

AT THE GLOBAL LEVEL

The United Nations coordinates its work under the framework of the Chief Executives Board (CEB). Its decisions are supported through the High Level Committee on Programmes (HLCP) and its Working Group on Climate Change.

UN System-wide coordination on Climate Change focuses on a number of major issues in response to the negotiation process and the broader mandates of the UN system. Current work focuses on:

- ▶ Adaptation
- ▶ Capacity Building
- ▶ Mitigation and Finance
- ▶ Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD)
- ▶ Technology Transfer

AT THE REGIONAL LEVEL

Arab Governments through the Council of Arab Ministers Responsible for the Environment (CAMRE) issued **The Arab Ministerial Declaration on Climate Change** in 2007.

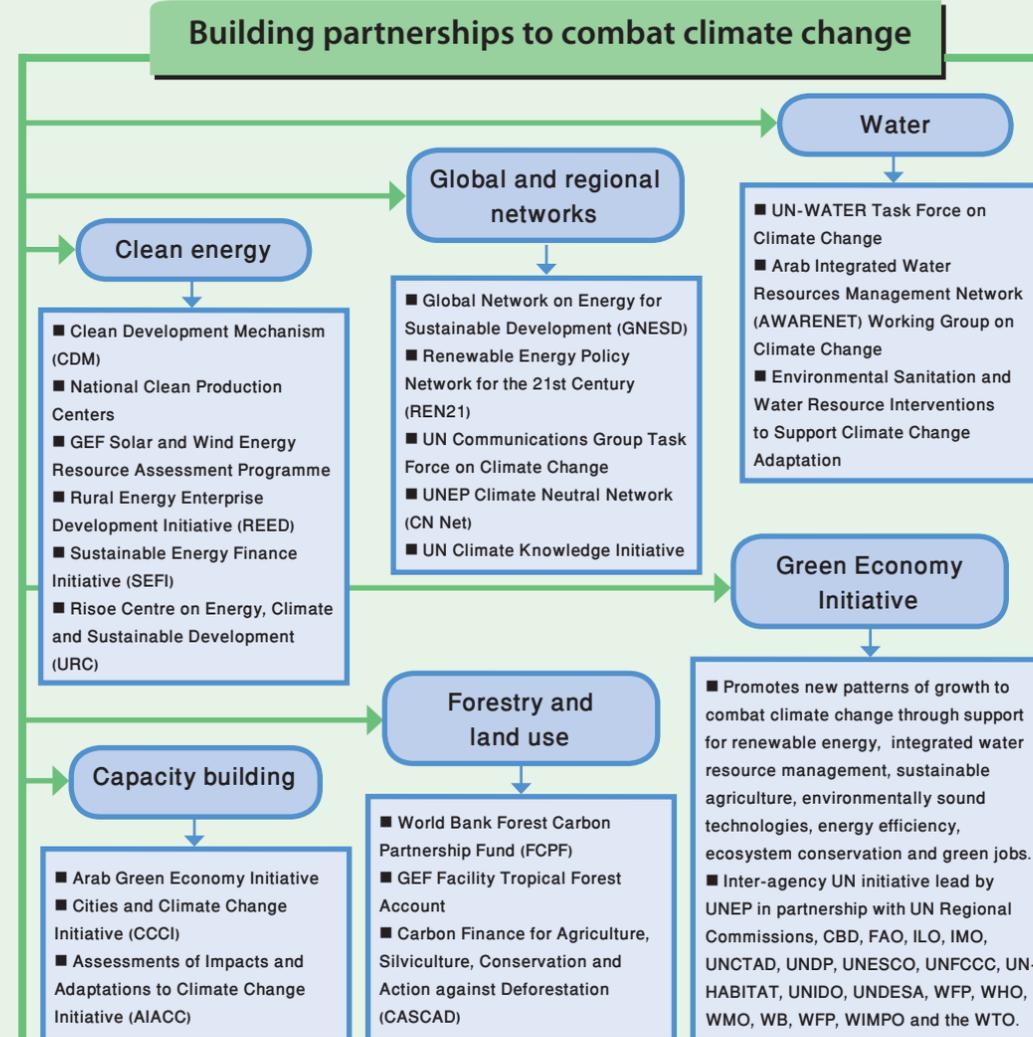
This has been followed by the drafting of **The Arab Framework Action Plan on Climate Change for 2010-2020 (AFAPCC)**, prepared under the auspices of the League of Arab States, CAMRE Technical Secretariat in partnership with ESCWA, the United Nations Environment Programme/Regional Office for West Asia (UNEP/ROWA) and Regional Arab Organizations.

