Nature-based Solutions

for Adaptation to Climate Change in different coastal Typologies:

MAIN ELEMENTS OF THE GUIDELINES

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UN environment programme

Mediterranean Action Plan
Barcelona Convention

PAP/RAC

PAP/RAC National Focal Points meeting

23-24 May 2023, Split, Croatia

Why NbS?

Last IPCC - Report

Preservation

Improvement and management

Restoration

Establishing of new systems

Einstein:
“Look deep into nature, and then you will understand everything better”

UN environment programme | Mediterranean Action Plan Barcelona Convention | PAP/RAC

1. INTRODUCING NBS

2. TYPOLOGY OF THE COASTS

3. EXEMPLARY SITES

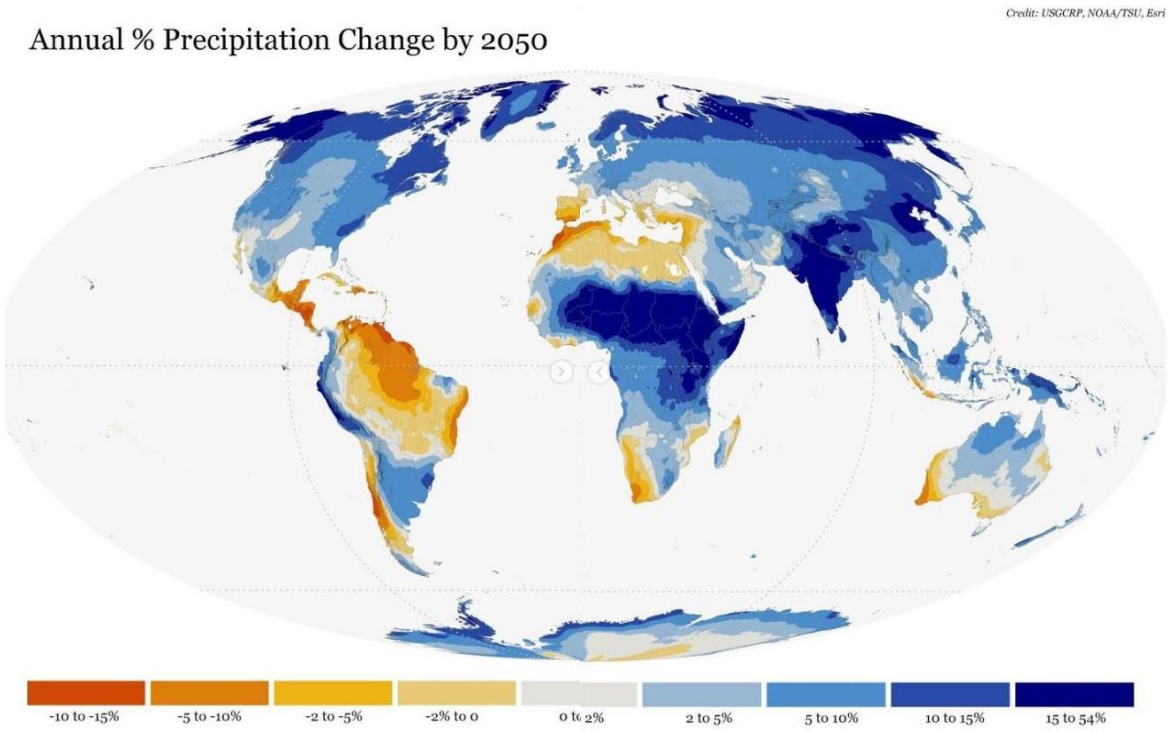
4. RELATED TOPICS

5. KEY RECOMMENDATIONS

IPCC-REPORT

According to the latest IPCC-Report „human-caused climate change has contributed to desertification and exacerbated **land degradation, particularly in low lying coastal areas, river deltas, drylands** and in permafrost areas worldwide. Nearly **50% of coastal wetlands have been lost** over the last 100 years, as a result of the combined effects of localised human pressures, sea level rise, warming and extreme climate events.

