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Sustainable
Development
Goals

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Aligning science and policy development with the Sustainable Development Goals

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Jamaica (20.02.2018)

Main domains of action for the next 15 years: the 5 P's

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The SDGs promote action in 5 critical domains of Sustainable Development: **People, Planet, Prosperity, Peace and Partnerships.**





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What is new and different in the new Agenda and related SDGs?

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- They are universal, indivisible and integrated
- An agenda more ambitious and comprehensive than the MDGs, which encompasses several dimensions: economic, social, environmental and that deals with governance / institutional issues
- An Agenda of Rights: the elimination of poverty, equality in access to public services and the participation of all
- A collective process: all stakeholders have something important to contribute (national and local governments, academia, international organizations, civil society and private sector)



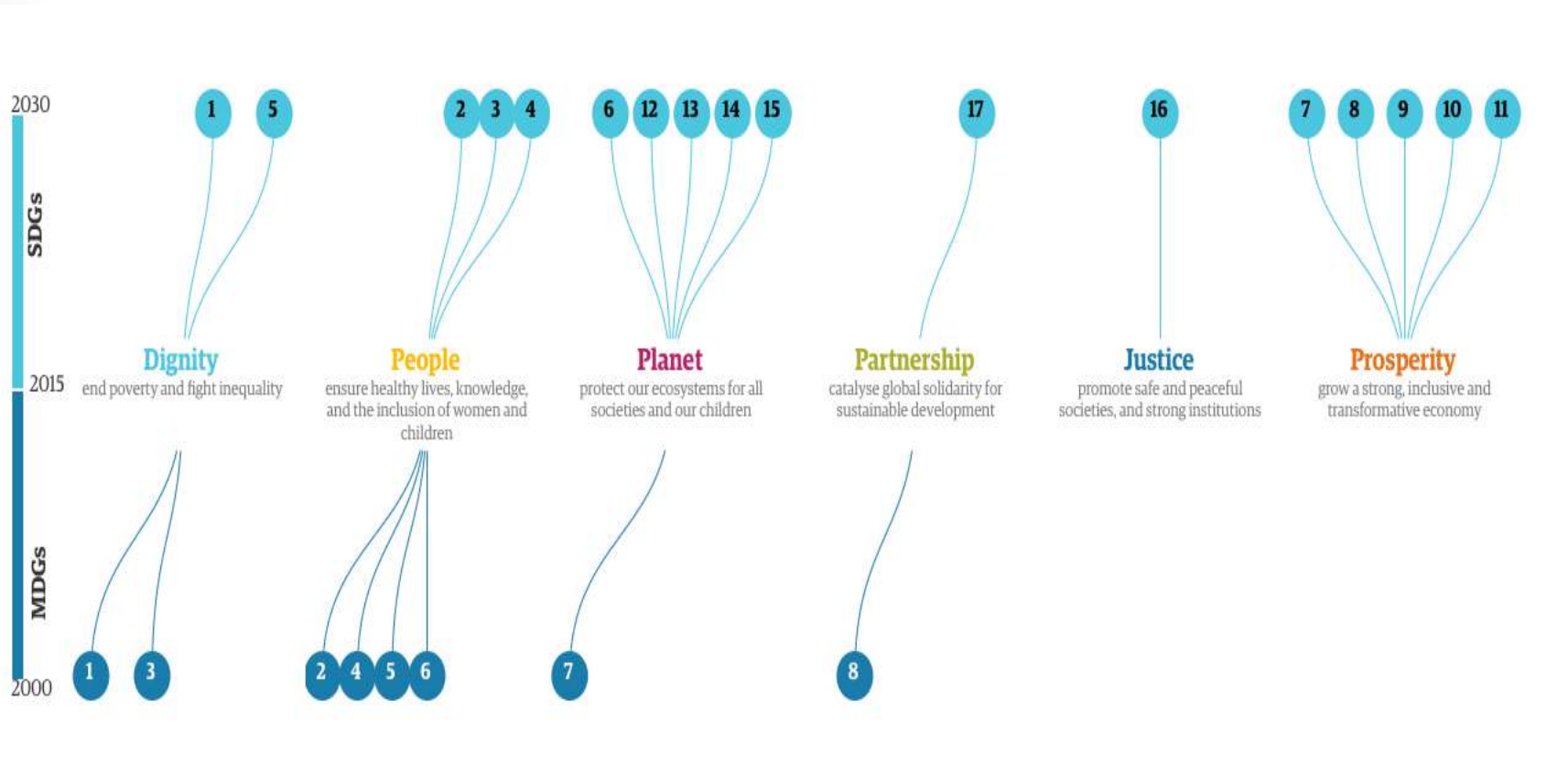


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Transition from MDGs to SDGs

