

UNESCO's Action in Support of Climate Change Adaptation

1. The UNESCO House

UNESCO promotes and translates science and knowledge for the empowerment of all kinds of peoples and generations. UNESCO is a source of cutting-edge scientific knowledge, which it communicates to decision-makers at all levels, including local and indigenous communities, thus influencing policy and results at the local, national and global levels. UNESCO also promotes the inclusion of local and indigenous knowledge in global policy as a foundation for locally driven sustainable development. UNESCO collaborates with a vast community of researchers, practitioners, local and national institutions, non-governmental organizations (NGOs), and local communities for implementation of its programs. Its formal network comprises 195 Member States (MS) with delegations and national commissions, in addition to national, cluster, liaison and regional field offices, specialized centers and institutes, and university chairs.

While identifying emerging issues, promoting innovation and creating synergies with existing science and other networks and programs, and by using a multidisciplinary approach in its activities and projects, UNESCO enhances its role and effectiveness in its domains, and strengthens assessment and monitoring of global environmental trends and their impact on human populations. UNESCO's actions and knowledge are multiple, multilevel and multidisciplinary, and cover areas such as: the application of scientific knowledge, capacity development, technology transfer, national policy advice, ethics, gender equality, youth engagement, traditional knowledge and safeguarding of cultural and natural heritage leaving no one behind. UNESCO retains - at global, national and local levels - the best available knowledge, practices and lessons learned, while bringing together research and management communities. These are key assets to address the challenges that society currently faces: globalization, development, social and economic asymmetries, and climate change, the latter being one of the most compelling challenges in the pathway to sustainability and to achieving the *Sustainable Development Goals* (SDGs) and in the implementation of the COP21 Paris Agreement.

2. The Added Value of UNESCO as a Multilateral Implementing Entity to the Adaptation Fund Board

UNESCO's activities on the ground are country-driven, which leads to greater ownership by its implementers. Developing such ownership has been key to increasing the cost-effectiveness of the Organization's actions and results.

UNESCO works in partnership with countries, catalyzing and tailoring assistance to developing nations, at national or regional levels. At the national level, UNESCO's Permanent Delegations facilitate direct high-level government contact, and serve as valuable links to UNESCO's National Commissions, which are strong drivers and implementers of local action. These linkages ensure alignment with national needs and policies and regional decisions taken at regional summits.

UNESCO's close relationships with its MS, coupled with its global networks of knowledge and practitioners in the natural and social sciences, allows UNESCO to assist countries in adapting to climate change, with the understanding that action needs to be driven and developed according to the local context (i.e., tailored according to concrete priorities, needs, capacities and culture). Part of UNESCO's understanding of this local context comes through its large and overlapping networks of program sites, other local projects and community networks. In addition to the close relationships with its MS and the multiple networks built by UNESCO or in which UNESCO participates, our organization has an ample expertise on

scientific, indigenous and local knowledge management that will facilitate knowledge sharing among participants and beneficiaries of the Adaptation Fund.

Serving the Adaptation Fund Board as a Multilateral Implementing Entity will enable UNESCO to better serve vulnerable countries by directly working with them to address their requests and needs, while collaborating and mobilizing the necessary resources and partners for effective local implementation on the ground. This will promote cost-effectiveness and fulfillment of the envisioned mission of the Adaptation Fund by providing concrete results.

UNESCO's programs effectively leverage additional resources for the protection and management of the environment. Thus UNESCO can expand the capacity and effectiveness of the Adaptation Fund in fostering concrete implementation of adaptation initiatives through its capacity to mobilize technical resources and cofinancing for its projects. According to needs and context, UNESCO has also demonstrated its capacity to generate benefits by replicating and scaling up projects and activities to national or regional levels and by developing sound statistical indicators.

The following section summarizes UNESCO's strategy to address climate change, including the most prominent programs and examples of recent activities for climate change adaptation.¹

These activities, together with UNESCO's capabilities to work *in situ*, position UNESCO to effectively assist vulnerable countries in building resilience of their communities, the environmental resources they rely upon, their biodiversity and the provision of ecosystem services which are essential for sustainable development..