ESCWA IS SPECIFICALLY MANDATED TO:

- ▶ Serve as Designated Convener for cross-cutting areas of United Nations activities supporting global, regional and national actions on climate change, as assigned by the CEB.
- ▶ Provide support to Member States as Secretariat of the Regional Coordination Mechanism (RCM) and as a member of the RCM Working Group on Climate Change, which is led by UNEP/ROWA. This includes:
 - Monitoring climate change impacts and vulnerability
 - Supporting national planning for adaptation
 - Enhancing knowledge sharing
 - Streamlining financial and technical support
 - Building capacity in adaptation
 - Supporting efforts to leverage finance for energy efficiency and renewable energy
- ▶ Develop the AFAPCC in partnership with the League of Arab States and UNEP/ROWA.
- ▶ Build capacities through the Arab Integrated Water Resources Management Network (AWARENET) Working Group on Climate Change.
- ▶ Foster partnership and advise the Arab Countries Water Utilities Association (ACWUA) on water resource protection and climate change

Various United Nations initiatives are implemented through inter-agency collaboration and public-private partnerships to support negotiations and efforts to combat climate change.

UN Initiatives to Combat Climate Change



For more information, visit: The Gateway to the UN System's Work on Climate Change available at: www.un.org/climatechange/



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WORLD ENVIRONMENT DAY
**UNite to Combat
Climate Change**



ESCWA

United Nations Economic and Social Commission for Western Asia



CLIMATE CHANGE is already having significant consequences on the Arab region. Future impacts are expected to be extensive and costly. The impacts of climate change on water resources are likely to affect a wide range of socio-economic and environmental sectors including agriculture, industry, public health, tourism, biodiversity, desalination, hydropower production and river navigation. Additional direct and indirect impacts will be caused by land degradation and changes in urban and coastal landscapes.

The following matrix lists the possible impacts of climate change on various sectors in the Arab Region, suggests associated adaptation and mitigation measures, and identifies actions being undertaken by ESCWA to support member States in these areas.

Sectors	Possible impacts of climate change	Adaptation and Mitigation measures	ESCWA support to member States
Agriculture	<ul style="list-style-type: none"> ▶ Land degradation ▶ Soil erosion ▶ Desertification ▶ Reduction in crop yield ▶ Food insecurity ▶ Increased demand for irrigation water and infrastructure ▶ Salinization of irrigation water, estuaries and freshwater systems ▶ Threats to livestock from changing ecology and disease vectors 	<ul style="list-style-type: none"> ◆ Improve land management ◆ Promote land tenure reform ◆ Reduce soil erosion by planting trees and shrubs ◆ Pursue crop varieties that require less water ◆ Improve grazing land management ◆ Encourage carbon storage in soils ◆ Improve irrigation efficiency ◆ Adopt new technologies ◆ Assist small farmers through training and innovative financing schemes ◆ Establish insurance plans 	<ul style="list-style-type: none"> ■ Promotes sustainable land management policies and tools ■ Supports rural livelihoods through pilot projects and microfinancing schemes ■ Formulates capacity building programmes on land degradation assessment and prevention methodologies ■ Enhances awareness about no-till agriculture ■ Assesses the feasibility of producing second generation biofuels from agricultural waste
Coastal areas	<ul style="list-style-type: none"> ▶ Sea level rise ▶ Coastal erosion from winter storms ▶ Property damage from floods and storms ▶ Oil spills on aquatic and marine ecosystems ▶ Threats to coastal tourism installations 	<ul style="list-style-type: none"> ◆ Promote integrated coastal zone management ◆ Improve coastal planning and zoning ◆ Support shoreline protection programmes ◆ Encourage water-related hazards management ◆ Develop risk preparedness plans 	<ul style="list-style-type: none"> ■ Conducts vulnerability assessment of impact of climate change on water resources, including coastal areas and inland waters ■ Advises small island developing states and low lying coastal areas on vulnerability risks

