

Connecting with Nature for the Benefit of Mankind. For 190 years.

Models for Sustainable Development in Times of War

First results of a workshop with Ukrainian Biosphere Reserves



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Open Seminar "Environmental Damage Assessment. Post-war Recovery"
Organised by Chornobyl Radiation and Ecological Biosphere Reserve, NGO "Ecological Space 2020"

Overview

- Background
- The workshop
- Results
- Next steps



Background (Why this workshop?)

- Long developed cooperation and friendship
 - Since 2006 excursions and projects with CBR
 - Since 2016 DAAD [projects](#) with UNFU and other BR partners
 - 2019-2021 [Ecosystem-based Adaptation](#) to Climate Change with Ukrainian Biosphere Reserves



Deutscher Akademischer Austauschdienst
German Academic Exchange Service

INTERNATIONAL CLIMATE INITIATIVE (IKI)





Background

- [Biosphere Reserves Institute](#) (BRI)
at HNEE
- Since 2019



International Master's course
Biosphere Reserves
Management (BIOM)



Doctorate Programme
Research in, for, and with
biosphere reserves



Research Group
Coordinates biosphere
reserves' research & transfer

Background

- support BRs in their transition towards being
model regions for sustainable development
- More than “just” a Protected Area

**Cooperation and
communication**

**Learning and
training**

**Ideal sites for
sustainability
research**

**Socio-ecological
systems approach**