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Source: Website The Guardian, 22.7.2015 <http://gu.com/p/44qvn/sbl>



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The Agenda recognizes the role of STI

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- The fundamental role of STI and ICT
- Stressing the need to build human capacity, skills and knowledge through quality education for all throughout life and research programmes
- As well as access to information and provision of quality data

The achievement of the STI depends on researchers and policymakers, practitioners and stakeholders having access to and being able to share pertinent and accurate information, in particular scientific knowledge

Science is critical to sustainable development as it lays the foundation for new approaches, solutions and technologies to identify clarify and tackle global challenges for the future.

Science provides advise through evidence as the basis for decision-making processes and effective impact assessments

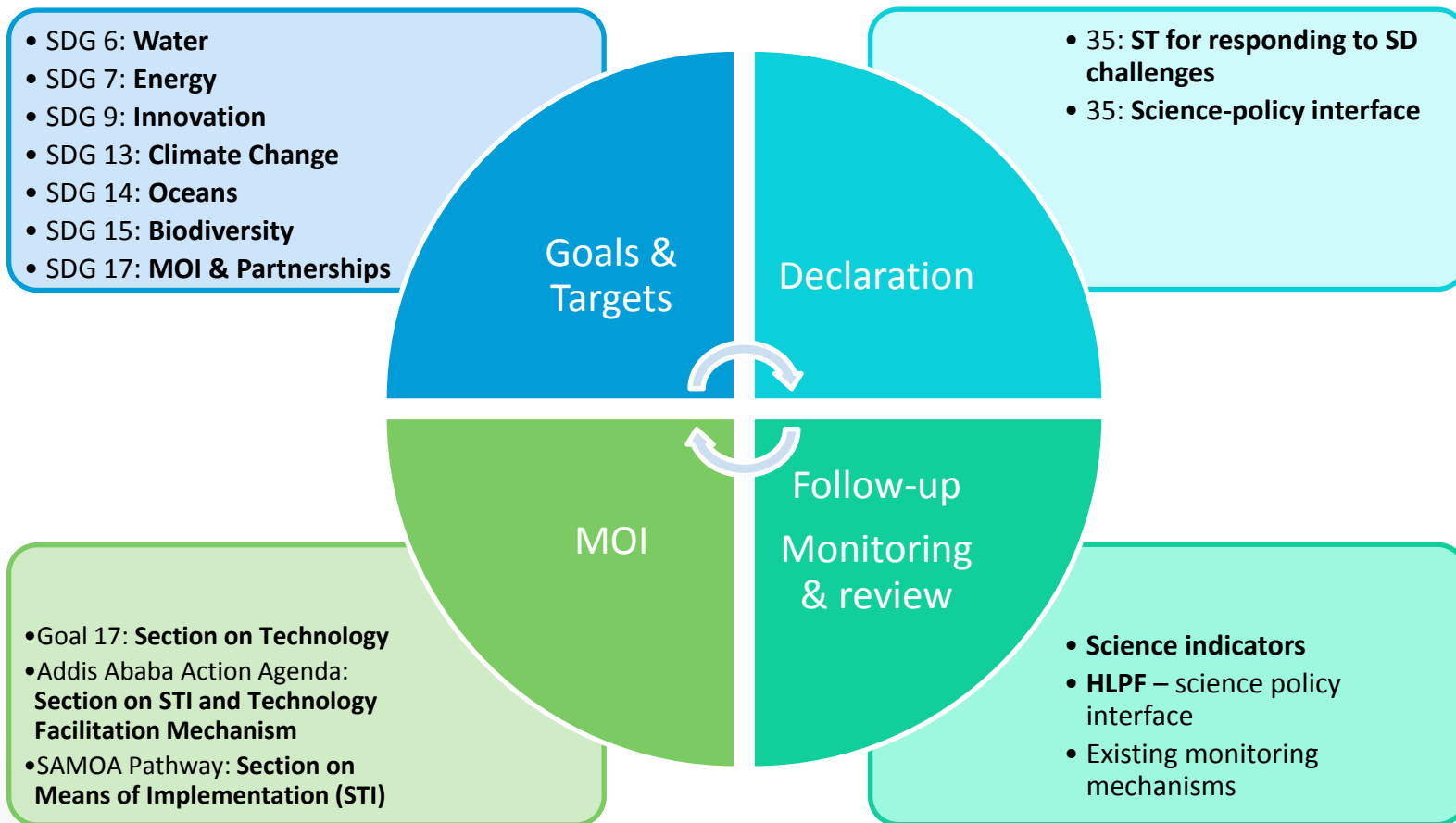


Science in the 2030 Agenda

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International Agendas

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Samoa Pathway: SIDS
Sendai Framework: DRR
Istanbul Programme of Action: LDCs
Addis Ababa Action Agenda: FfD



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What STI we need for the 2030 Agenda?

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- Focus on problems and finding solutions to those challenges
- Integrating natural and social sciences, culture and communication- Intersectorial and interdisciplinary
- With social impact and promoting social transformation
- Global, regional and local connections- cross-scale research programmes
- Community engagement- co-design, and co-production of knowledge (more citizen science)
- Partnerships and networks, joint think-tanks
