



Regional briefing on
National Adaptation Plans:

MIDDLE EAST AND NORTH AFRICA IN FOCUS



Regional overview and introduction

Countries of the Middle East and North Africa (MENA) are particularly vulnerable to climate change, mainly due to water-scarcity and extreme temperatures. Climate change is likely to intensify the effects of drought, which is currently one of the biggest environmental challenges faced by the region. Coastal areas are also under threat. Most economic activities are located on the coast, within urban areas. The impact of climate change is anticipated to further exacerbate conflicts and threaten human security in the region.

This Regional Briefing aims to provide a concise overview of the situation of countries in the MENA region in terms of their NAP processes, and to outline emerging issues,

challenges and opportunities.

The overview presented in this briefing draws on the presentations, discussions and outcomes of the Regional Training Workshop for the Middle East and North Africa, which was held in Amman, Jordan from 3-5 April 2017, convened by the Global Environment Facility (GEF)-funded joint UNDP-UN Environment National Adaptation Plan Global Support Programme (NAP-GSP).

The National Communications and National Determined Contributions (NDCs) or Intended National Determined Contributions (INDCs) of MENA countries are also referenced.

In brief

- Adaptation planning is moving forward in the Middle East and North Africa (MENA) region with the **integration of climate change policies** into national development plans.
- Some countries have **initiated National Adaptation Plan (NAP)** processes and sectoral climate change strategies and are building on those existing plans to advance the NAP process.
- Countries are **downscaling climate scenarios** and climate information and conducting climate vulnerability assessments for various sectors.
- A focus on **vertical integration** is necessary, to create strategic linkages between national and sub-national adaptation planning and implementation.
- Regular interaction and coordination between climate change units and **disaster risk reduction agencies** is of high importance.
- At the national level, countries are identifying opportunities to coordinate adaptation efforts between **sectors and regions**.
- Challenges remain with regards to: coordination across horizontal and vertical levels; implementation strategies for long-term adaptation action, including **mobilisation of financial resources**; integration with budgeting process, and strengthening of technical capacities.

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Status of NAP processes in the MENA region

Mainstreaming adaptation into planning

In preparing for adaptation planning, several countries in the region have made good progress in conducting climate assessments. **Egypt, Tunisia and Morocco** have carried out downscaling/adjustment of climate change scenarios, and of vulnerability assessments on the major sectors, particularly water and agriculture. **Algeria** is in the process of preparing a vulnerability assessment for coastal zones. **Saudi Arabia** has also carried out vulnerability assessments and developed climate scenarios focusing on water resources, desertification, agriculture and health. **Palestine** has identified 12 sectors to conduct vulnerability assessments, while climate change scenarios have been developed. For the first time, **Jordan** introduced on its Third National Communication Report (TNC) climate projections with dynamic downscaling until the year 2100 with moderate-high levels of confidence for all climate parameters using 43 grid points.

Institutional arrangements

MENA countries are also strengthening their **institutional arrangements** to coordinate their adaptation efforts, although there are still areas in which they need support, particularly in strengthening the committees and legal frameworks.

Several countries have set up National Climate Change Committees, but for many these have either been inactive or lack a strong legal mandate. Many are in the process of strengthening the institutional coordination arrangements. For example, **Egypt** was looking to reform its National Climate Change Committee, composed of representatives of 26 ministries and institutions, into a national council for climate change. **Tunisia** is also reforming the National Committee for Climate Change with the establishment of a more comprehensive coordination and implementation structure to oversee mitigation, adaptation, climate finance capacity building and partnerships. **Morocco** has a National Committee on Adaptation, as well as a specific Committee for the NAP process, and is working to strengthen their mandates through a legal text. **Jordan, Algeria and Bahrain**, also have Climate Change Committees.

Plans and policies

Several countries of the region are integrating climate change and disaster risk reduction considerations into national policies. **Tunisia**, for example, has a National Strategy for Climate Change, a portfolio for adaptation projects, an early warning system feasibility study, and plans for the development of the green economy and sectorial adaptation strategies for agriculture, coastal protection, tourism and health. **Morocco** has integrated climate change and adaptation as one of the key pillars of its National Sustainable Development Strategy. In **Saudi Arabia**, the Ministry of Environment is leading the development of a national adaptation strategy, and the Ministry of Planning is steering the integration of adaptation activities into the national development plan.

