

**UN**  
environment



WCMC

United Nations Environment  
World Conservation Monitoring Centre



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# INSIGHTS FROM EARTH OBSERVATION IN PROTECTED AREAS – ECOPOTENTIAL PROJECT

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A lush, dense tropical forest scene with various green plants, including palm trees and broad-leafed species, filling the frame. The lighting is bright, suggesting a sunny day. The text 'RECOMMENDATIONS FOR POLICIES' is overlaid in white, bold, uppercase letters within a white rectangular border on the right side of the image.

# RECOMMENDATIONS FOR POLICIES



**INCORPORATE**



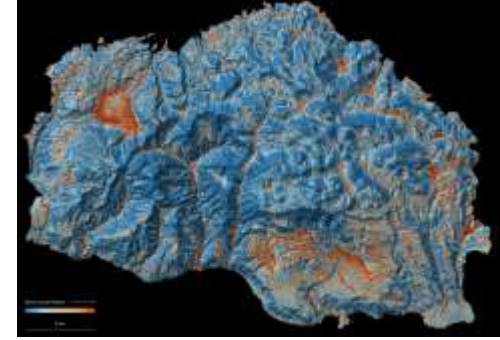
**SUPPORT**

**INVEST**

**EXPAND**

## Recommendation 1

# Expand the use of Earth Observation to monitor and manage ecosystem services



- Ecosystem Services

- Essential for economy & also society

- Earth Observation

- New spectrums of understanding
  - Temporal
  - Spatial
  - Radiation

### → Great potential of Remote Sensing & in-situ measurements

- To quantify, assess, measure & monitor ecosystems, activities and ecosystem services
- To **INTEGRATE** Earth Observation with policy development and achievement

## Recommendation 2

# Invest in the integration of Remote Sensing and in-situ measurements

- In-situ data are critical
  - Remote Sensing and in-situ data are complimentary
  - Some variables cannot be measured remotely

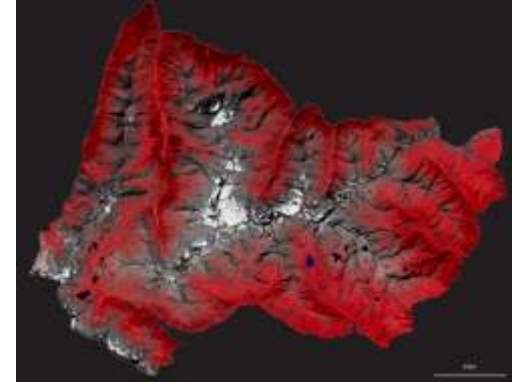
## → Opportunity for

- **INTEGRATION** of data, activities and knowledge
  - e.g., eLTER and Lifewatch ERIC



## Recommendation 3

# Incorporate Remote Sensing indicators in future environmental strategies



- Remote sensing data
  - Proven
  - Reliable

## → Potential to

- **INTEGRATE** into targets and indicators in future strategies
  - The utility will increase over time - more data & improved analysis
  - Remote sensing based indicators
    - cheap, simple, accurate and comparable
  - Can enhance compliance and alignment with policy goals

## Recommendation 4

# Support innovative ideas alongside proven mechanisms of impact and scientific advancement

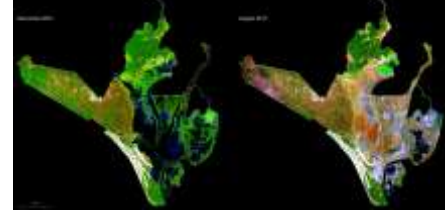


- Potential for technological innovation in the use of Remote Sensing and Earth Observation
- Innovative methods and tools should continue

### → Opportunity exists

- for the **INTEGRATION** of environmental management and technology
- For the EU to stay on the forefront of innovative uses of satellites and other Earth Observation

## Recommendation 5



# Increase experience sharing and information flow among stakeholders, and consider a coordinated strategy approach

- Disparities exist among environmental management institutions on the use of Earth Observation
  - Different levels of technical expertise and hardware access
- Mutual benefits are found in experience sharing
  - e.g., networks like LifeWatch, ERIC and GEO/GEOSS

## → Potential to create and support

- Communities of practice to **INTEGRATE** the varying levels and types of expertise
  - Centralized (EU wide/national/regional) technical capacity centres could support Protected Areas and decision makers with Earth Observation application



# KEY MESSAGES

Earth  
Observation  
for  
Environmental  
Management

INCORPORATE

SUPPORT

INVEST

EXPAND





**THANK YOU VERY MUCH**

Antonello, Fiona & the Ecopotential Team

## We put biodiversity at the heart of decision-making

- Providing authoritative information in a way/format that is **useful** to decision-makers
- There are many sorts of users of biodiversity data!
- Some users might appreciate a bit of “data packaging”

Local, regional and global scale biodiversity data are needed by:

### National governments

Policy reporting, spatial planning, natural capital accounting, screening (to site concessions), ...

### Inter- & Non-Governmental Organisations

Policy development & implementation, assessments (e.g. IPBES), indicators & targets (e.g. Aichi, SGD), spatial conservation planning, ...