- Mutual learning and re-learning for sustainable development



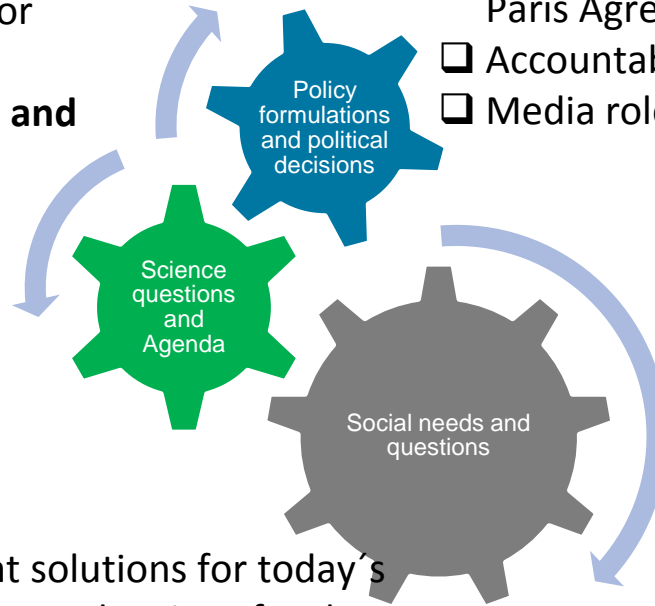
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The Interfaces Science, Policy and Society

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- Policy for Science and Science for policy
- Relevant Science Advice: excellence in science
- Language adjustment: communicating science for decision makers – **more space for Science Advice and Science Diplomacy**
- Multi and transdisciplinary science**
- Co-design and co-production of knowledge
- Science with conscience
- Relevant solutions for today's problems and actions for the future we want
- Media role: Communicating science in society
- New contract between science and society**
- Long-term vision in short political cycles
- Global commitments:** the new 2030 Agenda, Samoa Pathway, Sendai framework, Addis Ababa Framework, Paris Agreement
- Accountability – policy with conscience
- Media role in communicating policy
- Human capital
- More participation and access to public information
- Planetary Citizenship**
- Ethical values





Inclusive Science Technology and Innovation (STI) for sustainable development

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- Pillars for effective STI Ecosystems:
 1. Solid STI policies as holistic frameworks
 2. Institutional & human capacities mobilizing science, research & innovation for decision making and SD plans
 3. Public participation in science
- Development of innovation capabilities to generate green growth transformation
- Special focus on women and girls in science
- Triangular and South-South cooperation to support policies and activities of STI of developing countries
- Local and indigenous knowledge systems



Harness science, technology, innovation and knowledge

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



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.