Sustainable Development Goals (SDGs)

Efforts are ongoing in the region to align national adaptation processes with SDGs. Lebanon, Morocco, Tunisia and Egypt are engaged with national consultations and stocktaking for their NAP processes. Water, agriculture, ecosystems, coastal areas, health and tourism are the key national sectors for most countries.

Bahrain has conducted impact assessments in four key sectors: coastal zones, water resources, human health and biodiversity. These results have been shared widely and lay the foundation for integrating climate change considerations into decision-making processes. They conducted a scenario-based flood analysis, using an approach based on vulnerability indexing, which included a coastal vulnerability index. As a Small Island Development State, Bahrain's feels the urgency to address the impact of sea level rise in national policies. Hard coastal protection based on infrastructure will be a key adaptation option for the country, along with capacity strengthening, integrated planning, and local and regional stakeholder engagement.

In **Egypt**, the third National Communication provided an opportunity to update the vulnerability assessments conducted for various sectors, and to provide a selection of adaptation options for each sector, including water resources and agriculture.

Many countries are aware of the importance of developing resilience in infrastructure. However, no significant studies have been made to evaluate the impacts of climate change on infrastructure.

for adaptation. To address the lack of domestic finance, countries are applying to the Green Climate Fund (GCF) and the Islamic Development Bank (IDB) for funds to support the development and implementation of NAPs. Countries of the region are also looking into establishing more partnerships with the private sector.

Mainstreaming gender into adaptation planning requires identifying and leveraging existing policies that include gender considerations. This also necessitates a multi-sectorial approach, involving all climate sensitive sectors, and targeting stakeholders at the national, regional and community levels.

Water scarcity (and poor water quality) remains a key challenge for all the countries in the MENA region. Water-related problems are expected to intensify as average annual rainfalls are projected to decline in the future. In addition, sea-level rise will lead to salinisation of groundwater in coastal areas. Droughts caused by the decrease in precipitation will also impact the agriculture and fisheries sectors.

Moving forward on NAP processes

Challenges

Challenges remain with regards to **long-term implementation**, particularly in relation to integrating adaptation planning with national budgeting processes, financing adaptation options and enhancing technical capacities. At the same time, many opportunities have been identified to improve coordination between sectors at the national level as well as building on the existing plans and policies.

Accessing **finance for adaptation** remains a key challenge. Jordan, for example, has estimated that up to the year 2050, additional US\$5 billion will be needed

In **Morocco**, a decrease of ten to 20 percent in average precipitation is expected, severely affecting the fisheries and agriculture sectors, with resulting impacts on the economy. At the same time, water consumption is expected to increase due to population growth and expanded irrigation schemes. With 60 percent of the Moroccan population living in coastal zones, and most of the economic activities located there, coastal zones are highly vulnerable to the impacts of climate change, particularly from erosion and sea-level rise induced floods.

In **Oman**, climate change is expected to severely impede access to water with up to 40 percent decrease in rainfalls in the north of the country and degraded groundwater. There is an urgent need to balance supply and demand of water, as well as water quality, in a context of increasing socio-economic growth. Greater variability in rainfall and episodes of drought will also have an impact on fragile mountain ecosystems.

Saudi Arabia has critical water-related issues, due to increases in population and agriculture activity. Models have been used to assess the country's future food security situation. It is expected that crop yields would be threatened due to warmer temperatures, reduced precipitation, higher evapotranspiration, low water reserves, and increased frequency of droughts and floods. Adaptation options are being considered when developing water resource management plans, for example, during the design of irrigation supply systems, and strategies for reclaiming wastewater. The Government of Saudi Arabia is also taking action to **control desertification**. This includes; developing policies to reduce urban population and density and develop rural areas; diversifying agriculture through the use of arid-weather-adapted crops; protecting and monitoring forests through the

use of remote sensing tools, afforestation and sand dune fixation; constructing new dams for water storage; introducing environmental legislation to improve forest management, and other measures designed to improve public education and awareness.

