

### Nature, Biodiversity and Health: AN OVERVIEW OF

INTERCONNECTIONS





### Nature, Biodiversity and Health: The interconnections

- Nature provides the basic conditions for human life and human health
- Environments and ecosystems protect human wellbeing
- Pressure on natural environments threatens human health



# COVID-19, nature, environment and health

Nature-based solutions have a role to play to

1) Protect & preserve the source of human health: Nature.

- 2) Invest in essential services in healthcare facilities.
- 3) Ensure a quick healthy energy transition.
- 4) Promote healthy, sustainable food systems.
- 5) Build healthy, liveable cities.
- 6) Stop using taxpayers money to fund pollution.



Prescriptions and Actionables for a Healthy and Green Recovery





### Joining Forces for Health and Nature recovery

May 31, 2021 Event organised by NetworkNature within the EU Green Week

Celine Charveriat, Executive Director, IEEP



Nature provides immense benefits to people's

(IEEP 2021)



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Protected areas have been estimated to provide mental health benefits worth EUR 5.55 TRILLON.

(Buckley et al 2019)



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# Mental health: an increasing share of the disease burden in Europe

- Mental disorders such as depression and anxiety today affect more than 1 in 6 EU citizens representing a massive personal and societal burden.
- Poor mental health is estimated to cost Europe over €600 bn/year or over 4% of GDP of which a third is in direct health care spending.



Sources: Mental health: Fact sheet WHO (2019); ; Health at a Glance: Europe 2018; State of Health in the EU Cycle; World Economic Forum 2020.







#### Determinants/exposure

#### mental health outcomes

Noise

EMF

Heavy

metals

War

conflicts

Epigenetics

Apoptosis

**Synaptogenesis** 

Disasters

Family

Friends

Climate

change



van den Busch M, Meyer Undenberg A. 2019. Annu Rev. Fublic Health 40:239-59

Figure- Top 10 non-communicable diseases causing deaths attributable to the environment in the EU (Source: EEA - Healthy environment, healthy lives, 2018 based on WHO (2016))- Zero Pollution EU-Action Plan, 2021

Source: Van den Bosch, M. et al. Annu. Rev. Public Health 2019. 40:18.1–18.21



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# Determinants/exposure mental health outcomes

Outdoor air pollution: NOx, CO, O3, UFPs, particulate matters, heavy metals	Depression, anxiety, sadness, personality disorders
Climate change: Extreme weather events, acute weather condition (warming-cooling), long- term weather change	Post-traumatic stress disorder, nostalgia, solastalgia, distress, anxiety, depression
Urban environment: Built environment, housing, crowding, poor indoor air quality, lights	Distress, aggression, trauma, poor cognitive development
Noise pollution: Transport, industry, surroundings	Annoyance, poor sleep, cognitive impairment
Chemical pollutants and pesticides: POPs BFA, BAP, EDCs	Depression, anxiety, ASD&ADHD, behavioural disorders
Metals, microplastics and pharmaceuticals in the environment	Depression, anxiety and stress, hormonal disruption









#### The impact of COVID-19 on mental, neurological and substance use services:

results of a rapid assessment



Fear, worry and stress after are more frequent and more severe after an emergency.

Released Oct. 2020



Countries are responding to the disruption of MNS services in multiple innovative ways, including telemedicine, teletherapy interventions, hotlines and training for health care providers.



Series COVID-19 & response strategy

SCIODal Barcelone

Authors: Ximena Goldberg, Oriana Ramirez, Matilda van den Bosch, Liudmila Liutsko and Berta Briones (ISGlobal)\*

### **Figure 2.** The Burden and Course of Mental Health Conditions after the Start of the COVID-19 Pandemic Will Vary with Different Risk Factors.

Mental health problems directly related to the infection will decrease as the control of the spread advances. However, mental health conditions that are associated with trauma and socioeconomic impact of the pandemic will increase even after population immunity is achieved.



https://www.isglobal.org/en/-/-es-la-salud-mental-la-pandemia-despues-de-la-covid-19-

# GREEN SPACES AND COVID-19

### With the COVID-19 pandemic,

good quality green spaces are more needed than ever in cities because they offer:



LOWER RISK OF COVID-19 TRANSMISSION OUTDOORS ° Î ↔ Î

SPACE FOR SOCIAL DISTANCING



BENEFITS FOR PHYSICAL AND MENTAL HEALTH



REDUCTION OF AIR POLLUTION AND NOISE LEVELS

SGlobal

### Develop a dedicated EU MENTAL HEALTH & WELL-BEING strategy.

Integrate

which consider inter-linkages between mental health and the environment.

Ensure mainstreaming of health and well-being considerations in the implementation of the EUROPEAN GREEN DEAL. HOW TO REFLECT The LINKS BETWEEN Mental Health AND Nature?

As for act the

As part of Europe's forthcoming zero-pollution action plan, ensure that those furthest behind



## **Nature Based Solutions for Europe's recovery**

- So far a **missed opportunity?** Around 1% of funding dedicated to recovery amongst major economies (Vivid Economics)
- A source of **rapid job creation** (Natura 2000=4.4 million jobs)
- Towards a **green care economy** (DDR and climate adaptation, water management, food security)
- **Multiple public health benefits** (reduction of pollution, promotion of healthier lifestyles, improved mental health , AMR resistance; zoonose prevention)
- **Social justice dimensions** (low-income populations most at risk post COVID; low-skilled jobs, job deprived areas or as part of a just transition e.g. Zeche Zollverein )







# **Policy recommendations**

1- **Boost public and private investments in NBS**: taxonomy, biodiversity spending targets within RRF plans; integration of biodiversity as part of the fit for 55% package; increase the prioritisation of ESIF towards biodiversity (e.g. CAP strategic plans)

2- Make mental health is prioritised within RRF plans

2-Role of EC and DG reform in **guiding and assessing RRF plans from MS** and supporting structural reform

3- Fix the fundamentals to bounce forward

- Greener trade for a green recovery policies addressing negative spill over effects of European demand (land-use change, agricultural expansion and wildlife trade)
- Accelerate implementation of key EU legal biodiversity commitments
- Adopt ambitious EU legislation for mandatory ecosystem restoration
- Tackle drivers of pollution: Opportunity of the zero pollution action plan and other key initiatives within the green deal









# References

https://ieep.eu/publications/nature-based-solutions-and-their-socio-economic-benefitsfor-europe-s-recovery

https://ieep.eu/uploads/articles/attachments/c2cc2d58-d8a0-4dee-b45e-57a7dfa2620d/Mental%20health%20and%20environment%20policy%20brief%20(IEEP%20 &%20ISGLOBAL%202021).pdf?v=63778955421

https://ieep.eu/publications/role-of-a-reformed-european-semester-within-a-newsustainable-economy-strategy

https://ieep.eu/uploads/articles/attachments/174483b8-faec-4644-aded-9776fbca1b7c/BUILDING%20ON%20NATURE%20-%20SDG%203.pdf?v=63789247230 www.ieep.eu @IEEP\_eu Celine Charveriat