Dialogue with Permanent Delegations to UNESCO on the future Medium-Term Strategy 2022-2029 (41 C/4)

- Pillar 3 of UNESCO's Strategic Transformation -

16-17 July 2019

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NATURAL SCIENCES

Harness science, technology, innovation and knowledge for sustainable development

Research and training in life sciences, climate change, natural disasters and water quality.

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

Science, technology, engineering and mathematics education (STEM); and education for sustainable development (ESD) as part of quality education.

Use STI to improve food and water security.

2 ZERO HUNGER

5 GENDER EQUALITY

GLOBAL PRIORITY

Increase the participation of women in STI, including through STEM and Gender Advancement (SAGA).

Support inclusive Science, Technology and Innovation (STI) systems and strengthen the capacity of Member States to monitor and critically assess STI for sustainable development.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Improve water security through water research, water resources management, education, capacity building and monitoring.

6 CLEAN WATER AND SANITATION

Harness STI to address poverty-related challenges, such as acess to clean energy, agriculture, health and water services.

1 NO POVERTY

7 AFFORDABLE AND CLEAN ENERGY

Improve access to clean energy through inclusive STI systems.

Build sustainable cities that are water secure, protect ecosystems and are resilient to climate change and natural disasters.

11 SUSTAINABLE CITIES AND COMMUNITIES

13 CLIMATE ACTION

Increase resilience to climate change and natural disasters, by providing scientific data and climate information services

15 LIFE ON LAND

UNESCO-designated Biosphere Reserves and UNESCO Global Geoparks as learning sites for biodiversity and sustainable management of natural resources.

Foster access to STI, provide targeted capacity building, strengthen multi-stakeholder partnerships and support data monitoring and reporting.

17 PARTNERSHIPS FOR THE GOALS

8 DECENT WORK AND ECONOMIC GROWTH

Strengthen institutional and human capacities in science, technology and innovation to foster decent work and economic growth.

Promote international scientific cooperation and peacebuilding, including through the management of transboundary water resources and transboundary Biosphere Reserves and UNESCO Global Geoparks.

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

10 REDUCED INEQUALITIES

Narrow the STI gap between developed and developing countries to ensure that all countries fully benefit from scientific and technological progress and innovation.

Enable conservation and sustainable use of the ocean through the Biosphere Reserves in Marine, Island and Coastal Areas.

14 LIFE BELOW WATER

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

UNESCO-designated Biosphere Reserves and UNESCO Global Geoparks are observatories of responsible consumption and production.

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UN 2030 Agenda – AU Agenda 2063 - Paris Agreement – Sendai Framework

Sendai Framework for Disaster Risk Reduction

2015 - 2030

Paris Agreement: Main sectoral policy

Agenda 2063 – Main continental policy

Natural Sciences for the 2030 Agenda

Harnessing the **sciences, including the basic sciences, technology**, and **innovation** and **knowledge** for sustainable development

Advancing science for sustainable management of **natural resources, disaster risk reduction** and **climate change action**

Improving knowledge and strengthening capacities at all levels to achieve **water security**

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Context

(i) failure of **climate change** mitigation and adaptation; extreme weather events;

(ii) **natural disasters**, man-made environmental disasters;

(iii) **biodiversity** loss and ecosystem collapse, and;

(iv) **water** crises.

- pressure on natural resources
- many conflicts and instances of violent extremism have their source in an uneven distribution of natural resources
- people being displaced for lack of water, food and consequently job opportunities

Global risks report 2019
(World Economic Forum)

IPCC

IPBES

WWDRs

Climate change as a socio-economic issue

SIDS and Africa bearing the heaviest burden

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Context

Need for a global science, technology and innovation governance

- science diplomacy (SESAME, Global report on Biodiversity, Water diplomacy);
- international normative framework in STI (open science)

Need for STI policy and evidenced based policies

Technology and knowledge gaps	→ STI policy and capacity building
Global governance in STI, Need for monitoring trends and developments in (STI) governance	→ Science diplomacy + data
30 million researchers and engineers will be needed by 2030	→ Engaging youth in science
Average number of female researchers: 28.8% for the World	→ Address the gender gap in STEM
Evidence based Integrated Policy	→ Robust science and knowledge

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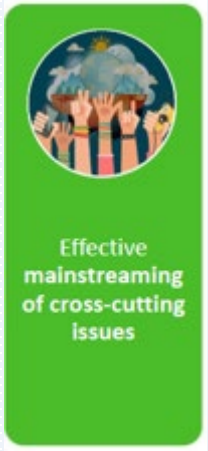
Examples of relevance in the global agenda

- *Highlights of the Final draft of the Political Declaration of the UN SDG Summit* (24 - 25 September 2019)
  - **Harnessing STI, with focus on digital transformation**
  - **Reducing disaster and building resilience**
  - **Investing in data and statistics for the SDGs**

- *MOPAN's Global Performance and Findings:*
  - UNESCO is a **global leader in knowledge and practice**. UNESCO **leads policy development** in a broad range of fields, **Global Geoparks and freshwater use**, […].
  - UNESCO is strong at **mainstreaming gender equality** (e.g. women in science and sport, climate change, and education) and **interdisciplinary issues such as climate change**
  - It has convening roles in relation to **global work on freshwater**



