

Setting the stage and introduction to the EO day

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Earth Observation Day
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Convention on Wetlands (Ramsar, Iran, 1971)
1st Meeting of the Conference of the Contracting Parties
Cagliari, Italy
24-29 November 1980

Recommendation 1.5: [National Wetland Inventories]

The Conference

AWARE that Contracting Parties to the Ramsar Convention undertake to formulate and implement their planning so as to promote the wise use of wetlands in their territory;

EMPHASIZING that, as mentioned in the World Conservation Strategy, wise use of wetlands involves maintenance of their ecological character, as a basis not only for nature conservation, but for sustainable development;

CONVINCED that establishment of comprehensive national policies would benefit the wise use of wetlands, and that such policies should be based on a nationwide inventory of wetlands and of their resources;

NOTING that some Contracting Parties have made such an inventory and drawn up such policies;

CALLS ON Contracting Parties and on Governments which might be interested to prepare inventories of wetlands and of their resources as soon as possible as an aid to the formulation and implementation of national wetland policies.

Convention's publications and guidance documents

Ramsar
Handbooks
4th edition

Handbook 14 Data and information needs



Ramsar
Handbooks
4th edition

Handbook 13 Inventory, assessment, and monitoring



Ramsar
Handbooks
4th edition

Handbook 15 Wetland inventory



The use of Earth Observation for wetland inventory, assessment and monitoring

An information source for the Ramsar Convention on Wetlands



www.ramsar.org



A new toolkit for National Wetlands Inventories



NWI, a long-standing priority for the Convention



Resolution 1.5 (1980) on ‘National wetland inventories’ = “the establishment of comprehensive national policies would benefit the wise use of wetlands, and [...] such policies should be based on a nationwide inventory of wetlands and of their resources”

1st Convention’s Strategic Plan 1997-2002 encompasses a priority area of focus on NWI. Same in 4th Strategic Plan. Questions on NWI in National reporting to COPs.

Resolution VII.20 (1999) = importance of comprehensive national inventory as the vital basis to achieve the wise use of wetlands

Resolution VIII.6 (2002) = adoption of a ‘Framework for Wetland Inventory’ prepared by STRP. See Handbook 15.

What's new?



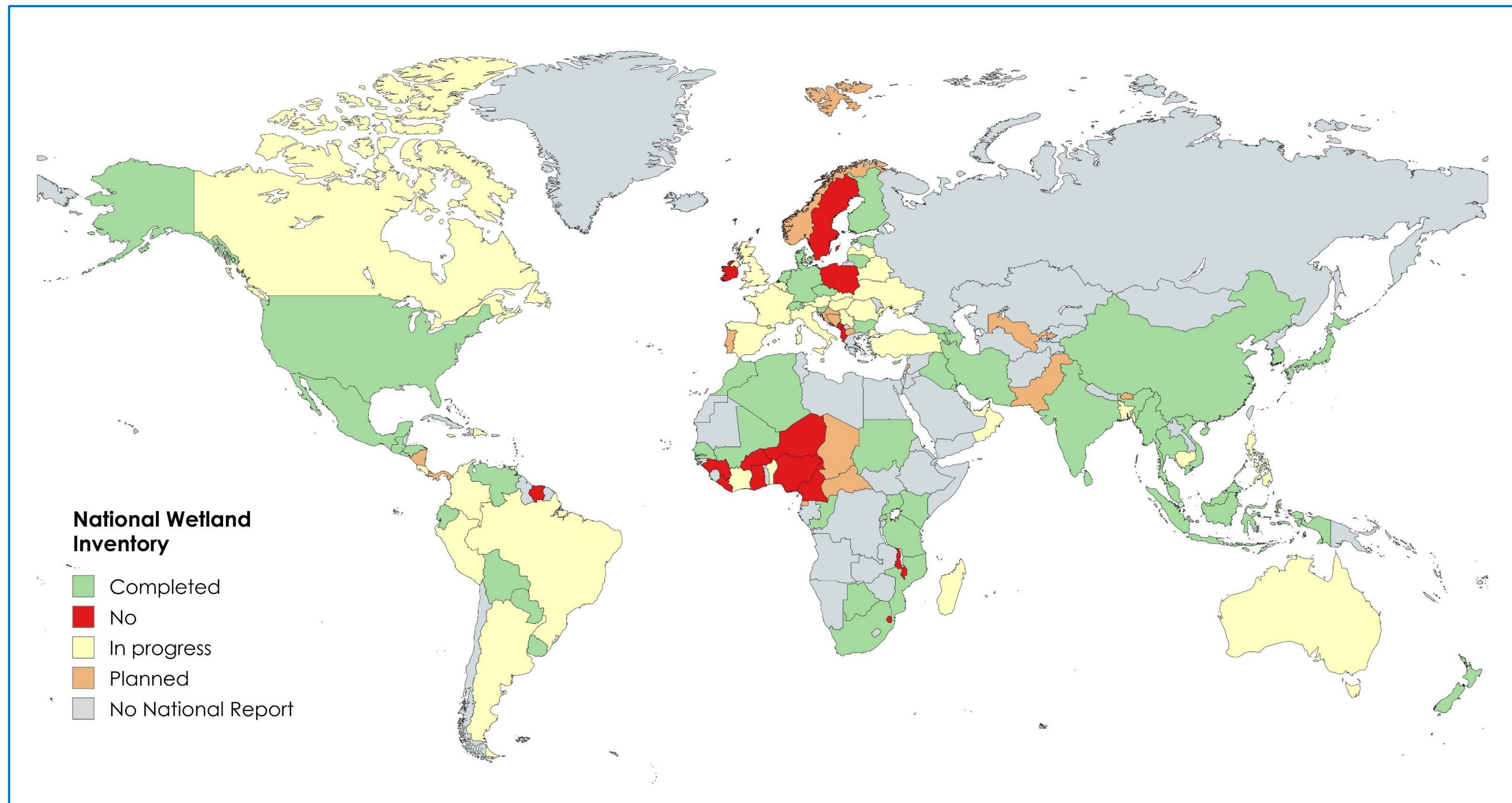
Fast evolution of EO techniques and data analysis