In addition to the **management of desertification in the Arabian Peninsula**, adaptation strategies are urgently required to deal with the rising seas in the Arabian Gulf, and its effects on low-lying urban infrastructure, coastal lagoons, salt marshes, and the salinisation of already scarce groundwater.

Opportunities

Adaptation planning at the sectorial level is advanced in MENA countries, particularly in priority sectors such as water, agriculture, health and coastal areas.

NAPs in the context of crises and disasters

The nexus approach to **disaster risk reduction (DRR)** and climate change adaptation (CCA) aims to support sustainable and resilient planning and development. During the NAP-GSP Regional Training Workshop for MENA, countries shared experiences in developing NAPs in fragile contexts amidst crises and disasters.

In a context of **population growth**, there is a gap between the supply and demand of water, which will be exacerbated by the impacts of climate change. A decrease in precipitation is affecting food production and water availability, and all this will certainly affect human security. There is a pressing need to act quickly on DRR, through the use of integrated risk assessments which can better guide adaptation planning.

Algeria: Developing a NAP to promote a climate resilient economy

Algeria aims to develop their NAP to address the adverse impacts of climate change and promote a climate change resilient economy. Priority will be given to the protection of the population, and the preservation of natural resources and key infrastructure against the risks of extreme events.

The adaptation measures mentioned in the Nationally Determined Contribution includes:¹

- Adapting the institutional and regulatory framework to climate change
- Reinforcing institutional and human capacities in combating climate change
- Establishing a monitoring and early warning system and capacity building for managing extreme climate events
- Elaborating regional and local adaptation plans

Egypt: Integrating gender into adaptation planning

Egypt included gender as a cross-cutting element in its third National Communication to the UNFCCC² and developed gender-related recommendations. They aimed to include gender perspectives into DRR efforts at the local, regional and national level; including in policies, strategies, action plans, and programmes. The goal was to improve participation and representation at all levels of the decision-making process.

Climate change data, such as drought, floods and desertification, were analysed from a gender-sensitive perspective. The traditional knowledge and perspectives of women were included in the analysis and evaluation of the characteristics of key disaster risks.

The goal was to ensure that women are seen as visible agents of change at all levels of disaster preparedness, including early warning systems, education, communication, information and advocacy. National and local women's groups were consulted and provided with a platform to be heard. Gender-specific indicators to monitor and track progress on gender equality targets were also developed.

NAP-GSP Regional Training Workshops

The NAP Regional Training Workshop for MENA was held in Amman, Jordan, from 3-5 April 2017. This workshop was part of a global series of NAP-support regional training workshops, which have been held in globally since 2014, supported by the GEF-funded joint UNDP-UN Environment NAP-GSP.

More than 30 policy-makers from Environment, Planning and Finance Ministries from 13 MENA countries – supported by more than 25 representatives from UN agencies and other development partners – gathered for the three-day workshop. MENA country delegations identified key requirements to advance the NAP process and highlighted the value of considering climate change in macro-economic assessments for development planning. The objectives of the workshop were to increase countries' understanding of the NAPs process, to accelerate adaptation planning and implementation; to take stock of progress on NAPs; exchange lessons learned and experiences, and identify where additional support is required. The workshop used an interactive format, with a combination of presentations, panel discussions and participatory group exercises. Each country also developed a NAP workplan. The Workshop Report, news and materials, are available at:

www.globalsupportprogramme.org/MENA

About the NAP-GSP

The joint UNDP-UN Environment National Adaptation Plan Global Support Programme (NAP-GSP), funded by the Global Environment Facility (GEF), assists least developed and developing countries to identify technical, institutional and financial needs to integrate climate change adaptation into medium and long-term national planning and financing. The programme supports the process to formulate and implement National Adaptation Plans (NAPs) under the UN Framework Convention on Climate Change (UNFCCC). In doing so, the NAP-GSP works with development partners to implement the Nationally Determined Contributions and promotes ambitious climate action in alignment with the Sustainable Development Goals.

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¹ Algeria Nationally Determined Contribution, 2016

² Egypt Third National Communication to the UNFCCC