Urban greening can provide local cooling. Combining green/natural and grey/physical infrastructure adaptation responses has potential to reduce adaptation costs and contribute to flood control, sanitation, water resources management, landslide prevention and coastal protection Responses to ongoing sea level rise and land subsidence in low-lying coastal cities and settlements and small islands include protection, accommodation, advance and planned relocation



TYPOLOGY OF NBS

Preservation / Improvement and management / restoration – creation of:

- Soils and vegetated land
- Coastal forests and woods
- Coastal riparian buffers
- Wetlands
- Marshes
- Dunes
- Coastal freshwater ponds
- Seagrass meadows
- Brown algal forests

EXEMPLARY SITES

Morocco – Al Hoceima (Bay + NP)

Tunisia – Kerkennah Archipelago (Plan Bleu)

Egypt – Lake Bardawil (regreening Sinai, COP27)

Albania – Kune Vain Lagoon

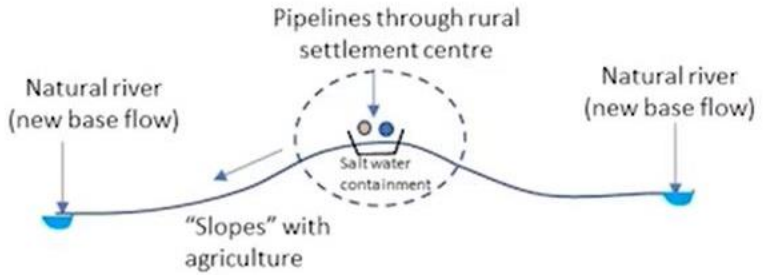
Croatia – rain gardens City of Pula

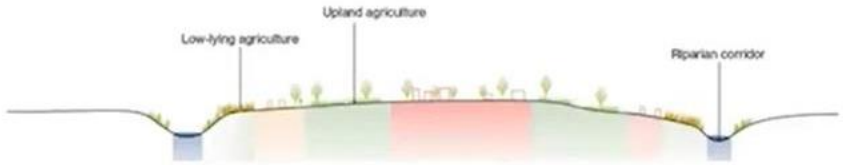
Malta – Santa Maria wetland

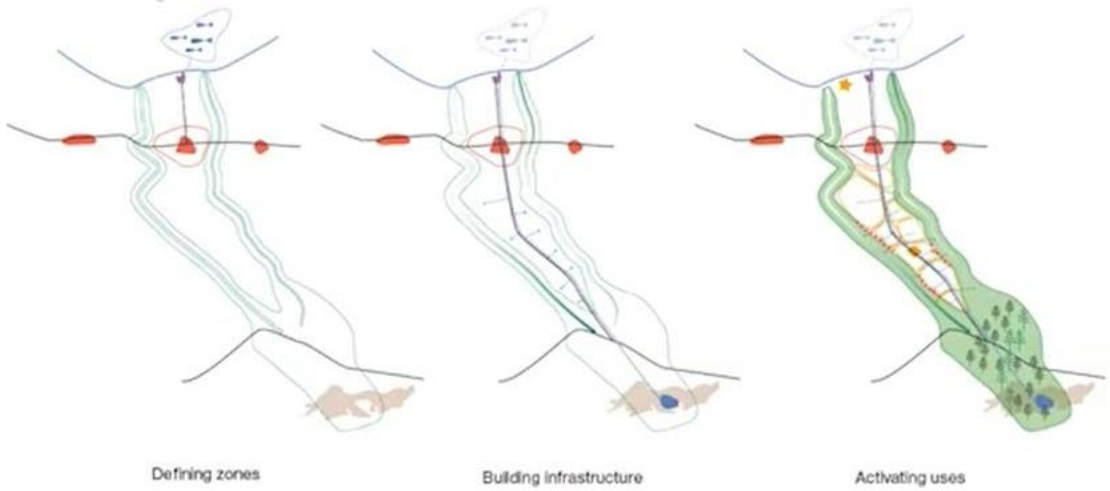