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Convening power of science – Science diplomacy

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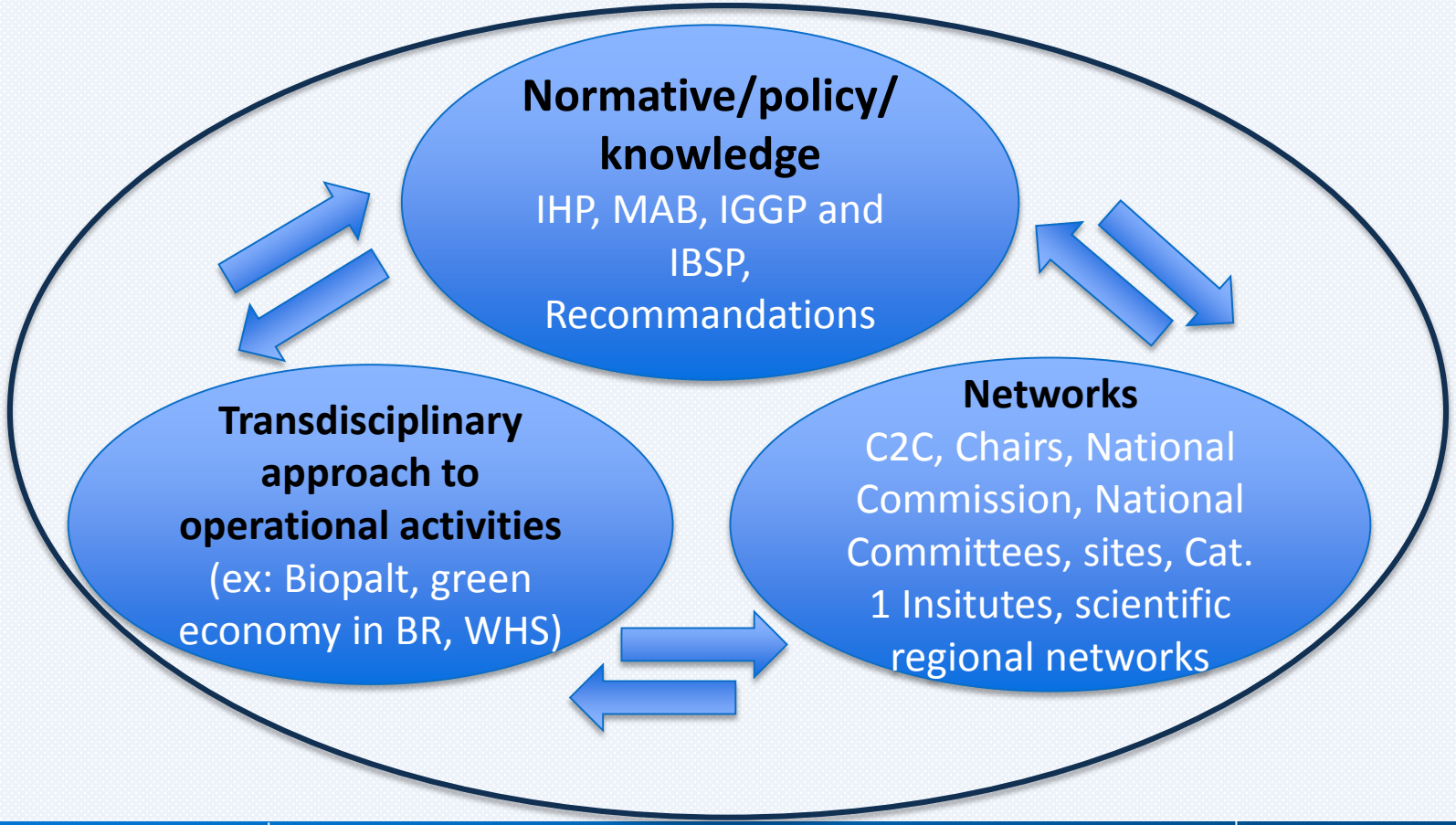

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Future reflection

1. How to better reposition UNESCO in the 2030 Agenda, the 2063 African Union Agenda, the Paris Agreement, the Sendai Framework and the Addis Ababa Action Agenda?

2. How to best ensure **UNESCO's support to the Member States in the implementation** of these Agendas in its various domains? How to best support countries to access Science Technology & Innovation for sustainable development?

3. How to empower **women scientists**?

4. How to **connect UNESCO science structures**? Are tools tailored to address the national science context?

5. What role for UNESCO in the **broad global responses to environmental crises, biodiversity and habitat loss**? How science provides the baseline and the potential solutions?

6. What capacities are needed for **sustainable and peaceful natural resource management**?

7. How we see **Science Diplomacy** fit in with the global UN 2030 agenda?

8. What opportunities for a more **integrated and transdisciplinary UNESCO** activities that are **inclusive, participatory, as well as Climate-neutral and climate-friendly**?

9. What tools do we need to measure impact of the Science initiatives?