### Corporate sector

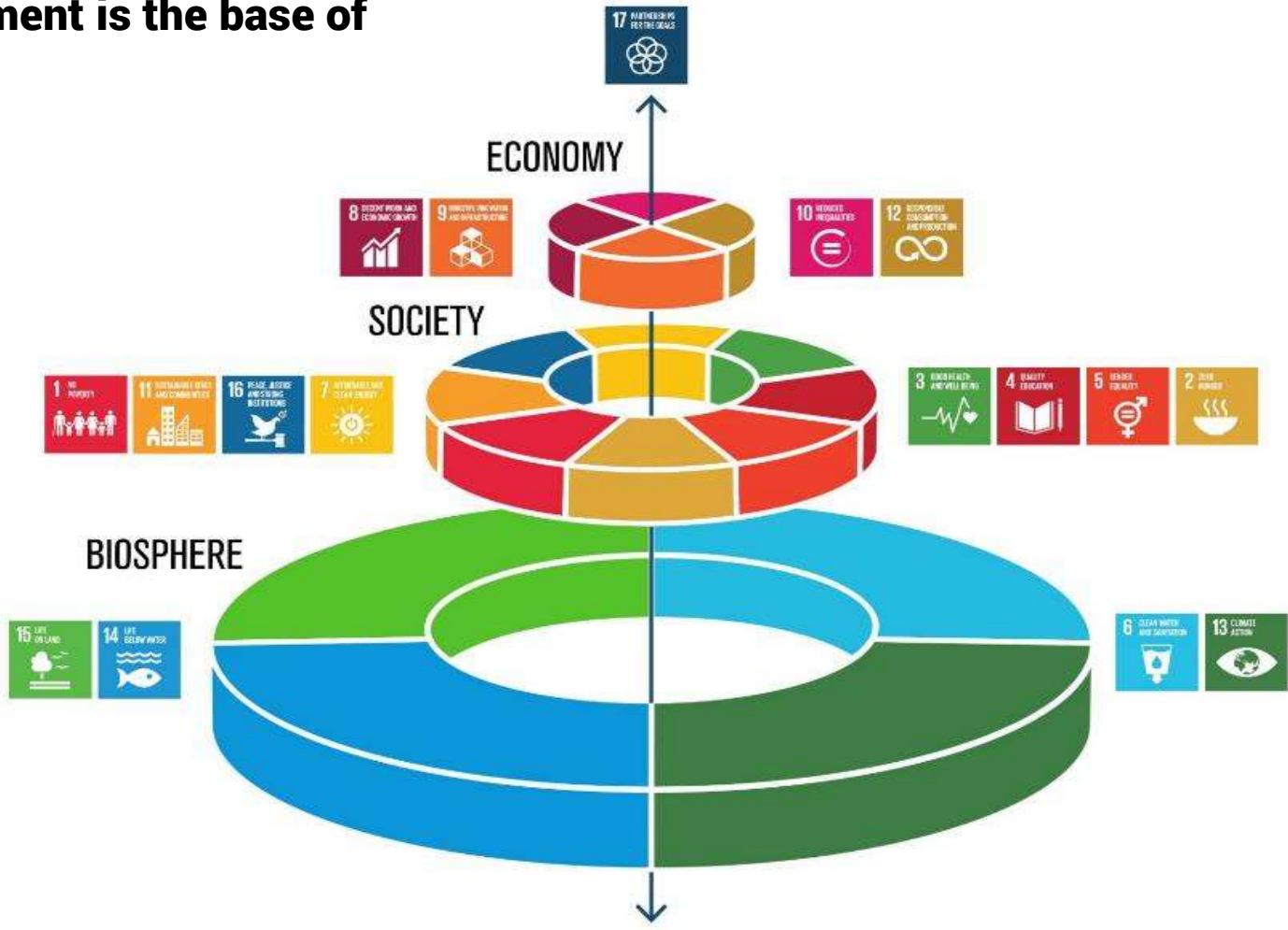
Screening (concession bidding), Environmental Impact Assessment, ...

### Research bodies

Mapping, species distribution modelling, blue carbon assessment, ecosystem service valuation, protected area design...



# The Environment is the base of the SDGs



Graphics by Jenar Lukman/ATA

# What are ecosystem services?

Normally divided into four groups:

## Benefits people obtain from ecosystems

Millennium Ecosystem Assessment (2005)



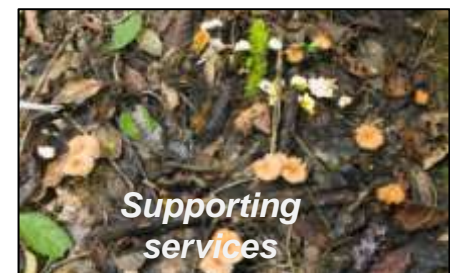
*Regulating*



*Provisioning*



*Cultural*



*Supporting services*

# What are the main terrestrial and freshwater ecosystem services?

Carbon

Water supply

Flood prevention

Pollination

Eco-tourism

Non-timber and timber products

Cultural stuff....







# Title style

## First level style, to be used for sub headings

- Second level, to be used for main bullet points
  - Third level, to be used for supporting text to the bullet points
- Fourth level, to be used for sub bullet points

Fifth level, to be used for image or diagram captions