







## Green rebuilding of Ukraine

**WEBINAR #6** 



## War and the green recovery:

How to rebuild the economy without destroying the environment? How to restore the environment without limiting economic recovery?



UWEC Expert, Director Ukrainian Nature Conservation Group





Combat during cleansing of Adriivka

Video: <u>военная хроника III Отдельной штурмовой бригады</u>

What changes require restoration?

- Territories are physically damaged (craters, destroyed cities, trenches, fires, and military maneuvers)
- Infrastructure destroyed
- Destruction of sites people and ecosystems depend on for life (e.g. Kakhovka Reservoir)
- Soil pollution
- Depopulation of an area
- Area covered with mines
- Inaccessible due to territories being occupied
- Restoration is delayed and destruction continues due to natural factors





## Changed landscapes in need of post-war restoration





Flooded areas after the Irpin River dam was destroyed

Destroyed forests (including in Chornobyl Biosphere Reserve)





Completely burned forests and lands with military fortifications



Map of Ukrainian agricultural landscapes in the context of Russian military aggression. The darker color indicates Ukrainian agricultural landscapes located in risky agriculture zones.



#### What does "Green recovery" mean?



Satellite image showing extensive revegetation along the front line.

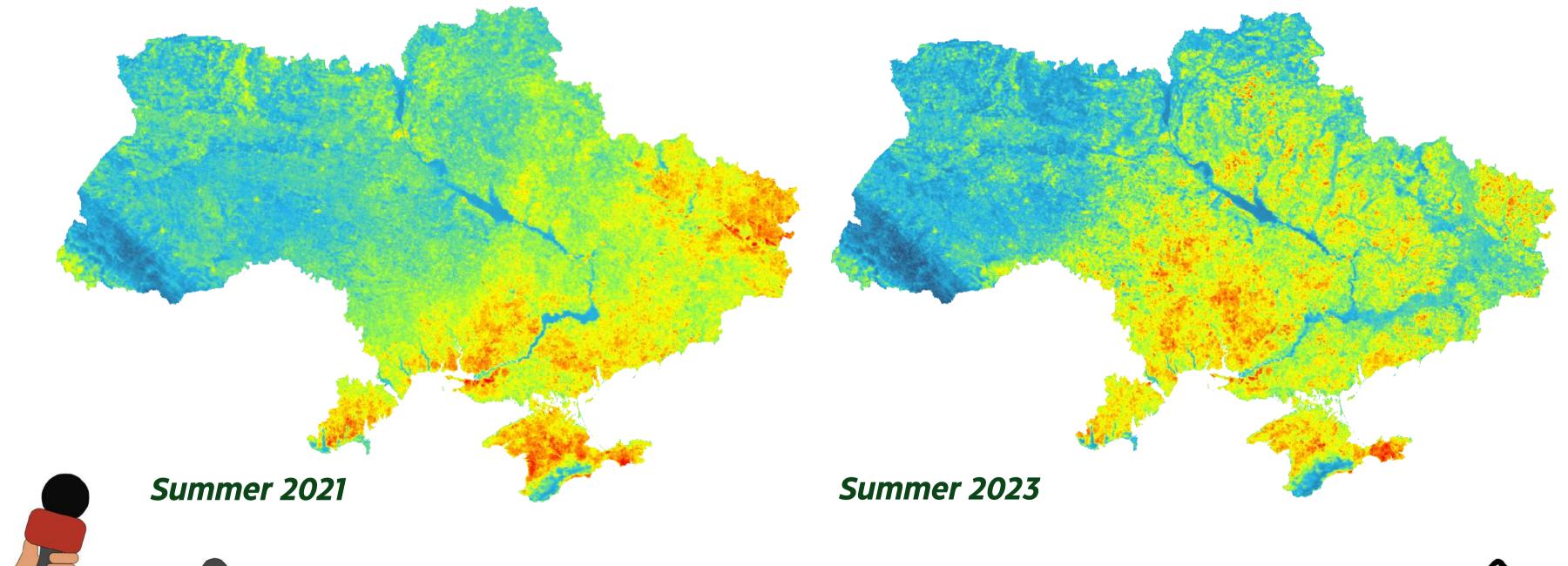
- Infrastructure reconstruction
- **De-mining**
- Land and vegetation remediation
- Supporting the recovery of ecosystems
- > Spontaneous regeneration of natural ecosystems
- Economic regeneration throughout Ukraine that meets "green" standards



So far, conversations about green recovery have not included ecosystem restoration. Other nations will experience it as consequences of the war.



## **Daytime surface temperatures**





Andriivka, Donetsk region during liberation in August 2023 and in September 2023.

In summer, no visible vegetation or even small tree branches are visible.

After a few weeks, massive growth of invasive plant species are easily spotted.











Irpin River valley, 3 months after the Irpin dam's destruction

> Plans to rebuild Ukraine shaped by solutions for Irpin >>>





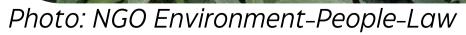






September 2023 NGO Environment-People-Law expedition















Most common introduced plants that are the first to invade damaged and abandoned areas in Ukraine:

a) Canadian horseweed (Erigeron canadensis) b) Canada goldenrod (Solidago canadensis)

c) Common ragweed (Ambrosia artemisiifolia)









## Conclusions about damaged areas

Subsequent fate of damaged areas after deoccupation should be considered through the lenses of:

Economic utility of de-mining and environmental safety

Potential to use lands to realize European goals in the fight against climate change and for biodiversity conservation



De-mining non-polluted areas and return them to usefulness

De-mining polluted lands for use in mining and building materials

De-mining and/or including land in expanded nature conservation areas

Create "red zones"



### **Conclusions about restoration processes**

Any recovery for Ukraine will require significant funding but also demand large quantities of building materials (sand, stone and gravel, lumber) – these are all sourced in ecosystems.