2.1 The UNESCO Strategy for Action to Address Climate Change

The UNESCO ***Strategy for Action to Address Climate Change*** emerged in 2008 as a natural corollary of the accumulated experience of UNESCO's sectors and programs in addressing climate challenges over many years. The UNESCO Strategy takes stock of the organization's multiple competencies and longstanding experience in developing synergies in a coordinated manner. Through its Strategy, UNESCO seeks to reinforce the scientific, mitigation and adaptation capacities of countries and communities that are most vulnerable to the effects of climate change. Its outputs and results are concentrated around the development of four programs that, together, bring a holistic understanding of climate change, its underlying causes, driving forces and impacts, as well as options for mitigation and adaptation. The Strategy allows UNESCO to enhance the effectiveness of its Actions, both at the country and local levels, by better aligning projects with national priorities. This alignment is done in collaboration with UNESCO's field offices, regional mechanisms and initiatives. UNESCO's Strategy fosters stocktaking and the development of synergies with other UN agencies and partners, particularly in areas for which UNESCO was given a major role, such as the knowledge base, education, strengthened safeguarding of cultural and natural heritage and social dimensions of the impact of climate change. The Strategy was developed in tandem with the *UN Delivering as One on Climate Change Initiative*. To further implement its Strategy, prior to the UNFCCC COP 15, UNESCO launched its *Climate Change Initiative*, which includes the following flagship activities:

¹ In order to fully reflect the 2030 Agenda for Sustainable Development and the Paris Agreement, the strategy is presently being updated as part of the process to prepare the UNESCO Draft Programme and Budget for 2018-2021 (39 C/5). It is anticipated that ongoing adaptation actions outlined in this document will be further emphasized and strengthened in the updated strategy.

1. UNESCO Climate Change Adaptation Forum, which informs the public (national policy makers, vulnerable communities, women, the local media, social, cultural and scientific networks) and stakeholders (in agriculture, fisheries, forestry, alternative energy, water management, coastal services, etc.) of climate projections and medium-term forecasts and their potential impacts, in order to strengthen capacity for appropriate strategies to build resilience, and to improve the relevance of these projections.

2. Climate Change Education for Sustainable Development Programme, which uses innovative educational approaches to reach a broad audience.

3. Climate Change Field Observatory of UNESCO sites, which uses the Biosphere Reserves, the Global Geoparks, and World Heritage Sites as priority reference sites to understand and test adaptation approaches to climate change impacts using an inter-disciplinary approach. UNESCO has already begun developing a Pan-African initiative called 'UNESCO Green Academies in Africa – globally applicable', with a focus on practical and replicable climate-action, via training and Youth-Mobilization of girls and boys, as well as women and men, inside UNESCO sites, which is currently being developed and tested.'

4. Social, Human, Ethical and Gender Dimensions of Climate Change, a policy relevant and action-oriented program focusing on the design and implementation of appropriate climate change adaptation actions benefiting the most vulnerable. It also seeks to improve the understanding of gender equality issues related to climate change.

5. The UNESCO International Oceanography Commission works with its Member States to monitor and document the impacts of climate change on the world's ocean, coasts and marine ecosystems. The Global Ocean Observing System, [GOOS](#), contributes directly to the actions under the UN Framework Convention on Climate Change as the ocean component of the Global Climate Observation System, [GCOS](#). IOC science programmes support many studies of the impacts of climate change, with a focus on [ocean acidification](#). IOC works with its Member States to monitor and document the impacts of climate change on the world's ocean, coasts and marine ecosystems. The Global Ocean Observing System, [GOOS](#), contributes directly to the actions under the UN Framework Convention on Climate Change as the ocean component of the Global Climate Observation System, [GCOS](#). IOC science programmes support many studies of the impacts of climate change, with a focus on [ocean acidification](#).

