO, the Ministry of Defense of the Republic of Moldova collected around 7245 tons of pesticides from the Soviet period in agricultural households and stored in 37 deposits in the country, and the pesticides were subsequently exported to Poland for liquidation. Annually, however, new amounts of buried pesticides were found. Being harmful, annual pesticides affect the health of the population and the environment. The NATO Peace Partnership Trust Project on the Destruction of Dangerous Pesticides and Chemicals in the

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Republic of Moldova aims at enhancing environmental security and improving the live and living conditions of the population. It is managed by Romania, the leading state of the project. Until now, the activities of evacuating and destroying pesticide stocks cost 2, 2 million Euros, allocated by NATO member countries and partners. So far, the National Army's personell has repackaged and centralized about 3245 tons of pesticides, including 640 tons, out of 10 deposits, being evacuated.

Up to now, 2.2 million Euros have been allocated, and another 450 thousand Euros will be transferred by the Romanian Government for the removal of pesticides from Comrat and Faleshti.

In the years 2006-2007, about 80 tons of pesticides from the entire Ungheni district were stored at the warehouse in Zagarancea, located in a military unit. Even if this is the most suitable deposit in the area, its condition is deplorable, presenting obvious dangers. Besides, the warehouse is located near a river that flows into the Prut, in the vicinity of agricultural land. Another example is the situation in the village of Hitreshti from Falesti district, where it is located in the private space of an economic agent, where dozens of workers inhale poisonous. Since 2006, around 190 tons of pesticides have been stored here, collected from 13 agricultural households [1].

Pesticides deposits were also located on the territory of Pashcani from Criuleni district, where more than 250 tons of pesticides were stored. This is a priority issue for the region, which requires urgent resolution. In 2009 and 2012, self-ignition of pesticides took place here. Not less alarming is the situation in the Cantemir, Causheni and Ocnita districts. Thus, according to estimates, 200 tons of pesticides, packaging and contaminated soil were present in three district deposits - Gradinitza (Causheni), Clocushna (Ocnita) and Ciobalaccia (Cantemir), out of a total of about 2000 tons stored in 23 deposits.

The Ministry of Defense annually starts evacuation and destruction of pesticide wastes collected in central deposits in Ceadir-Lunga, Singerei and Ungheni. Soldiers from the "Stefan cel Mare" Motorized Infantry Brigade together with representatives of E.S. Field Service Veolia from Great Britain and members of the ATU Gagauzia Commission for Exceptional Situations have prepared export activities for about 60 tons of pesticide waste (repacking, marking, fastening, weighing, loading) from the central warehouse in the locality Gaidar from Ciadir-Lunga district, ATU Gagauzia. Also, pesticides were collected from Beshghioz, Gaidar, Joltai, Cazaclia, Chiriet-Lunga, Copceac and Tomai, Anenii Noi, Basarabasca, Cahul, Calarashi, Comrat, Dondusheni, Glodeni, Ialoveni, Leova, Faleshti, Soroca and Taraclia [3]. The last batch of pesticides from the Republic of Moldova was discharged on 28 June 2018 from Alexandreni commune, Singerei district, under the NATO Partnership for Peace project on the destruction of pesticides and chemicals in the Republic of Moldova [4].

Thus, taking into account the present situation on the territory of the Republic of Moldova, the authorities will continue to take the necessary actions to ensure a healthy environment, this being one of the four priorities included in the Moldova 2030 Strategy. Also, efforts will be continued for the liquidation of the Soviet reminiscences, which directly affected the population of the Republic of Moldova.

As a result of monitoring the implementation of the Strategy for waste depletion in the Republic of Moldova for the years 2013-2027 and of the Action Plan for its implementation, approved by the Government Decision no. 248 from 10.04.2013 the National Army of the Republic of Moldova has made considerable efforts to liquidate the pesticide stocks in the country.

References:

[1] Kalak D. Periculos! Moldova a scăpat de peste 3000 de tone pesticide și mai are peste 1000 în 15 depozite. http://mem.md/en/articol_meniu/periculos-moldova-a-scapat-de-pest-3000-de-tone-pesticide-si-mai-are-pest-1000-in-15-depozite/

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[2] Patrimoniul de pesticide. <https://www.zdg.md/editia-print/social/patrimoniul-de-pesticide>

[3] Start pentru evacuarea și distrugerea deșeurilor de pesticide din Ceadâr-Lunga, Sângerei și Ungheni. <http://www.moldova.org/start-pentru-evacuarea-si-distrugerea-deseurilor-de-pesticide-din-ceadir-lunga-sangerei-si-ungheni/>

[4] Ultimul lot de pesticide din UTA Găgăuzia a fost evacuat. <https://www.timpul.md/articol/ultimul-lot-de-pesticide-din-uta-gagauzia-a-fost-evacuat-130068.html>