Standards should be implemented to guarantee every restoration donor or investor that:

Natural resources will not be destroyed during building material extraction

Emerald Network areas will not be damaged by mining or restoration work

Recovery and extraction projects will meet EU standards



Restoring Ukraine's nature post-war: Hopes and risks >>>



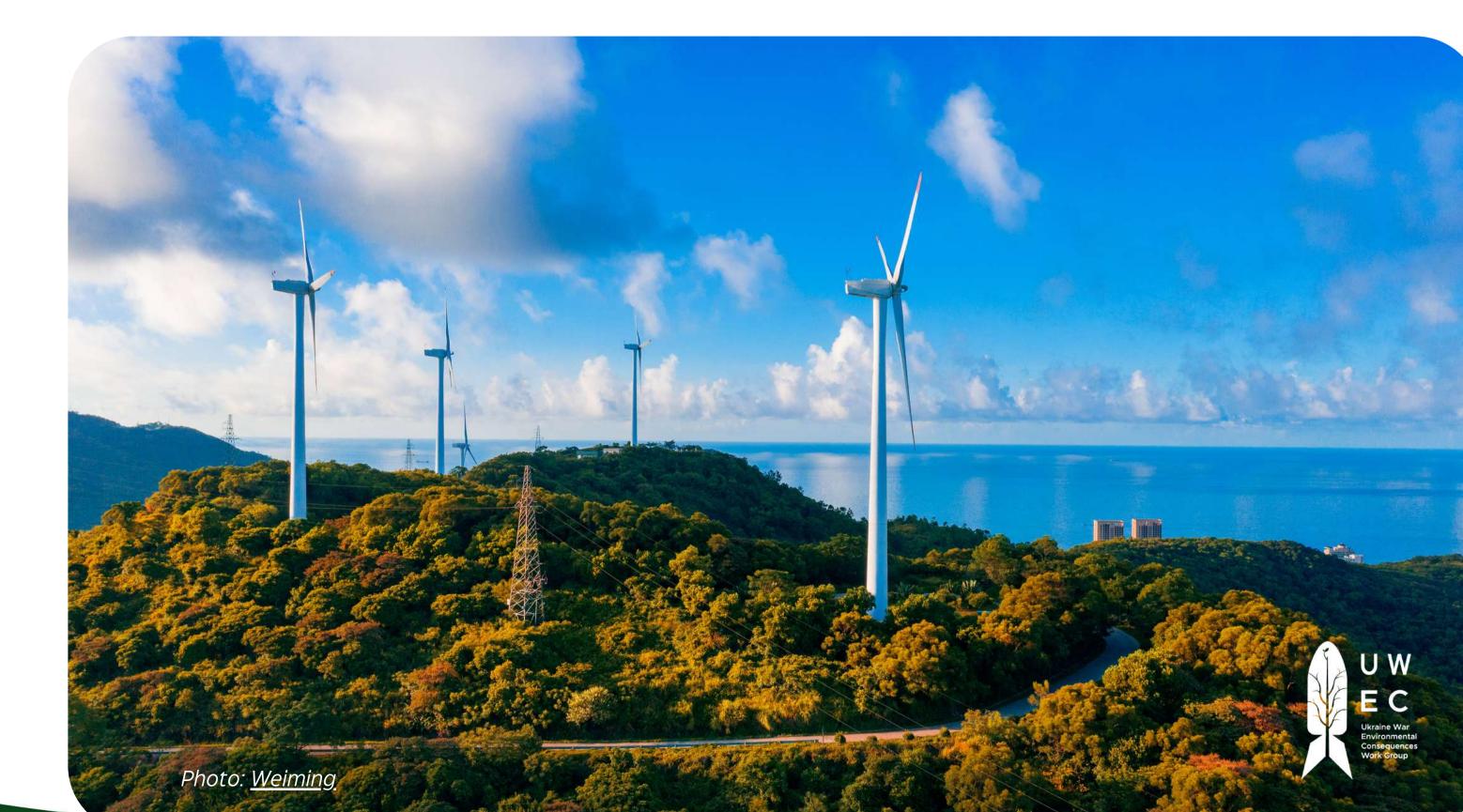


#### **Torsten Wöllert**

Ukraine Support Group at the European Commission



## **European Union support for Ukraine's green recovery**





# Thank you for your attention!



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We love to hear from you.



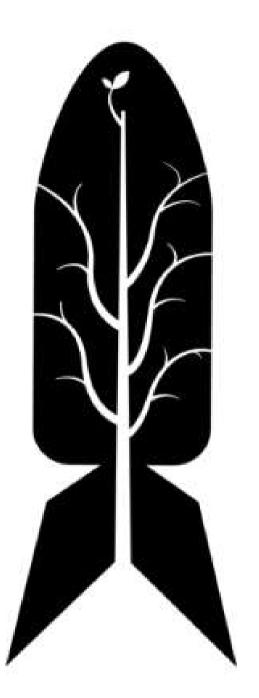
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