The implementation of the UNESCO's *Strategy* and *Initiative* is facilitated through the UNESCO ***Intersectoral Task Force on Climate Change***, which brings together experts throughout all sectors and offices of the Organization. Recognizing that climate change is one of the most compelling pressures on poverty eradication and sustainable development, climate change is addressed at UNESCO as a crosscutting issue and mainstreamed into efforts to address UN priorities. In particular, these priorities include the most vulnerable nations and groups: *Africa*, *Small Island Developing States (SIDS)*, *Least Developed Countries (LDCs)*, *gender equality* and *youth*. Of note, UNESCO was the lead Agency for the *UN Decade of Education for Sustainable Development*.

2.2 Experience Addressing Adaptation to Climate Change

Over the past decade, climate change has permeated UNESCO's actions, sections and intergovernmental/ international environmental programs, as countries, communities and sites where UNESCO operates have been increasingly affected by climate change. These impacts require enhanced scientific knowledge, and more adaptive and robust policies, institutions and measures to face the uncertainties of climate change.

The Natural Sciences (SC) and Culture (CLT) sectors of UNESCO contribute to the understanding, conservation and management of the different natural environment systems that are under threat of climate change, and raise awareness of the impacts of climate change on biological and cultural diversity (both tangible and intangible heritage). CLT, through its normative instruments, also promotes community-based resilience to climate change. The Social and Human Sciences (SHS) and Communication (CI) sectors are also developing specific contributions by assisting countries in framing inclusive national policies and economic valuation. The Education sector mainstreams climate change challenges, including adaptation, through formal and informal activities. Specific building blocks of UNESCO's action in adaptation to climate change include the following:

The UNESCO ***Intergovernmental Oceanographic Commission*** (IOC) has, for many years, been playing a catalytic role in the area of climate change, through facilitating research and monitoring to understand how climate impacts on oceans and coasts will vary and change, and how they will affect resources and societies. IOC also helps to design strategies for adaptation and mitigation. In cooperation with the World Meteorological Organization (WMO), IOC plays a key role in the effort to develop more accurate seasonal and longer time-scale regional forecasts, which are of increasing importance to support planning of human activities affected by climate (e.g. agriculture, hydropower) and to provide early warning. Since 2005, IOC has developed and implemented a *Self-driven Strategy for Capacity Development*, approved by IOC's Assembly. This Strategy supports enhanced ocean governance and management through country-driven activities, and is tailored for institutional strengthening of national research institutions linked to decision-making processes. IOC's guidelines for spatial planning help mainstream coastal planning into national policies. IOC has also pioneered adaptation to climate change in coastal areas, which is a major concern and priority according to the IPCC (2009) given the deficit of long-term adaptation measures to ensure the sustainability of coastal communities' livelihoods and coastal environments. Adaptation along coasts, particularly in Africa, SIDS and LDCs, is a priority objective for IOC and related UNESCO programs. IOC leads and coordinates the only African regional project focused on long-term *Adaptation to Coastal Climate Change* (ACCC, funded by the GEF), which is implemented in collaboration with UNDP in a network of pilot sites in the West African region. Countries are increasingly requesting IOC's assistance for coastal adaptation and seasonal climate forecasts, and African countries are asking for help in accessing the Adaption Fund in order to build resilience in coastal communities and their environments.

The ***International Hydrological Programme*** (IHP) is devoted to water resources management, research, education and capacity development. IHP evolved into a transdisciplinary, action-oriented and policy-relevant program with a strong scientific core, tailored to the needs of countries and stakeholders, which incorporates social, economic and cultural dimensions of freshwater. IHP's seventh program phase, *Water Dependencies: Systems under Stress and Societal Responses*, aims to strengthen scientific understanding of the impacts of climate change drivers on freshwater systems in order to achieve sustainable management of water resources. IHP's special research focus is the scientific understanding of the impacts of climate change. These include the prediction and detection of variability and vulnerabilities of surface and groundwater flows, floods and droughts, to address adaptation on freshwater resources. *Adaptation to the impacts of global changes on river basins and aquifer systems* is a central theme of IHP's mission to assist communities. All these activities converge into integrated water resources management, including for adaptation to global change risks, policy related interventions, community management and achievement of the SDGs. Together, the IOC and IHP have strong competencies in translating science into management and capacity development including for emergency situations, which is key to saving lives and livelihoods and maintaining security. *Warning Systems* and *Disaster Reduction Centres* have been put in place for readiness and preparedness of local communities that face coastal zone natural hazards (tsunamis, floods, storm surges) and water hazards (droughts, floods). Under IOC's *Coastal Adaptation*