**Social & economic
transformation**

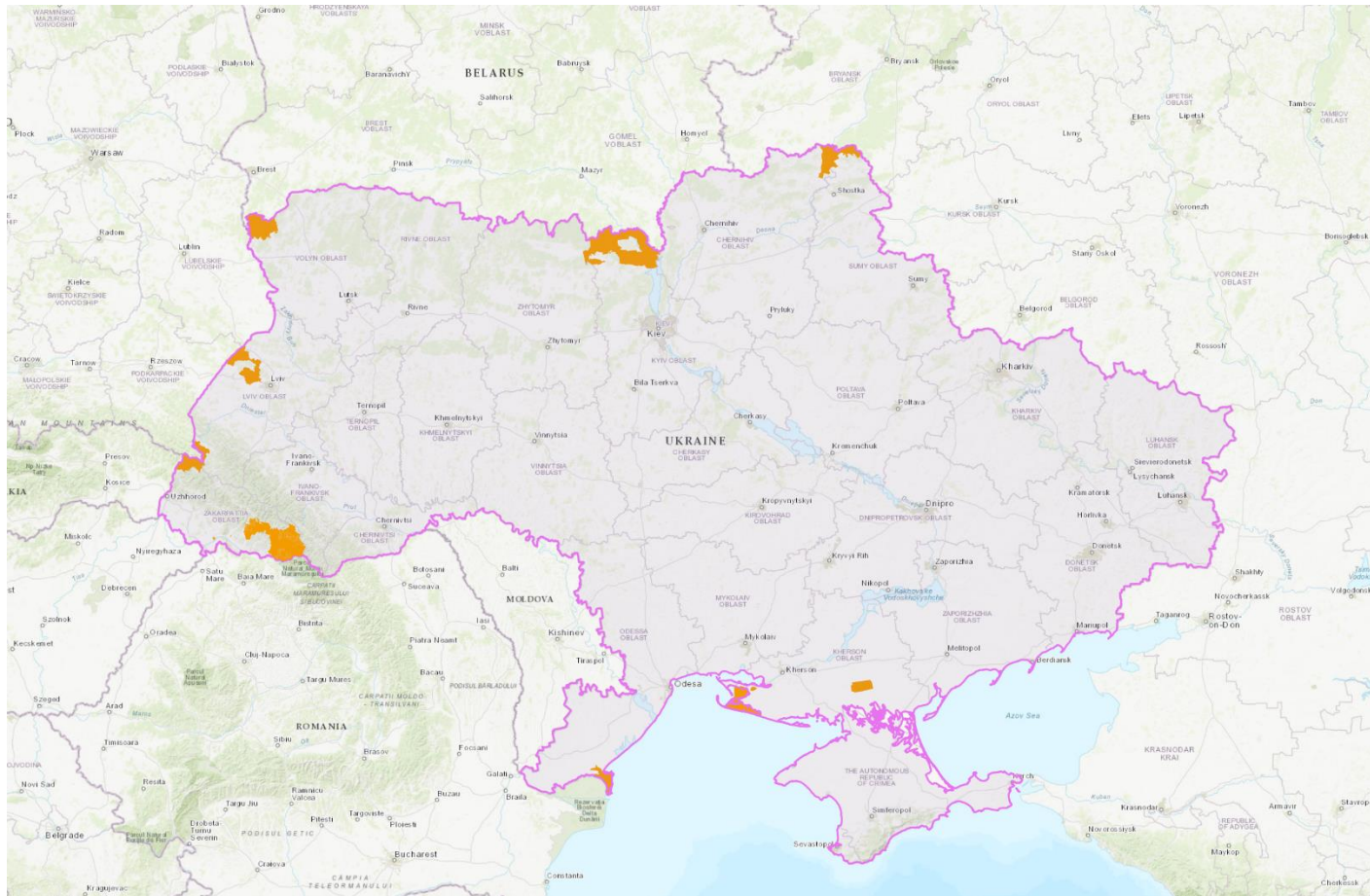
**Participatory
governance models**

Co-Existence

**A network of > 700
sites worldwide**



Ukrainian Biosphere Reserves





	Sunday 03/09/23	Monday 04/09/23	Tuesday 05/09/23	Wednesday 06/09/23	Thursday 07/09/23	Friday 08/09/23	Saturday 09/09/23
Morning 9:00-12:00	Arrival in EW	● Welcome by Prof P. Ibisch (aula) ● Setting the scene (introductions, agenda, goals setting, tour through the campus)	● Conflict transformation KonKoop (Nafisa Mirzojamshedzoda)	● Mental health (Kateryna Shkuropat) psychological impact of climate crisis and an increasing uncertainty of the future	● Ecosystem restoration (Pierre Ibisch)	● Research needs TLN network (Yuliya Nikitchenko) - Eberswalde Declaration ● Synthesis and Way forward	Departure
		Lunch	Lunch	Lunch	Lunch	Lunch	
Afternoon 14:00-17:00	Arrival in EW	● Situation analysis ● Presentations by biosphere reserves & PA representatives ● Synthesis of insights of current state, challenges and risks	● Travel to Lenzen (Elbe) ● Welcome and introduction	● Excursion in the Elbe River Landscape Biosphere Reserve (Sonja Biwer BUND Visitor Centre Burg Lenzen) ● History, remembrance and processing as a local action	● Travel to Eberswalde	● Bundestag visit meeting with MP Niklas Wagener	Departure

Workshop

- 12 participants from BRs and PAs across Ukraine



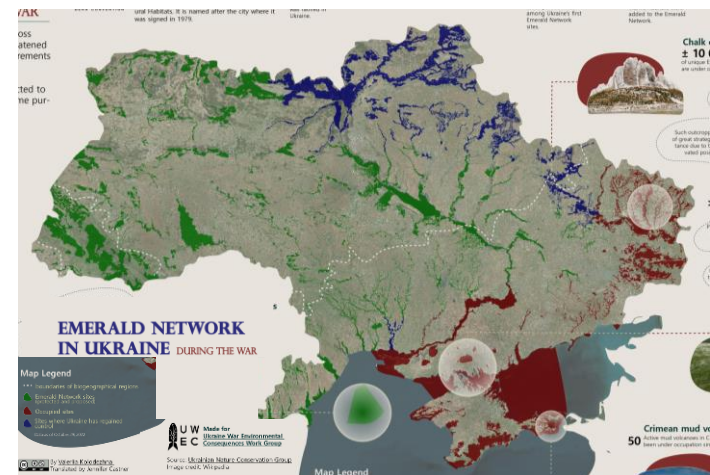
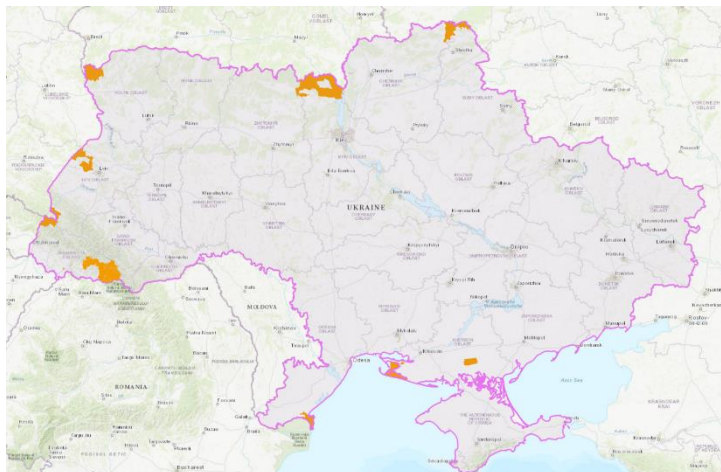
Topic