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

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



GLOBAL PRIORITY

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

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



Improve access to clean energy through inclusive STI systems.

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

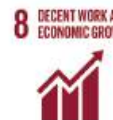


Build sustainable cities that are water secure, protect ecosystems and are resilient to climate change and natural disasters.



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

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



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.



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.



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



SAMOA Pathway: 17 priority areas

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- ❖ **Sustained and sustainable, inclusive and equitable economic growth with decent work for all**
 - *Development models for sustainable development and poverty eradication*
 - *Sustainable tourism*
- ❖ **Climate change**
- ❖ **Sustainable energy**
- ❖ **Disaster risk reduction**
- ❖ **Oceans and seas**
- ❖ **Food security and nutrition**
- ❖ **Water and sanitation**
- ❖ **Sustainable transportation**
- ❖ **Sustainable consumption and production**
- ❖ **Management of chemicals and waste, including hazardous waste**
- ❖ **Health and non-communicable diseases**
- ❖ **Gender equality and women's empowerment**
- ❖ **Social development**
 - *Culture and sport*
 - *Promoting peaceful societies and safe communities*
 - *Education*
- ❖ **Biodiversity**
 - *Desertification, land degradation and drought*
 - *Forests*
- ❖ **Invasive alien species**
- ❖ **Means of implementation, including partnerships**
 - *Partnerships*
 - *Financing*
 - *Trade*
 - *Capacity-building*
 - *Technology*
 - *Data and statistics*
 - *Institutional support for small island developing States*
- ❖ **Priorities of the small island developing States for the post-2015 development agenda**
- **Monitoring and accountability**

Conclusion: UNESCO's interdisciplinary mandate is highly relevant to priorities identified in the Samoa Pathway.

The UNESCO SIDS Action Plan and SDGs

UNESCO is also

contributing to SDG 1 (poverty eradication) through its efforts to increase human capacity and productivity through quality education and skills development; science, technology and innovation; enhancing access to ICTs and the media; sustainably managing our terrestrial and marine resources and through cultural industries, cultural and natural heritage and sustainable tourism



UNESCO is also actively supporting SDG 17 (MOI), by promoting access to STI, providing targeted capacity building in its areas of competence, strengthening multi-stakeholder partnerships and supporting data monitoring and accountability.



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UNESCO SIDS Action Plan

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5 priority areas covering UNESCO's multidisciplinary mandate

1. Enhancing island capacities to achieve sustainable development through education and the reinforcement of, human and institutional capacities
2. Enhancing SIDS resilience towards environmental, ocean, freshwater and natural resources sustainability
3. Preserving tangible and intangible cultural heritage and promoting culture for island sustainable development
4. Supporting SIDS in the management of social transformations and the promotion of social inclusion and social justice
5. Increasing connectivity, information management and knowledge sharing

Some highlights of the progress achieved

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IOC and DRR activities:

- 14 Caribbean SIDS engaged in harmonising and standardizing Tsunami Early Warning Systems. The same 14 Caribbean have benefitted from regional/country trainings to develop or review their Tsunami Standard Operating Procedures (SOPs).
- The installation of new sea level monitoring stations in Aruba, Jamaica and St Lucia contributed to enhance sea level monitoring capabilities in the Caribbean, for tsunami and other coastal hazards.
- IOCARIBE: Under CLME+ 26 MS signed the SAP and are using the ecosystem based management approach for managing the transboundary living marine resources. Also, all IOCARIBE (31 MS) are developing, implementing and operationalising the tsunami and other coastal hazards warning
- 13 countries in the Caribbean have been enhanced capacity for DRR
- The UNESCO-VISUS multi-hazard school safety assessment methodology is currently under implementation in 100 schools in the North of Haiti.