Initiative, IOC produced the guidelines *Hazard Awareness and Risk Mitigation* in Integrated Coastal Area Management (IOC/UNESCO/ICAM/WMO). While developing weather and mid-range climate forecasts, the *Flood Management Platform* (IHP), the *Global Ocean Observing System* (GOOS, IOC) and the *Regional Climate Outlook Fora* (IOC/WMO), inform, educate, prepare and raise awareness of communities to cope and to adapt activities in immediate and seasonal or shorter-term perspectives.

The ***Man and the Biosphere*** (MAB) Programme aims to set a scientific basis for the improvement of the relationships between people and their environment, through an interdisciplinary research agenda and capacity development that targets the ecological, social and economic dimensions of biodiversity. The combined focus on improving human livelihoods and safeguarding natural ecosystems promotes innovative approaches to sustainable development. For implementation on the ground, MAB relies on the *World Network of Biosphere Reserves* (669 biosphere reserves in 120 countries, including 16 transboundary sites), thematic and geographic networks and partnerships for knowledge sharing, research and monitoring, education and training, and participatory decision-making. The mix of land uses (agriculture, forestry, mining, tourism, conservation etc.) and the range of actors (public administration, stakeholders, civil society) active within biosphere reserves make them ideal places to foster pathways in adapting to climate change and to compare a range of institutional arrangements that can enable land/seascape level sustainability at an appropriate administrative level. Under UNESCO's priorities *biosphere reserves are living laboratories for sustainable development*.

With the IHP, MAB works on the climate- and human-induced changes related to the world's water resources and the sustainability of the biospheres upon which humans depend.

The ***World Heritage*** (WH) Centre's work is also site-based, and undergoes rigorous intergovernmental monitoring through the *WH Committee* and its technical support partners including the International Union for Conservation of Nature (IUCN). UNESCO's Open Initiative with national space agencies provides space-based monitoring for management needs. The WH Convention facilitates access to a global network of senior level government focal points responsible for biodiversity and cultural heritage conservation. These focal points are alarmed about climate change impacts and keen on implementing adaptation strategies requested by the *WH Committee* to support the *WH Centre* and its Advisory Bodies. Over the past ten years, the WH Centre has implemented over US\$ 50M in projects focusing on site-based biodiversity and cultural heritage conservation. It has a wealth of experience in project development and implementation, including an extensive network of site-based contacts. Given the major threats posed by climate change to WH sites overall and reflecting the concerns of its intergovernmental WH Committee, the WH Centre identified the key concerns and a "Policy Document on the impacts of climate change" was adopted by the Committee in 2007, including case studies and policy recommendations. The WH Committee is a key platform for successful adaptation strategies to be communicated and replicated, as lessons learned may be quickly appropriated at the highest governmental levels. The WH Centre is currently implementing several climate adaptation projects and has published in 2014 a Practical Guide on "Climate Change Adaptation for Natural World Heritage Sites". It also recently ran a study on "World Heritage and Tourism in a Changing Climate".

The WH Centre is presently working with MAB to help WH site managers to be better prepared for climate change by identifying risks and suitable adaptation responses in several sites.

The Natural Sciences Sector's ***Small Islands and Indigenous Knowledge*** unit promotes the importance of local community-level observations, strategies and action related to climate change adaptation, with particular emphasis on SIDS, indigenous and other vulnerable communities. Currently, these objectives are forwarded through the *Climate Frontlines*

project (with the CBD, UNPFII, OHCHR), whose objective is to mainstream traditional knowledge in scientific assessments (IPCC) and adaptation policy (with the IPCC, UNU, CBD and UNDP), as well as to contribute expertise based on indigenous and local knowledge on adaptation through an internet-based network of people. Nowadays, *Climate Frontlines*' forum reaches 60,000 people and has a growing network of community-based research projects. This network builds synergies with the project *Sandwatch*, which is a global network of practitioners based in schools, communities and local organizations that monitor and analyze the social and environmental evolution of their coastal areas. The *Sandwatch* project communicates its findings to the network and the general public.