Enhanced professionalisation of national teams and environmental institutions across all regions

Increasing demand for national reporting towards global targets in fields adjacent to wetland issues (climate, biodiversity, land degradation neutrality targets, etc.)

Increasing threats on wetlands due to human activities (e.g. plastics pollution) and climate change

Convention on Wetlands = co-custodian of indicator 6.6.1 on wetland extent change // Lack of progress in NWI implementation (STRP25).



Reports to COP14:

46% of Contracting Parties reporting to COP14 had completed an NWI.

This finding was very similar to those for COP13 (44%) and COP12 (47%).

52% of the Parties provided data on wetland extent (SDG Indicator 6.6.1) for COP14.

National Wetland Inventory support mechanism to Contracting Parties



- The Standing Committee in **Decision SC62-34** took note of the Secretariat's proposal for a structured approach towards national wetland inventory support mechanism to Contracting Parties.
- 13 in-depth interviews with Contracting Parties were conducted in Fall 2023.
- More details on lessons learned from NWI processes and priorities and needs of Contracting Parties to the Convention are summarized in SC62 Doc.9, SC63 Doc.10, SC63 Inf.2, SC64 Doc. 10 (available on the meeting page).

Convention on Wetlands develops a National wetland inventory support mechanism to Contracting Parties

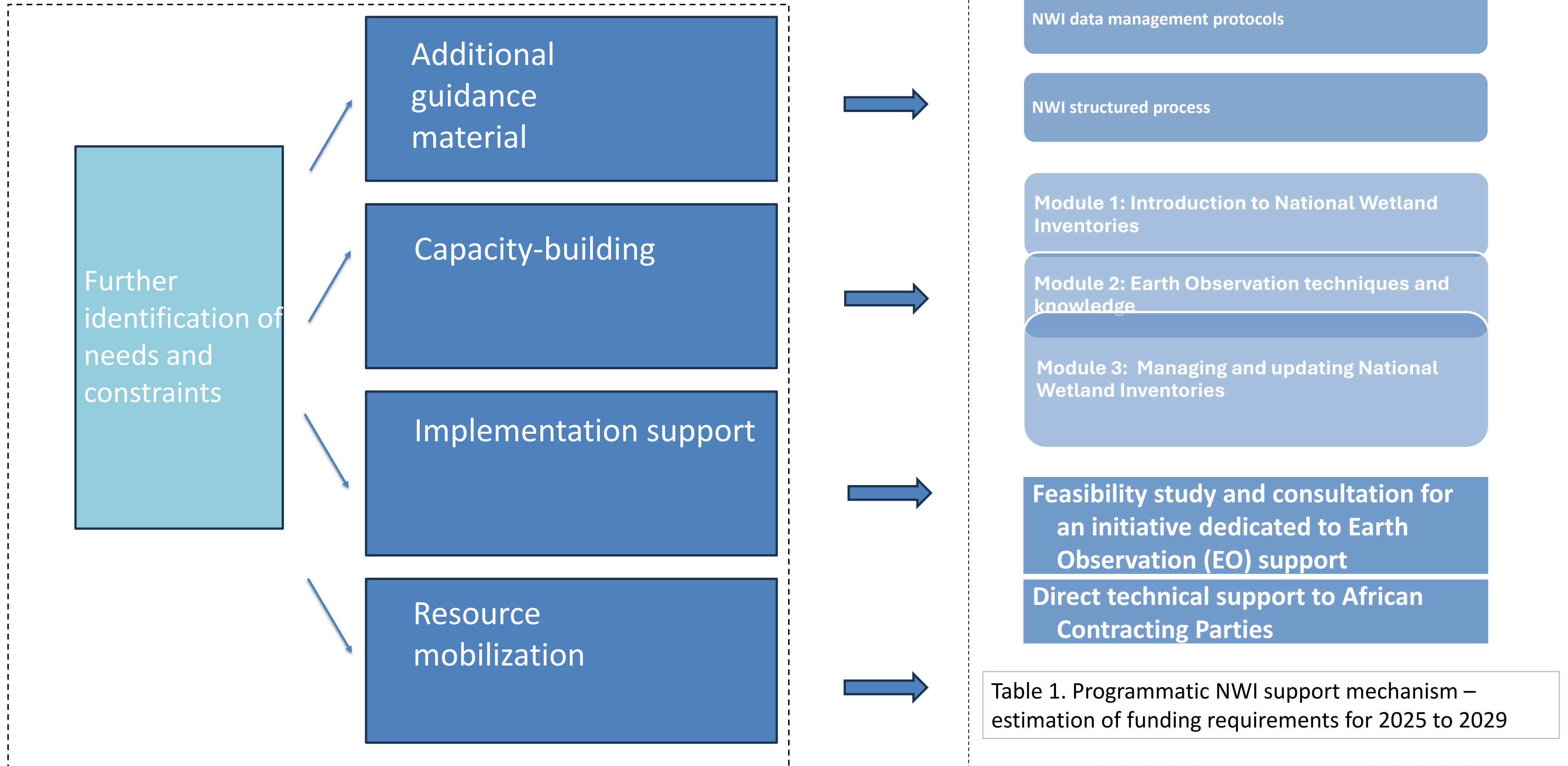


Table 1. Programmatic NWI support mechanism – estimation of funding requirements for 2025 to 2029

Our ambition



- Avoid unnecessary complexity by gradually refining NWI products along a NWI structured process (Tier-based approach)
- Clear definition of the objectives assigned to each product, clear repartition of roles and responsibilities for scientifically-robust approaches and methods
- Tapping into existing databases and accessible technologies
- Breaking silos = integration of global climate, biodiversity and land degradation neutrality targets in NWI process
- Investing in “institutional” learning process = requires long-term engagement!



Insights from National Wetland Inventory processes

- **Multiple Objectives:** Diverse goals (wetland conservation, SDG Indicator 6.6.1, restoration, but also water resources, potentially flooded areas,...).
- **Phased Approaches:** Start small (e.g., wetland extent) and expand scope (e.g., ecological character) over time. Anticipate use and update phases.
- **EO Integration:** Useful for mapping but challenges with small/forest-covered wetlands. Difficulties with data management phases, particularly for updates.
- **Capacity Building:** Gaps in GIS/EO skills and resources remain significant. Identify partner organizations (national space agency, local universities, etc.).
- **Data Standards:** Importance of harmonized protocols for data collection and interoperability at sub-national level.

Why Earth Observation for NWIs?



