EMPOWERING GOVERNMENTS TO ACT

In addition to UN-wide coordination in the above sectors, most of which are climate sensitive and sources of significant emissions, the UN system collaborates on providing an enabling environment for taking climate action. Resources, science, technology, education and training, capacity development, partnerships, and data and information are all essential to empowering countries to take action on all climate-related sectors. They also make countries more effective in their pursuit of sustainable development.

Mobilizing resources

Low-carbon growth offers tremendous opportunities for investment and leads to stronger, more resilient communities, increased job growth, and healthier citizens. Governments, investors and businesses are beginning to work together to mobilize global investments. Governments are sending the right signals through targeted policies and increasingly recognize that public finance alone is not enough: they also need to mobilize public finance to unlock private investment. Asset owners are measuring and reducing their climate risk and scaling up investments by enabling longer term debt such as green bonds and lowering the cost of capital for low-carbon projects. More needs to be done to scale up these early successes.

The International Monetary Fund and the World Bank Group collaborate with the Organization for Economic Cooperation and Development on studying options for climate finance. Their work on domestic and international fiscal instruments concludes that putting a price on carbon is a highly effective way to reduce emissions and raise climate financing. The World Bank Group is creating a coalition of first movers to instigate such a price. There is a growing momentum toward pricing carbon – over 40 countries and 20 sub-national governments are moving to put a price on carbon, and over 100 global companies already use an internal "shadow" carbon price to guide investments. The International Monetary Fund provides technical assistance to countries interested in pricing GHG emissions and reforming their environmental and energy taxes.

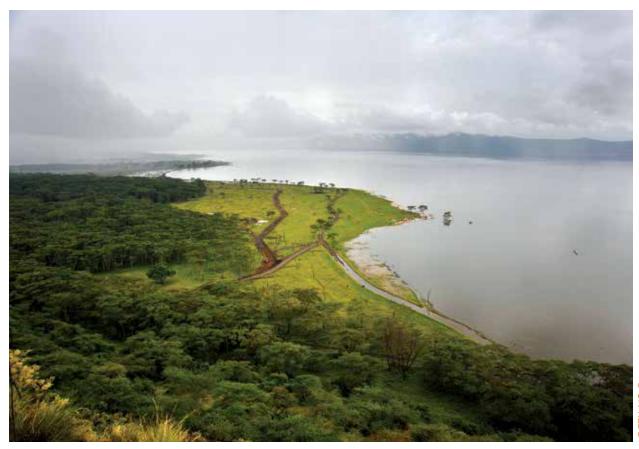
Another way to leverage domestic funds is to integrate climate action into national development strategies. For example, the Low Carbon Green Growth Roadmap developed by the Economic and Social Commission for Asia and the Pacific provides guidance to countries on how to translate action on climate change into economic growth opportunities. Some countries in the region are now moving in this direction. Indonesia seeks to mainstream climate change into its pro-growth, pro-job, and pro-poor 2005–2025 development plan, while Pacific island nations are improving energy efficiency and investing in renewable energy to reduce dependence on imported fossil fuels. Similar programmes are underway in other regions of the world.

An extensive portfolio of programmes operated by UNDP assist countries to access and leverage climate finance and better align climate policy with national development policies. These include the Climate Finance Readiness Framework, the Low Emission Capacity-building Programme, support for national adaptation planning, and a series of climate public expenditure reviews, which assist countries to identify how climate finance can best be aligned with national budgets.

In countries that have carried out these reviews, it has been found that anywhere from 3–15 per cent of national budgets support climate-relevant interventions.

The United Nations Global Compact, the United Nations Conference on Trade and Development, the UNEP Finance Initiative and Principles for Responsible Investment are collaborating to mobilize the required volumes of "private sustainability finance" and to direct private investment into a sustainable global economy. This initiative also mobilizes both public and philanthropic action. Private climate finance requires public incentives in various forms, ranging from comprehensive legislative and fiscal frameworks that make markets function at the international level – such as a stable and predictable price of carbon – to catalytic investments that improve the risk–return equation.

In response to the increase in climate risks, WFP is setting up a multilateral, multi-year, replenishable fund called FoodSECuRE. The fund provides financial and programme support to community-centred action for building climate resilience. FoodSECuRE will offer financing for early action based on three- to six-month climate forecasts of harvest failures and other climate shocks, as well as predictable multi-year financing to support post-disaster work on building resilience. Other innovative financing mechanisms include the Rural Resilience Initiative and Africa Risk Capacity projects. The latter is now a specialized agency of the African Union, which makes it possible to use pre-approved contingency funds in the event of severe natural disasters.