- STI Policy: the case of SIDS is specific in this domain, as they are small and do not have a critical mass of scientists and researchers. Go-SPIN, a UNESCO tool created to help countries to develop their STI policy with specific indicators, is developing a similar model that can be applied only to SIDS and very small countries.
- Sharing of best practices: some SIDS and non-SIDS countries can be used as examples of successful STI policies, such as Singapore, Malaysia, etc.. Even though they have a different context and culture, could be used as a basis for thinking and designing SIDS STI policy.
- Organization of regional workshops on STI policy and advice, such as the one held in 2017 in Trinidad and Tobago for the Caribbean region
- Strengthening existing networks, with the aim to assess the situation of STI in the region and propose recommendations for STI policy development including the establishment of an STI Observatory and carry-out a sub-regional GO SPIN analysis,
- Creating bridges between community/citizen science monitoring and policy making in SIDS



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SANDWATCH: Adapting to Climate Change and Educating for Sustainable Development

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SANDWATCH: Adapting to Climate Change and Educating for Sustainable Development

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- A citizen-science coastal monitoring programme
- Encourages the development of sustainable approaches to address beach environment challenges
- Stimulates local climate change adaptation measures
- Launched by UNESCO 15 years ago
- Developed into a dynamic global network of teachers, students and partners from NGOs, governments and communities
- Initiated in 50 coastal countries, it is actually being active in 35 countries in primary, secondary and higher education institutions (in more than 1000 schools) and communities, including in the Caribbean
- Promotes south-south cooperation via regional hubs of expertise



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The Sandwatch MAST approach

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Monitoring the environment



Analyzing the results



Sharing the findings



Taking action





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Measuring current direction and speed

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La Sagesse Beach, Grenada



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Strengthening freshwater security – Responses to local, regional and global challenges

Responding to water related disasters and hydrological change

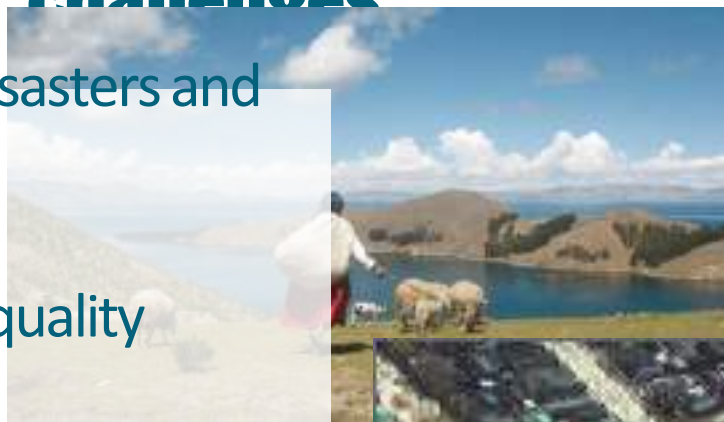
Addressing water scarcity and quality

Managing groundwater resources in LAC

Water and human settlements in LAC

Engineering harmony for a sustainable world: LAC regional programme on ecohydrology

Water education: key for achieving water security in LAC



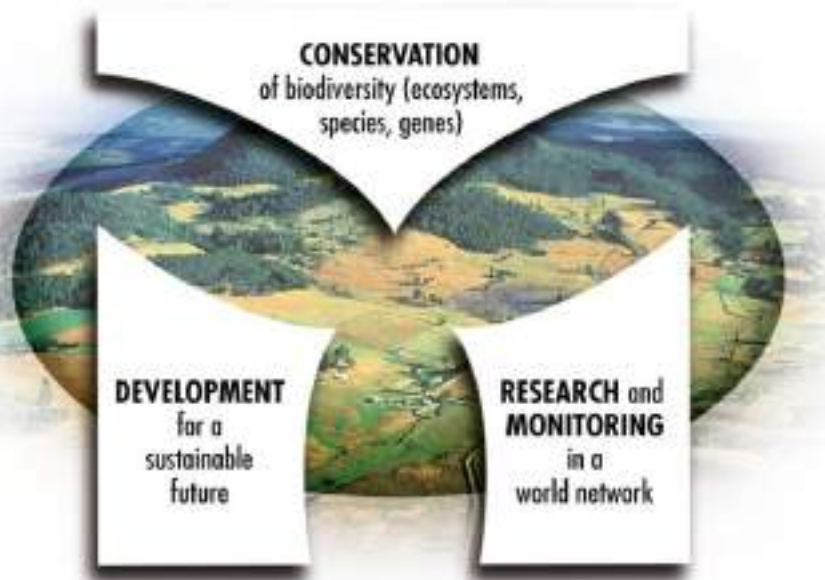


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Biosphere Reserves as Tools for Sustainable Development