Presenter / Moderator

Impact of Russian aggression on Ukrainian Protected Areas and biodiversity	Nastia Drapaliuk (UNCG)
Chornobyl Reserve during and after the occupation by Russian invaders	Valeriy Maliarenko (Chornobyl BR)
Problems of the Biosphere Reserve of Roztochcha caused by the war	Oksana Viytyk (BR Roztochya)
Consequences of the war for the Desnyansky Biosphere Reserve	Serhii Kubrakov (Desnianskyi BR)
Askania-Nova Biosphere Reserve during the war, current status and risks	Natalia Korinets (Askania-Nova BR)
Carpathian Biosphere Reserve - activity under challenges caused by the war with russia	Mykola Rybak & Vasyl Pokynchereda (Carpathian BR)

Results

- Varying types of impact and scale
 - no direct military activities (Carpathian BR)
 - some impact through military training areas (Roztochya BR)
 - de-occupation (Chornobyl BR)
 - continued occupation (Askania-Nova BR)
 - constant terror (Desnianskyi BR)



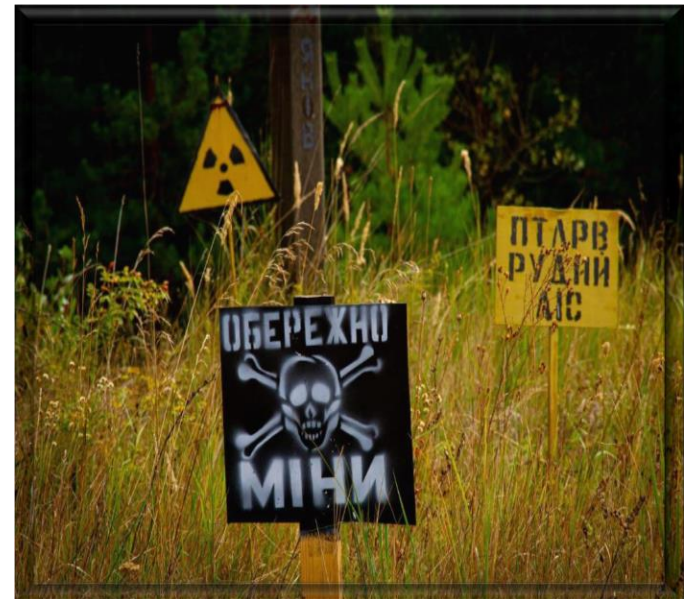
<https://uwecworkgroup.info/emerald-network-in-ukraine/>

Results – Impact on

- Ecosystems
 - Large-scale **fires**
 - **Mining**, contamination with explosives
 - **Pollution** and destruction of the topsoil
 - Changes in the **hydrological** regime