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A series of financial institutions and facilities have also been established by UNFCCC, including the new Green Climate Fund that is to serve as a major channel of climate finance for mitigation and adaptation in developing countries. The World Bank Group is scaling up its efforts to support climate-smart investments. A notable success has been the US\$ 8 billion Climate Investment Funds, which are designed to provide scaled-up financing, through the multilateral development banks, to initiate transformational change and promote climate-resilient, low-carbon development. The Climate Investment Funds are leveraging approximately US\$ 55 billion for climate-resilient, low-carbon development in 63 countries. More than 80 additional countries have expressed interest in the Funds.

Science for decision-making

Since the 1970s, the UN system has facilitated the assessment and dissemination of the most up-to-date science and knowledge about climate change, its impacts and the range of options available to address it. Science provides Governments with firm evidence about the changing atmosphere, oceans, water cycle and cryosphere. It offers policy-relevant information about possible future climate scenarios, the resulting impacts on natural and human systems, and policy options for adaptation and mitigation.

The Intergovernmental Panel on Climate Change (IPCC) published its first report on the warming of the global climate system in 1990. Established by WMO and UNEP, IPCC brings scientists, experts and Governments together to produce comprehensive climate change assessments every six or seven years. These assessments inform the UNFCCC negotiations and assist Governments to develop national climate policies. More targeted reports on specific subjects are also issued by IPCC, WMO, UNEP, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the UNESCO Intergovernmental Oceanographic Commission, other UN bodies and the World Bank Group, concerning, for example, climate trends, extreme events, GHG emissions and concentrations, health impacts, food security, oceans, sea levels and sea ice.

In addition to these reports and assessments, the UN facilitates international cooperation on scientific observation and research. The World Climate Research Programme and the Global Climate Observing System are each co-sponsored by several UN agencies. Through UN-led initiatives such as the Global Framework for Climate Services, science is incorporated into planning, policy and practice, thereby connecting Governments, scientists and other stakeholders. The impacts of higher atmospheric ${\rm CO_2}$ concentrations on ocean acidification are assessed by IAEA, UNESCO and others, while agencies such as FAO assess the impacts on groundwater resources. There are many other examples.

The UN system further strengthens the climate-change knowledge base by building the capacities of researchers, with a particular focus on developing-country researchers and women. For example, WMO and its partners have facilitated the development of Regional Climate Outlook Forums where scientists from neighbouring countries meet and produce consensus seasonal climate forecasts. The UN also encourages the maintenance and diffusion of indigenous and local knowledge as a vital complement to modern science; indigenous peoples' holistic views of community and environment can serve as a major resource for adapting to climate change.

Low-carbon technologies

The rapid deployment of existing technologies and the speedy development of new ones are central to building efficient and low-carbon energy systems for resilient societies and sustainable economies. Policymakers have grappled with how best to facilitate technology transfer and





Solar panel used for lighting village houses, Sri Lanka. © Dominic Sansoni/The World Bank

encourage the necessary private and public contributions. Technology transfer must engage many different stakeholders: the private sector owns most of the relevant technologies as well as the operational know-how, while civil society and Governments know best their priority needs.

The UN system combines expertise and convening power to bring these stakeholders together and create effective partnerships. Its efforts to promote the development and transfer of mitigation and adaptation technologies are guided by the UNFCCC's Technology Mechanism, which consists of the Technology Executive Committee and the Climate Technology Centre and Network (CTCN). The Committee provides a forum for policymakers to recommend policy actions for supporting technology transfer. The CTCN is guided by a multi-stakeholder consortium led by UNEP and the United Nations Industrial Development Organization; it builds on the national technology needs assessments and the technology action plans led by UNEP and the Global Environment Facility.

The UN is also establishing a technology bank and a supporting mechanism for science, technology and innovation designed to assist LDCs. As requested by the United Nations General Assembly, the Secretary-General will constitute a high-level panel of experts to carry out a feasibility study to examine the scope, functions, and institutional linkages with the UN and other organizational aspects of the technology bank. The bank is expected to be operational by 2017.

The World Intellectual Property Organization (WIPO) works with other UN agencies to promote and facilitate the transfer of technology. It launched WIPO GREEN to help disseminate green technologies globally and provide an interactive marketplace for innovation and diffusion. So far, around 1 000 technologies have been uploaded to the site from around the world. The initiative WIPO GREEN, which is also a CTCN partner, is being implemented with support from over 40 public, civil society and private-sector partners.