Sectors	Possible impacts of climate change	Adaptation and Mitigation measures	ESCWA support to member States
Biodiversity	<ul style="list-style-type: none"> ▶ Threats to terrestrial, freshwater and marine species ▶ Increased risk of extinction of vulnerable animal and plant species ▶ Increase in coral bleaching ▶ Stressed fishery resources 	<ul style="list-style-type: none"> ◆ Establish seed banks ◆ Promote agro-biodiversity ◆ Designate protected areas ◆ Improve management of terrestrial and marine reserves ◆ Promote cultivation of domestic plants varieties ◆ Support aquaculture initiatives 	<ul style="list-style-type: none"> ■ Collaborates with regional and global organizations on the protection of biodiversity in face of climate change and development pressures ■ Leads regional preparations for CSD-20 and CSD-21 on biodiversity and biotechnology with United Nations agencies and Regional Arab Organizations
Energy	<ul style="list-style-type: none"> ▶ Productivity and safety of off-shore oil drilling installations affected by rising sea levels ▶ Thermal power plant cooling water systems affected by pressures on water resources ▶ Electricity sub-stations stressed by climate variability ▶ Higher energy consumption drives demand for greater energy production 	<ul style="list-style-type: none"> ◆ Promote renewable energy technologies ◆ Improve energy efficiency in the industrial, residential, commercial and transport sectors ◆ Promote energy efficiency in the construction sector through green design and use of new building technologies ◆ Promote household use of solar technologies ◆ Adopt energy efficiency labelling schemes for household appliances and commercial equipment ◆ Establish monitoring and early warning systems 	<ul style="list-style-type: none"> ■ Promotes the application of energy efficiency measures ■ Formulates the best practices and measures for promoting renewable energy applications ■ Improves modern energy access to rural areas to reduce the inefficient burning of firewood and biomass ■ Develops economic instruments to encourage investment in energy efficiency and renewable energy technologies ■ Assesses sectoral and national GHG emissions and their growth rate
Fresh-water resources	<ul style="list-style-type: none"> ▶ Drought ▶ Floods ▶ Increased water scarcity ▶ Water quality deterioration ▶ Decreased precipitation levels ▶ Decreased river flows ▶ Sea water intrusion into coastal aquifers ▶ Decreased groundwater recharge rates ▶ Increased level of salinity of lakes and aquifers ▶ Increased conflict over scarce shared water resources at national and water basin levels ▶ Increased migration 	<ul style="list-style-type: none"> ◆ Support integrated water resources management ◆ Encourage water conservation ◆ Increase water supply ◆ Promote water reuse ◆ Expand rainwater harvesting ◆ Increase understanding about desalination options ◆ Develop and introduce flood and drought monitoring and early warning systems ◆ Establish drought risk insurance programmes ◆ Strengthen shared water resources management ◆ Raise awareness about threats to rural livelihoods and monitor rural-to-urban migration trends 	<ul style="list-style-type: none"> ■ Builds capacity in integrated water resources management ■ Assesses vulnerability of freshwater resources to climate change ■ Works with United Nations agencies and Regional Arab Organizations to design and provide training on vulnerability assessment methodologies ■ Provides training and technical assistance on shared water resources management ■ Advises member States on the formulation of strategies and action plans for climate change adaptation related to water resources management ■ Monitors and assesses the status of water resources and desalination in the region

Sectors	Possible impacts of climate change	Adaptation and Mitigation measures	ESCWA support to member States
Forest	<ul style="list-style-type: none"> ▶ Deforestation ▶ Loss of carbon sinks ▶ Increased risk of wildfires ▶ Increased dust storms ▶ Increased soil erosion ▶ Loss of habitat 	<ul style="list-style-type: none"> ◆ Promote reforestation ◆ Establish forest reserves and forest conservation projects ◆ Enhance forest monitoring and assessment ◆ Develop strategies and plans for preventing and combating forest fires ◆ Promote use of alternative renewable energy resources in rural and remote areas 	<ul style="list-style-type: none"> ■ Supports the integration of climate change adaptation strategies into national policies and plans ■ Assists in the preparation of disaster and risk reduction strategies and action plans
Industry, trade and transport	<ul style="list-style-type: none"> ▶ Pressure on rural and urban infrastructure ▶ Water shortages for industries, including agro-industries ▶ Loss of agricultural export revenues due to increased water and shipping costs ▶ Impacts on sea port operation and maintenance ▶ Increased refrigeration and cooling water maintenance costs 	<ul style="list-style-type: none"> ◆ Improve public transportation systems and roads ◆ Upgrade seaports ◆ Encourage clean production processes and green products ◆ Promote energy efficiency programmes, including cooling and ventilation retrofitting ◆ Develop regional and local market opportunities to reduce dependence on long-distance international trade and shipping 	<ul style="list-style-type: none"> ■ Encourages investment in clean production technologies ■ Promotes the use of environmental technologies by small and medium enterprises ■ Supports global green economy initiatives ■ Conducts sustainability impact assessment of the impact of trade on climate change ■ Assesses emissions from the transport sector ■ Promotes regional economic integration
Human settlements and Public health	<ul style="list-style-type: none"> ▶ Property loss ▶ Increased potential for human migration ▶ Spread of water-borne diseases and the northern movement of disease vectors ▶ Health effects on elderly, very young and poor ▶ Increase mortality from heat waves, floods and droughts ▶ Increase cost on health services ▶ Water shortage in urban and rural settlements 	<ul style="list-style-type: none"> ◆ Develop and activate early warning systems ◆ Improve public awareness about energy conservation and threats to public health ◆ Launch public preparedness campaigns ◆ Strengthen healthcare institutions ◆ Improve medical recording and reporting on public health emergencies and health trends ◆ Monitor and respond to human migration movement causes and challenges 	<ul style="list-style-type: none"> ■ Increases awareness about water-borne diseases and threats to public health ■ Advises member States and implements initiatives to support rural livelihoods ■ Examines the impact of climate change on vulnerable groups, including women, youth and the elderly ■ Increases awareness about the linkages between climate change and the potential for conflict at the national, regional and global levels