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- Sustainable management of natural resources
- Local green and blue economic development
- Climate change resilience
- Conflict resolution and reconciliation



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Biosphere Reserves as Model Regions for Sustainable Development

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- Conserve biological and cultural diversity at a global scale.
- Provide **local solutions to global sustainable development challenges, including climate change.**
- Facilitate the application of sustainability science and serve as **knowledge and skill incubators.**
- **Foster resilience of vulnerable groups** to build equitable and healthy societies.
- Explore and test **green economy and green society paradigms.**
- Promote conflict resolution and reconciliation through **shared governance**



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Education programmes

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- Education policies have been reviewed to integrate a lifelong learning perspective – 1 full policy reviews in Saint Kitts and Nevis + 1 policy review launched in the Bahamas.
- Systems have transformed towards supporting youth transitions and building skills for work and life – including in St. Lucia.
- Support to Cuba and the Dominican Republic to assess and review their teacher standards on the basis of UNESCO's Regional Strategy on Teachers
- Some Caribbean SIDS (Cuba, Dominican Republic, Haiti) have received technical support in policy, planning, curriculum, teacher training & learning materials development, with a focus on climate change, disaster risk reduction and biodiversity including



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Culture

Cultural industries
Cultural and Science
Museums and centers

THE 5 P'S OF SUSTAINABLE DEVELOPMENT



Source:
UN Sustainable
Development Goals
(SDGS), 2015



Human creativity
Culture Heritage
Cultural
education
Gender



Culture and Crime
Fight against illicit
traffic of cultural
goods
University
network for
intangible culture

Natural heritage
Food security and
Indigenous knowledge



Freedom of
expression and
artistic freedom

CC Wayne Visser 2015



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Social Science Programme



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Management of
Social Transformations
Programme

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- UNESCO's intergovernmental science programme **on social transformations MOST Programme.**
- Supports States in **improving policymaking** processes through a **strengthened research-policy** interface.
- Pillars of work:
 - **Research** – Promote and produce inclusive and interdisciplinary knowledge (Ex: **Policy papers** on Disasters and Social Development, Institutional Architecture and SDGs).
 - **Intergovernmental Forums** – Support shaping regional social policies agenda (LAC Social Development **Ministerial Conference**)
 - **Policy support and capacity building** – Strengthens capacities and supports policy processes (MOST Schools, Future Literacy Lab, **MOOC**)
 - Next MOST Caribbean School in Habana : **“Bridging research and environmental adaptation to climate change in the Caribbean” May 2018**



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MOST/MOOC - Research and Policy against inequality in Latin America and the Caribbean

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- **Massive online open course** to promote informed policies towards equity in Latin America and the Caribbean in the frame of the SDGs.
- **Oriented to:** Decision-makers, researchers, students, activists, journalists.

Pilot edition 2017

- 10 countries in Latin America
- 3500 participants
- More than 30 keynote speakers
- Network of more than 20 Universities, Think Tanks



MOST MOOC 2018

- Covers all countries of Latin America and the **Caribbean**
- In Spanish and **English**
- **Beginning day – 7th May.**



THE GLOBAL GOALS
For Sustainable Development



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International Science Cooperation

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United Nations Educational, Scientific and Cultural Organization

International Geoscience Programme

United Nations Educational, Scientific and Cultural Organization

UNESCO Global Geoparks

United Nations Educational, Scientific and Cultural Organization

International Hydrological Programme

United Nations Educational, Scientific and Cultural Organization

Man and the Biosphere Programme

United Nations Educational, Scientific and Cultural Organization

World Water Assessment Programme

United Nations Educational, Scientific and Cultural Organization

LiNKs
Local and Indigenous Knowledge Systems

The Abdus Salam
International Centre
for Theoretical Physics

United Nations Educational, Scientific and Cultural Organization

Intergovernmental Oceanographic Commission

twas

IBSP
International Basic Sciences Programme

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Management of Social Transformations Programme