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Standardization is another enabler of technology transfer. Internationally agreed standards make innovative technological solutions more accessible and affordable for developing countries. To advance in this direction, both public and private sectors need to cooperate to produce a solid standardization agenda through international bodies, such as the International Telecommunications Union, the International Organization for Standardization and the International Electrotechnical Commission.

Education and training

Education and training are key drivers of economic and societal transformation. They provide people with the motivation and know-how to combat climate change locally, nationally and globally. Education and training cannot be achieved through one-off activities – a continuous process is essential.

Article 6 of UNFCCC calls on Governments to develop and implement programmes on education, training and public awareness. In response, the United Nations Alliance on Climate Change Education, Training and Public Awareness – a collaboration of 13 agencies – is promoting Article 6 objectives through both global and country-level action. The Alliance supports:

- Formal education, including climate change in national and local school curricula and teacher training programmes;
- Non-formal education, such as professional skills development for managing climate finance, or training on how to conduct health vulnerability assessments;
- Strategic policy action, such as support for developing national climate-change learning strategies or integrating climate change into education policies and plans.

The One UN Climate Change Learning Partnership (UNCC:Learn) is a vehicle that helps to bring much-needed technical advice, grants and knowledge in these areas through the development and implementation of national climate-change learning strategies. In the Dominican Republic, UNCC:Learn helped to establish a national teacher training programme for climate change in which an initial 400 teachers took part, leading to an expanded programme that will reach 3 000 teachers nationwide.

Another example is the Massive Open Online Course on Climate Change hosted by the World Bank Group on an education platform. This free resource helps to reach out to large numbers of participants to share knowledge in a collaborative space, with interactions through social media.

UN Women, UNDP and other partners focus on training that empowers women to step up to climate-change challenges. In Viet Nam, sustained training of women in disaster management has prepared both women and men to respond to storms and floods. This has enabled communities to prepare their families and villages and evacuate vulnerable people before the arrival of storms, including through mapping and planning.



A woman fires a fuel-efficient stove made in the Rwanda camp for internally displaced people in North Darfur. Thousands of women at the camp are the beneficiaries of the Safe Access to Firewood and Alternative Energy (SAFE) project, run by WFP. UN Photo/Albert González Farran

Capacity development

The UN system has been leading efforts to enhance the ability of Governments and communities to mitigate and adapt to climate change. Capacity-building has been part of the UNFCCC process since its inception, notably in the areas of national communications, GHG inventories, technology transfer, adaptation, and the design and implementation of National Adaptation Programmes of Action by LDCs and National Adaptation Plans by all developing countries.

The UNFCCC's Adaptation Fund finances adaptation projects and programmes in developing countries that are particularly vulnerable to the adverse effects of climate change. Over the past three years, the Fund has dedicated more than US\$ 225 million to increase climate resilience in 34 countries around the world. Governments can apply directly to the Adaptation Fund, but many Governments request UN agencies to work in partnership with them on building national capacity for climate adaptation. Capacity-building is also at the heart of the UN-REDD Programme described above, as well as the UNDP- and UNEP-supported National Adaption Plan Global Support Programme, which is helping countries to integrate resilience measures into national planning and budgeting through the Least Developed Countries Fund.



The UN system is also actively engaged in climate-related capacity-building well beyond the UNFCCC process itself. In fact, practically all UN organizations place a high priority on capacity-development programmes linked to their sector or mandate. As a result, the UN system is helping to develop capacity on managing climate and health, climate and energy, climate and food security, climate and human mobility, and much more.

Partnerships with the private sector

Reducing emissions and adapting to climate change are not just issues for Governments – they involve literally everyone on the planet. To be effective and legitimate, climate policies must engage civil society organizations, community and youth groups, and individual citizens. They must also engage and empower the private sector. With support from coherent policies at the global and local levels, private-sector solutions and innovations can be scaled up and the business sector's unique skills can be brought to bear on the climate challenge.

In 2007, the United Nations Secretary-General launched Caring for Climate as a flagship initiative led by the United Nations Global Compact, UNEP and the UNFCCC secretariat. Caring for Climate recognizes that the private sector drives much of the innovation and investment needed for transitioning to a climate-friendly economy. It offers opportunities for business leaders to advance practical solutions and help shape public policy as well as public attitudes. By requiring

annual reporting, it also provides a transparency and accountability framework. With endorsements from 370 companies, Caring for Climate is the largest business initiative on climate in the world. This initiative also collaborates with civil society organizations.

The UNEP Finance Initiative advances the integration of climate change concerns into private-sector financial decision-making. It advises Governments and UNFCCC on the approaches and instruments best suited for channelling private finance from the conventional economy into the "climate economy". Over 200 banks, insurers and fund managers have signed the UNEP Statement by Financial Institutions on the Environment and Sustainable Development.