1. Scalable and cost-effective

- EO enables large-scale wetland mapping, even in remote or inaccessible areas.

2. Addressing data gaps

- Offers consistent datasets for tracking wetland extent and progress on SDG 6.6.1 and KM-GBF targets.

3. Enhanced precision

- Combines satellite imagery, LIDAR, and ground-truthing for accurate monitoring.

4. Harmonization and reporting

- Facilitates harmonized protocols for regional and global data sharing.

5. Informed decisions

- Supports conservation, restoration, and sustainable wetland management.

A clear mandate from the Contracting Parties

- **Convention on Wetlands Resolution XIII.10:** REQUESTS the Secretariat, subject to the availability of resources, to **investigate the options and associated costs for working with earth observation organizations**, including the Group on Earth Observations (GEOS), Group On Earth Observations Biodiversity Observation Network (GEOBON), the Biodiversity Observation Network in a Box (BONinaBOX) toolkit and the Global Biodiversity Information Facility (GBIF), to put such data and monitoring tools at the disposal of Contracting Parties for national wetland inventories or monitoring of changes to Sites (para. 23).
- **Decision SC63-30:** The Standing Committee [...] requested the STRP, working with the Secretariat, to **organize a consultation with the earth observation community** on development of an initiative to foster dialogue, knowledge exchange and guidance for earth observation in support of wetland inventory, assessment, monitoring and conservation.

Expected outputs from the EO consultation



- Provide recommendations on further developing EO-based initiatives within the framework of the Convention.
- Enhancing the capacity of Contracting Parties to implement EO solutions in wetland inventory, monitoring and management,
- Fostering long-term partnerships with the EO community.
- Identify scientific and technical needs that may be addressed in the STRP 2026-2028 work plan.

How the consultation is being conducted

1. Targeted interviews

2. Earth Observation Day

3. Report preparation

⇒ The Chair of the STRP will deliver a verbal update at SC64, providing key insights from the consultation.

⇒ May include suggested changes to the proposed draft resolution on the future implementation of scientific and technical aspects of the Convention for 2026-2028 (SC64 Doc.19).



Findings from the targeted interviews

1. Tools and data gaps

- Wealth of EO tools and datasets exists, but limited capacity and low awareness hinder their effective use.
- Spatial indicators and harmonised country-level datasets are critical to support NWIs and global reporting.

2. Institutional and policy support

- Clear mandates for systematic wetland monitoring and assessment are lacking at both national and international levels.
- Need for technical centers to guide implementation and ensure sustainability.

3. Capacity building and knowledge sharing

- Tailored training modules and localised approaches are essential for effective EO adoption / uptake.
- Stakeholders need to be involved early in tool development to ensure relevance and usability.