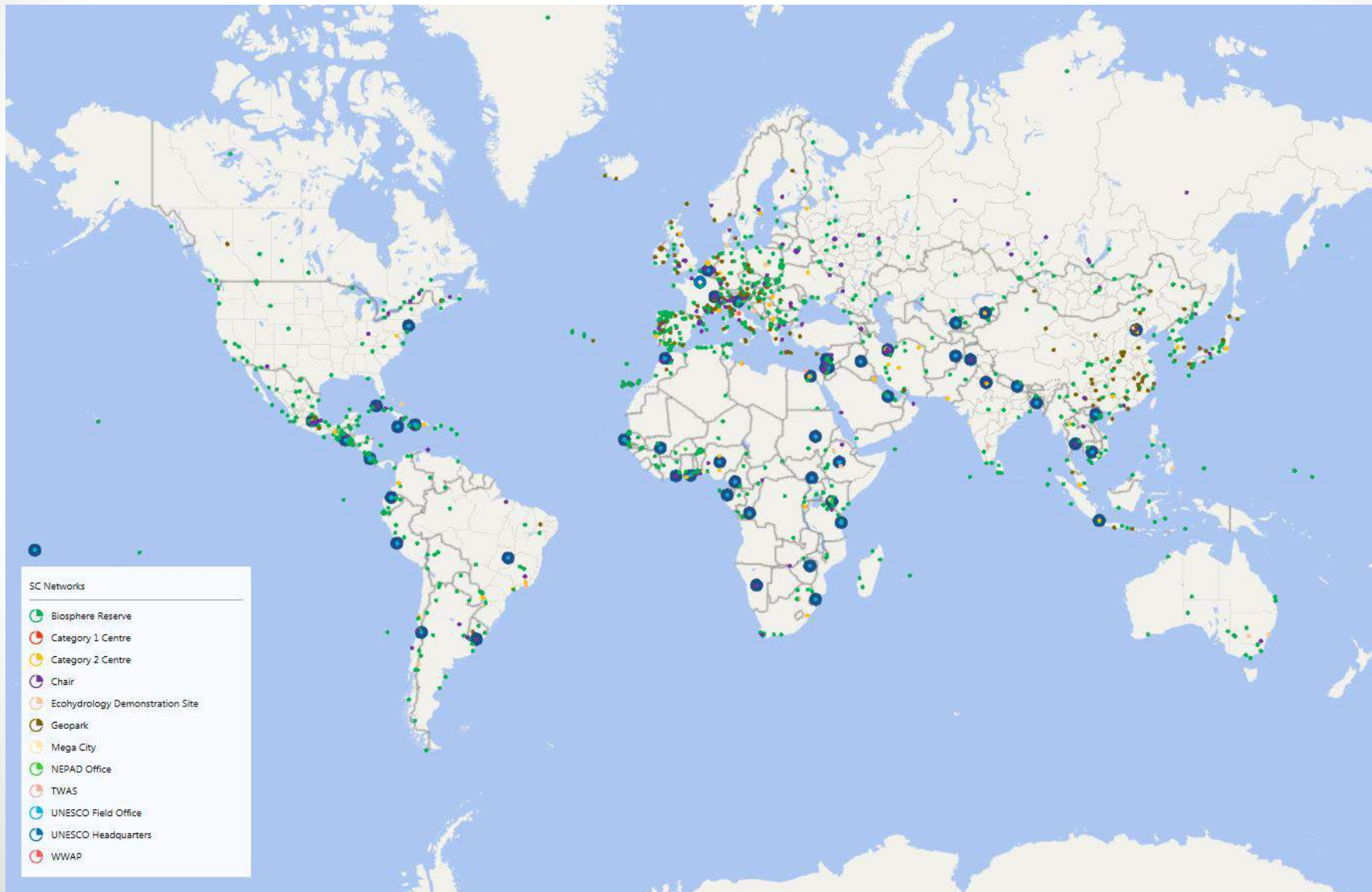


UNESCO Global Network

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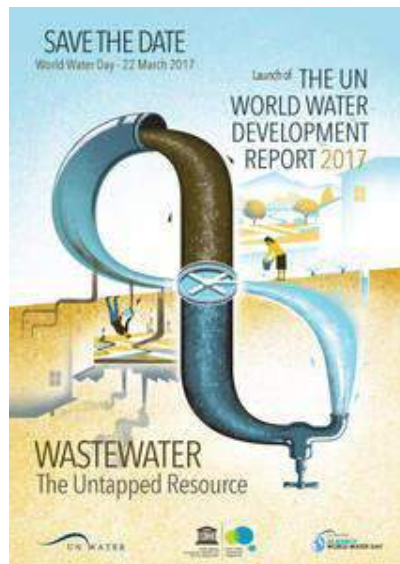
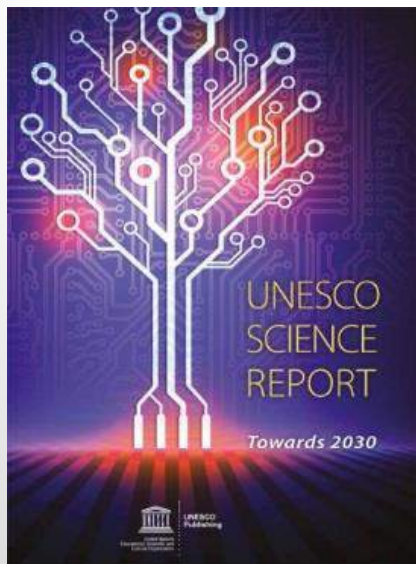
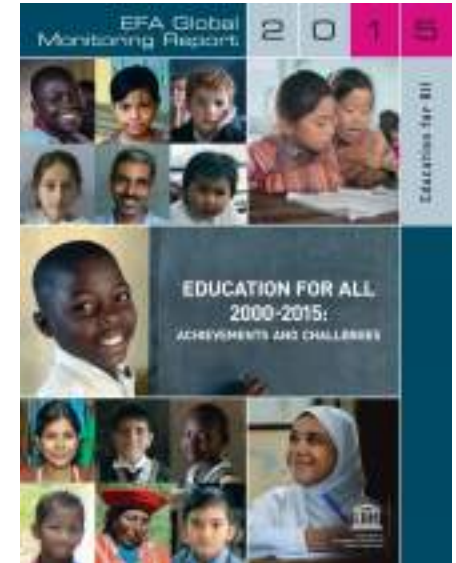
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Follow up & Monitoring

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Follow up Monitoring and review

- Science indicators
- HLPF – science policy interface
- Existing monitoring mechanisms





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A New Initiative for STI and the 2030 Agenda in the LAC region

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The Open Science Forum for LAC



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- An integrated and strategic **Knowledge platform** for Latin America and the Caribbean
- **Multi-actors** mobilized for a regional STI Agenda for sustainable development
- **Dialogues** between science, policy and citizens for 2030 Agenda and the building of sustainable and knowledge societies in the region.
- Strengthening of **citizenship and social inclusion** through scientific knowledge



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What STI we need for the 2030 Agenda?

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- Focus on problems and finding solutions to those challenges
- Integrating natural and social sciences, culture and communication- Intersectorial and interdisciplinary
- With social impact and promoting social transformation
- Global, regional and local connections- cross-scale research programmes
- Community engagement- co-design, and co-production of knowledge (more citizen science)
- Partnerships and networks, joint think-tanks
- Mutual learning and re-learning for sustainable development



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Enabling environment

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- Leadership: common vision and public good;
- Ownership: Participation, people-centered development, and autonomy;
- Conviction: prioritize actions with widest impact (Development priorities);
- Commitment: Increase of funding;
- Re-learning capacity: education-research-education;
- Ethics: true partners



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See you there!



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2nd Open Science Forum for Latin America and the Caribbean CILAC 2018



October 22 to 24, 2018

**PANANMA CITY
SCIENCE CONNECTS!**



**For more
information:
www.forocilac.org**





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Thank you!

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The 2010 Agenda... An Opportunity to be seized!

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Jamaica (20.02.2018)