



## Post-war rewilding as a decision-making influence-factor

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Military actions create a number of destructive effects on natural and agricultural landscapes. These influences, which can be seen now during Russia's war in Ukraine, are short-term and their role in the future will consist more in how exactly they will change the territories usage regime. Long-term inaccessibility of territories due to occupation, mining and land pollution are the cause of large-scale spontaneous restoration of semi-natural ecosystems. While Ukraine does not have the opportunity to implement restoration projects on the occupied lands, there continue natural transformation processes that will determine the content of decisions to be made.

For example, the former Kakhovske Reservoir, which HPP and dam were blown up by retreating Russian troops on June 6, 2023, and water flooded out of it. Our research showed almost immediately recovering of native vegetation there. By the end of the year, this recovery led to the natural young forest appearance on a large area freed from the artificial reservoir. This process will allow to restore up to 1,800 km<sup>2</sup> of natural ecosystems (of which at least 1,000 km<sup>2</sup> will be climate-resistant forests) and about 250 km of the free-flow Dnipro river. Such a large ecosystem restoration can become a decisive Ukrainian contribution to the European Union ecosystems revival by 2030.

On the other hand, if the project of the Kakhovske Reservoir restoration, which requires the destruction of all the mentioned square kilometers of natural ecosystems, will be implemented, this is categorically not in line with the ideas of sustainable development. Therefore, the natural processes of recovery will significantly influence the decision-making in Ukraine and its support by the partner states.

In fact, the scale of these processes is already impressive. A comparison of MODIS thermal imaging data for the year 2023 with similar ones of previous years shows that all areas where hostilities were/are being conducted, as well as mined, have turned into large-scale overgrowth with vegetation. Thus, intensive spontaneous vegetation overgrowth, caused by the local population outflow local population and the economic influence cessation of economic influence, including plowing and pesticides use, is already taking place on an area about 1 million hectares. In the short-term perspective undoubtedly there are significant component of invasive plant species, but native perennial species will gradually displace them over time.

Currently, it is not known how long the occupation will last, let alone its demining. According to preliminary estimates of the Cabinet of Ministers of Ukraine, announced in 2022 - more than 70 years. In this case carrying out demining, there may already grow a 70-year-old forest on the aftermost territories, and mines will be buried deep in the ground under tree roots. So already now the expediency of complete demining can be questioned and we offer not to plan it for the most injured territories and around protected areas. Spontaneous ecosystem restoration there can become a powerful contribution of Ukraine into state tasks on preservation of degraded lands, as well as international obligations in the field struggle from climate change.