Findings from Targeted Interviews



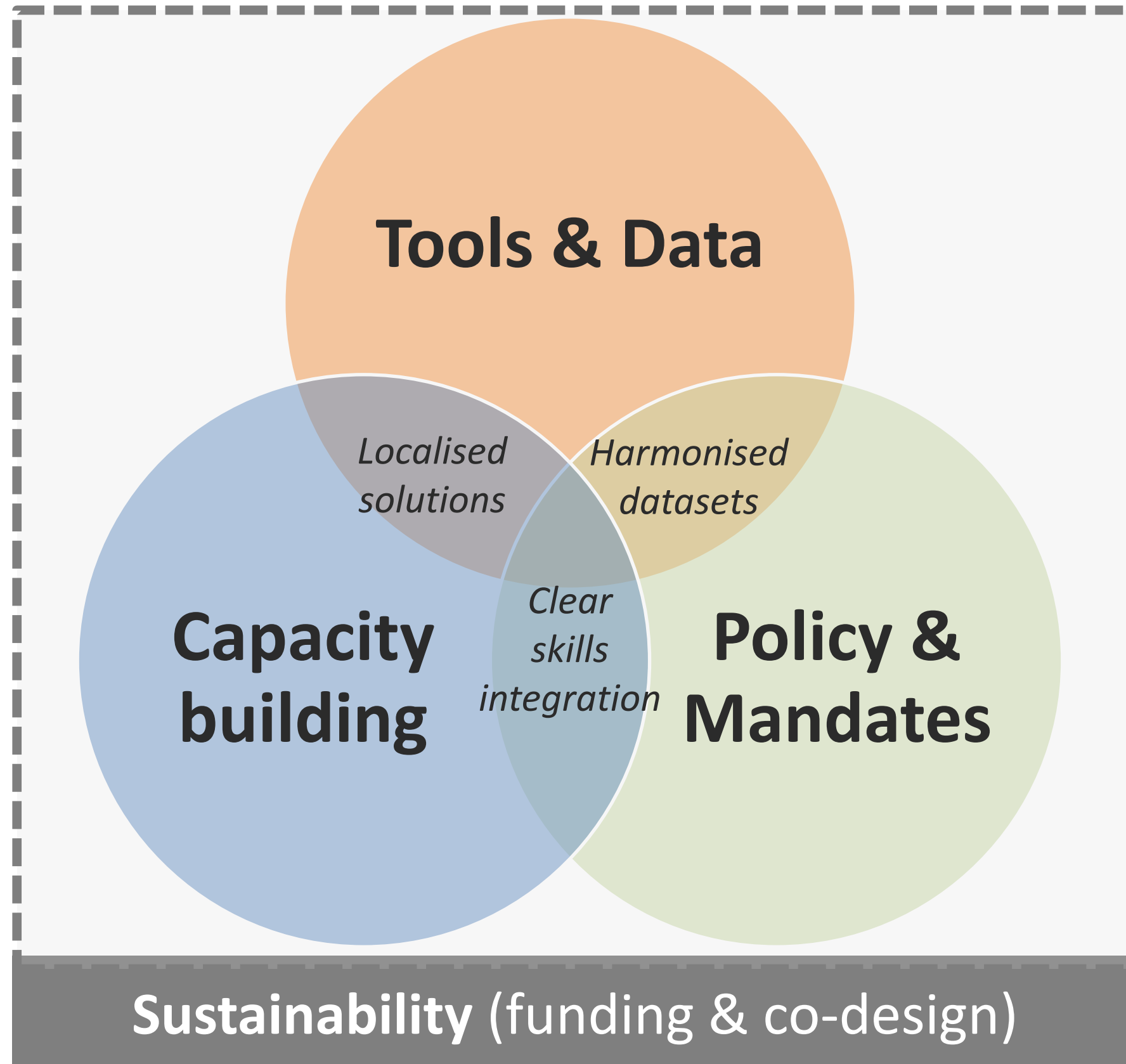
4. Sustainability challenges

- EO projects often rely on short-term funding, limiting long-term impact.
- Co-design processes and integration with national systems can enhance project viability and ownership.

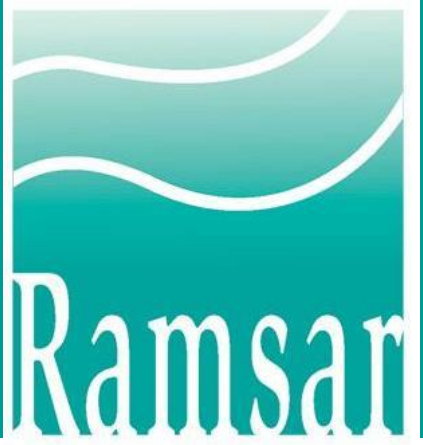
5. Bridging disconnects

- Significant gaps between what tools are available and what stakeholders need.
- Strengthened connections between National Focal Points (NFPs) and EO initiatives can help drive tailored solutions.

Findings from Targeted Interviews



Introduction to the EO day



Programme

09:15 - 9:45: Setting the stage and introduction to the EO day

09:45 - 12:00: EO technology, tools and new initiatives

10:45 - 11:15: *Coffee break and networking*

12:00 - 13:00: *Lunch Break*

13:00 - 13:40: Regional experiences, gaps and needs

13:40 - 15:00: Panel Discussion

15:00 - 15:30: Concluding Session



An aerial photograph of a meandering river in a lush green landscape. The river winds through the terrain, creating a series of oxbow-like curves. The surrounding land is a mix of vibrant green and light brownish-grey, suggesting a natural, possibly wetland or floodplain environment. A semi-transparent teal rectangular box is overlaid on the right side of the image, containing the text "Thanks for your attention!".

Thanks for your attention!