Desnianskyi Biosphere Reserve



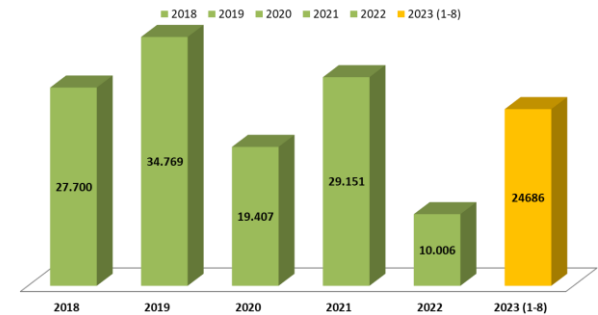
Chornobyl Biosphere Reserve

Results – Impact on

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- Large-scale **fires** in forest ecosystems
- **Mining**, contamination with explosives
- **Pollution** and destruction of the topsoil
- Changes in the **hydrological** regime
- **Succession** of abandoned agricultural land (bush und tree encroachment)
- Intensified **tourism** in safer places
- Intensified **timber** (over-)exploitation

Dynamics of visits to the territory of the Carpathian Biosphere Reserve in 2018-2022.
and for the current period of 2023.



Carpathian Biosphere Reserve



<http://www.restoration-ecology.eu/abandoned-fields/>

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- People
 - Threat of injury and death
 - Destroyed **infrastructure** and public services (private homes, schools, ...)
 - Lost access to **traditional natural resource use** and traditional **livelihoods**



Desnianskyi Biosphere Reserve



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 - Destroyed **infrastructure** and public services (private homes, schools, ...)
 - Lost access to **traditional natural resource use** and traditional livelihoods
- Institutions
 - Destroyed infrastructure (buildings, bridges, roads, energy, ...)
 - Loss of **expertise** and human **capacities** due to mobilisation and migration
 - Reduced **budget**
 - Loss of access/control/area at national border (**2 km buffer**)



Chernobyl Biosphere Reserve



Children's health camp "Desna"

Results – Main Conflicts

- **Already before the war**

- People don't see **benefit** of living in a biosphere reserve
- **Restrictions** in access to natural resources (nature conservation measure)
- Absence of **compensation** mechanisms

- **Since full-scale attack**

- Even more access **restrictions** (mortal and health danger)
- Reduced **land tax** payments to forest communities

-> intensifies tensions with & frustration of local communities

Results – Needs for Recovery and Sustainable Development

- Degraded ecosystems
 - **Monitoring** and analysis of the situation to determine further strategy
 - **Mine clearance** of priority areas
 - **Restoration** of natural hydrological regime
 - Supporting **natural processes** through non-interference
 - Combining natural restoration processes with **economic measures**



[July 2023 vegetation regrowth](#) one year after the draining of Oskil reservoir (Kharkiv Oblast). Photo by S. Veter.



See presentation by P. Ibisch

Results – Needs for Recovery and Sustainable Development

- Biosphere Reserves specific
 - Shifting to **close-to-nature forestry** (e.g. abandonment of clear-cutting)
 - Prioritise restoration measures in regards to **Climate Change** impacted ecosystems
 - Involvement of the **local population** in ecosystem restoration
 - Education for **sustainable agriculture** (forest belts, crop rotation control)
 - Alternative and **energy**-saving technologies
 - Official **legal status** for UNESCO biosphere reserves
 - State program of **compensation** for restricted use
 - Promotion for more **relevant research, projects** and **long-term cooperation** with Ukrainian and international partners

Results – Additional Ideas

- more **horizontal communication** between park/reserves management and the local population (e.g. humanitarian aid).
 - > Building trust
 - > This needs to be transferred to peacetime!
- **Re-wilding** of most destroyed or/and depopulated places
 - > Need for a BR in Eastern Ukraine?
- Variety of challenges and ecosystems
 - > **specialise** and become Ukrainian Showcase regions

Next Steps

- Scientific **publication**
- New **project** in Erasmus+ Cooperation Partnerships programme
 - with Ukrainian universities as main partners and biosphere reserves as associated partners
 - Foster sustainability in recovery of Ukraine (role of universities and BRs)
- **Visit** to the Carpathian region by delegation of the German Bundestag

Щиро Дякуємо за Увагу