The **Social and Human Sciences** (SHS) Sector's unit on **Ethics of Science and Technology** (EST) develops and mainstreams policy-relevant, action-oriented programs focused on the design and implementation of climate change adaptation actions related to energy, water and natural resources management benefiting the most vulnerable. SHS/EST works closely with countries to develop criteria for identifying and weighing different categories of vulnerability, assisting policy-makers in establishing action priorities, offering guidance on the integration of cost-benefit analysis of policy choices, and conducting analysis of best practices in consultation with communities. In collaboration with the World Commission on Ethics of Scientific Knowledge and Technology (COMEST), the unit develops local programs that foster international environmental justice and technology transfer to LDCs.

SHS/EST participates in the **Social Dimensions of Climate Change** project within the *UN Delivering as One on Climate Change Initiative*. UNESCO was the lead agency of the United Nations *Decade of Education for Sustainable Development* (2005-2014) and is now coordinating the Global Action Programme on ESD. The support of the implementation of the educational component of the UNFCCC is championed through the *Climate Change Education for Sustainable Development* program (CCESD), to raise awareness of young people on the causes and impacts of and ways to adapt to climate change. CCESD supports countries through capacity development, and formal and informal education for adaptation to climate change. It enables youth to be multipliers in conveying awareness for adapting livelihoods into their families and their communities at large. The CCESD partnership (UNICEF, UNFCCC, UNEP and UNDP) is supported and disseminated through UNESCO educational networks such as the *Associated Schools Project Network*.

UNESCO belongs to several **Partnerships for Adaptation to Climate Change**, and collaborates with numerous UN agencies and partners, thus expanding the breadth of support to climate change adaptation efforts, such as: the *Resilience-Initiative* (IOC/UNESCO-WMO-UNFCCC), the *Adaptation-Initiative* (UNESCO-WMO), and the *African-Adaptation-Initiative* (UNESCO-WMO-UNDP); the *Global Programme of Research on Climate Change Vulnerability, Impacts and Adaptation* (PROVIA); and the *Global Framework for Climate Services* (GFCS).

2.3 Field Presence

UNESCO's effective presence in countries supports and strengthens the principles of ownership and country-driven activities, and ensures better alignment between concrete projects and national priorities. UNESCO has proven capacity in ensuring delivery and management of projects through its capillary field presence and worldwide communities in science, culture and education, interlinked via a series of networks, coordinating with its headquarters in Paris, France. To illustrate:

- UNESCO is present in 200 countries (195 MS and 10 Associated MS)
- UNESCO has 54 Field Offices, including
 - 10 Regional Bureaux
 - 27 Cluster Offices

- 4 Liaison Offices specifically to coordinate with the UN, African Union and European Union
- 21 National Offices serving a single country
- IOC has 148 MS
- IHP has 168 National Committees
- MAB has 669 sites in 120 countries
- WHC has 1052 sites in 165? Countries
- 120 UNESCO Global Geoparks in 33 countries.
- *ASPnet* has more than 9,000 educational institutions in 180 countries
- UNESCO has 10 category 1 institutes and centers
- UNESCO has 81 category 2 institutes and centers
- UNITWIN/UNESCO has 695 Chairs Programme and 68 UNITWIN networks

3. Capacity to Responsibly and Effectively Develop, Manage and Implement Projects and Programs on the Ground

Following the Adaptation Fund's *Policies and Guidelines* for the accreditation of Multilateral Implementing Entities, UNESCO has summarized its compliance with these criteria, including: fiduciary standards, transparency and liability, project management and implementation expertise (see Accreditation Re-Application Form).