The World Bank Group's International Finance Corporation is leveraging the power of the private sector to advance innovative and viable climate solutions for developing countries and working to address policy obstacles to green growth. The Corporation has invested more than US\$ 11 billion in some 600 projects related to energy efficiency, renewable energy generation, clean production, sustainable agriculture, green buildings and climate change adaptation since 2005. The Corporation's treasury has issued US\$ 3.4 billion in green bonds, and the Corporation has helped banks develop new green bond principles to help develop this asset class.

The International Labour Organization engages with workers' and employers' organizations to identify and realize the economic and environmental benefits of low-carbon pathways to development. Much of this work takes place within the framework of the Partnership for Action on Green Economy, which also includes UNEP, the United Nations Institute for Training and Research and the United Nations Industrial Development Organization.

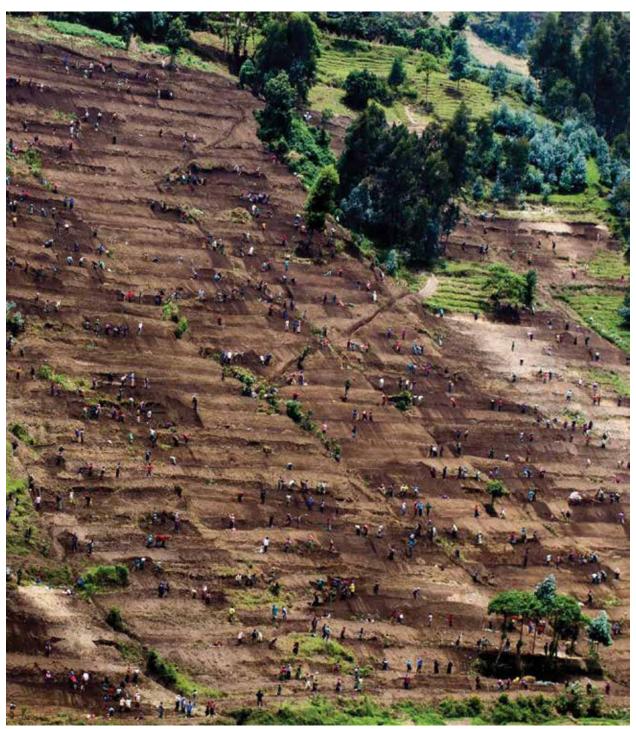
The Rural Resilience Initiative launched by WFP and Oxfam America, with support from the reinsurance company Swiss Re, helps many poor, food-insecure households to access microinsurance, savings and credit for the first time. Swiss Re played a key role in designing and implementing the Initiative's innovative risk transfer solution. The Rural Resilience Initiative gives people the choice of paying for a weather-index insurance package with their labour rather than with cash, which makes insurance more accessible to the most vulnerable.

Data and information for climate action

A strong, diverse and accessible base of data and information is essential for informing climate action. Many data providers are making significant progress in developing new technologies and processes for collecting, processing, integrating and analysing data to generate useful information for decision-making. Organizations of the UN provide standards and recommendations, capacity-building and technical assistance to support effective data systems.

Developing climate adaptation policies, for instance, requires access to downscaled climate projections, historical disaster data, climate hazard maps, health and infrastructure maps, land use and ecosystems data, and much more. United Nations and international organizations are collaborating to integrate these data via online portals using geographic information systems and other tools.

Agencies such as WMO, the World Health Organization, FAO, WFP, the Intergovernmental Oceanographic Commission of UNESCO and the United Nations Office for Disaster-risk Reduction have built partnerships to bring historical disaster-risk data together with climate and



Local community members participating in construction of graded terraces to control soil erosion in Nyabihu District, Rwanda. © Rik Moors/One UN Rwanda

development information to support resilience-building, insurance systems and more. The United Nations Population Fund is using spatial analytics to integrate census and other population, housing and service data into climate adaptation planning, in concert with Governments, the private sector and non-governmental organizations. The United Nations Institute for Training and Research Operational Satellite Applications Programme delivers imagery analysis and satellite-based solutions for the UN and other relief organizations in the wake of human-induced natural disasters and other crises.

The United Nations University, UNHCR and IOM are also developing new approaches to data. They are leveraging evidence on climate-related migration, displacement and planned relocation, including through advances in big data analytics and enhanced knowledge on human mobility prompted by climate change. The United Nations Development Programme has focused on improving access to data for National Adaptation Plans and community-based adaptation plans as a means of ensuring transparency and empowering local stakeholders.