Barcelona – biodiversity report

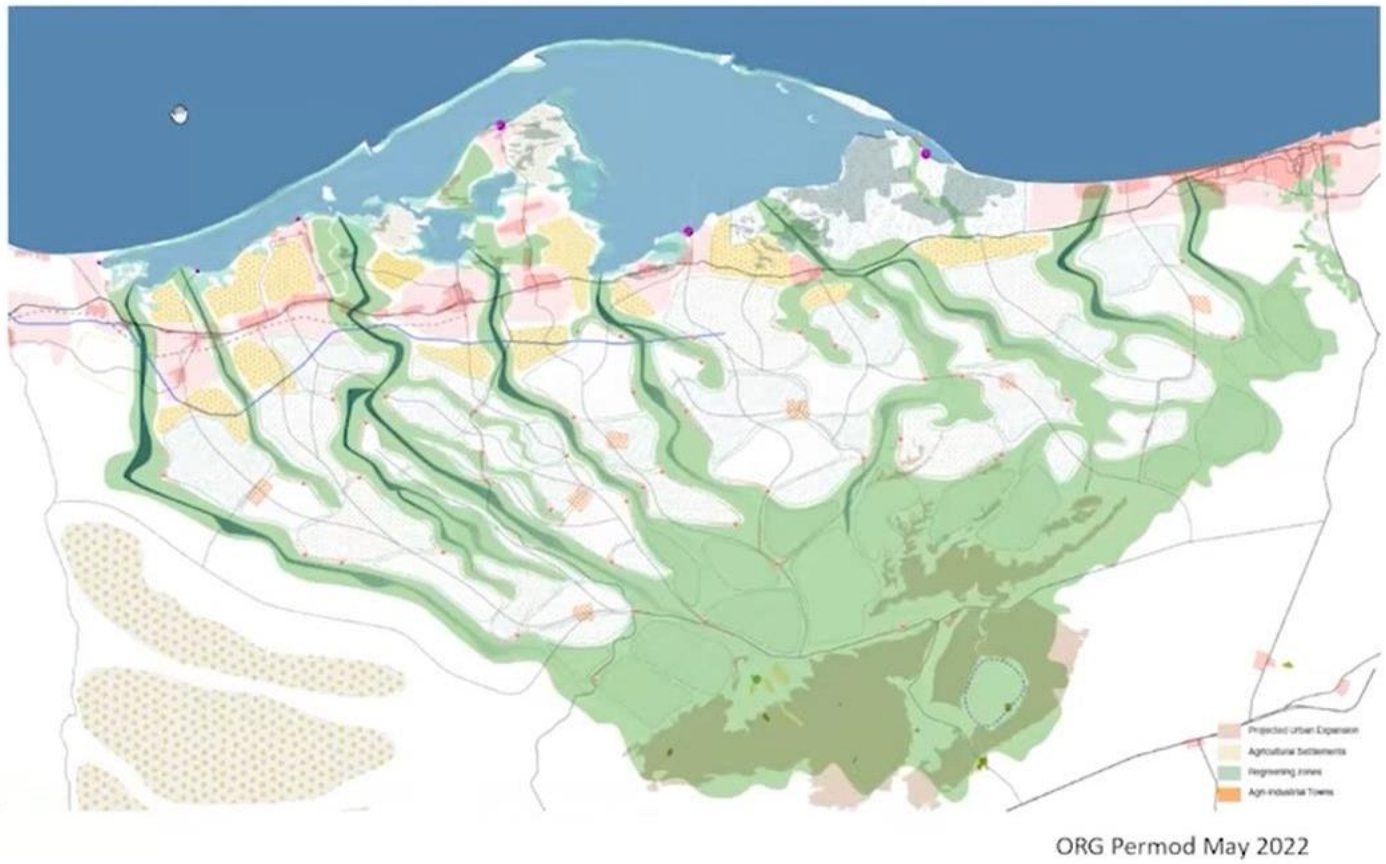
Napoli - phytoremediation Posillipo....

Lake Bardawil - Egypt









KEY BIODIVERSITY AREAS IN THE MEDITERRANEAN

IDENTIFYING FRESHWATER KBAs

75% OF THE 167 IDENTIFIED KBA ARE LOCATED OUTSIDE PROTECTED AREAS

SETTLEMENTS infrastructure

Establishing of:

- Porous pavements
- Green roofs
- Biodiverse / Brown roofs
- Rain gardens
- Vegetated swales
- Rainwater harvest zones
- Detention ponds
- Infiltration trenches

RELATED topics (boxes):

SDGs

UN-Habitat sustainable urbanisation

30 x 30 concept

Invasive species

Planning as a tool

Sea-level rise

Setback zones

Coastal aquifers

Innovations in agricltural landscapes

Open coastal landscapes

Brownfields

Intentionally unmanaged areas

Innovations in agricltural landscapes

Rainwater solutions

Old trees protection

Rewilding + pollinator initiative

Ecological sanitation

List of abbrevations

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Directory

Acknowledgements

Glossary

Key References

Thank you!

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