



National Adaptation Plans in focus: Lessons from Morocco



Morocco is situated in the north west of the continent of Africa. The territory extends over 710,850 km² and the coastline covers 2900km on the Atlantic Ocean, as well as 512 km of coastline on the Mediterranean Sea. The Moroccan population is approximately 33.8 million people. Morocco has enjoyed a comparatively steady political and economic development trajectory compared to neighbouring countries.

The services sector accounts for 55 percent of GDP, whilst industry (primarily mining, construction and manufacturing) makes up almost 30 percent — with tourism being one of the sectors which has experienced the most growth. However, the country still depends heavily on the agriculture and fisheries sectors. While these sectors account for only about 15-20 percent of GDP, they employ 40 percent of the national population, and close to 80 percent of the rural population.

The economy grew by an average of 4.3 percent in the period between 2008 and 2013, which has contributed greatly towards reducing poverty. Extreme poverty has almost been eradicated throughout Morocco. However, approximately 20 percent of the population (6.3 million people), remain vulnerable and are under continual threat of falling back into poverty. The human Development index of Morocco is 0.647, ranking 123rd out of 188 countries globally.

The Moroccan climate is characterized by a high spatio-temporal variability. There are two major climatic zones in Morocco: the Northern regions (north of the High Atlas) which are influenced by Mediterranean and Atlantic climates, with differences between coastal, interior and mountain areas; and the Southern regions (south of the High Atlas), which have a semi-arid to desert climate with irregular rainfall.

Climate change risks

Future climate trends in Morocco include rising temperatures of 1–1.5°C by 2050 (rate of warming faster in the interior) and a decrease in average precipitation by 10–20 percent across the country, and 30 percent decrease for the Saharan region by 2100. This would lead to an increase in droughts, which would impact the agriculture and fisheries sectors. This in turn would impact the Moroccan economy; as evidenced by the 2016 drought. This was the worst drought in 30 years, reducing crop yields by 70 percent, in part contributing to a deceleration in economic growth of 1.7 percent. In addition, rising sea levels pose a high risk to coastal urban areas and the tourism sector, combined with increases in coastal erosion.

Sixty percent of the Moroccan population, and the majority of the country's economic activities, are located in coastal zones. Forty-two percent of the Moroccan coastline will be at high risk of erosion and floods by 2030.

Another major climate risk for Morocco is the impact of climate change on already limited and declining water resources. Water resources are projected to decline due to an increase in drought conditions. At the same time, water demand is expected to increase due to population growth, expanded irrigation schemes and a projected climate-induced rise in temperature. This will lead to potentially severe water shortages by 2020, particularly in the south of the country.



Groundwork for supporting the process to formulate and implement the NAP

Policy, planning and budgeting

Morocco has developed several overarching policies and high-level documents that promote and enable climate resilient development. These include the new Constitution, which promotes sustainable economic development, in line with the protection of the environment and geographic, heritage, cultural and historical wealth. In addition climate resilient development is supported by the National Charter for Environment and Sustainable Development (CNEDD, 2009) which is operationalized through the National Strategy for Sustainable Development (NSSD) for 2017-2030.

The National Plan Against Global Warming (PNRC, 2009) identifies a portfolio of actions undertaken by the government to fight climate change. The plan includes adaptation, mitigation, and transversal actions.

In 2014, Morocco developed its National Climate Change Policy (MCCP) as a coordination tool of the various measures and initiatives on climate change. It provides an operational framework for the development of a medium and long-term strategy, with a vision for 2040. The policy is dynamic, participatory and flexible, to promote low-carbon climate-resilient development. It includes an adaptation component and a mitigation component, in addition to some key strategic and cross-cutting horizontal pillars. These include; reinforcing legal and institutional frameworks, knowledge and territorial approaches; preventing and reducing risks; promoting research, innovation and technological transfer; and financing climate change.

The adaptation component identifies eight strategic sectors (see table overleaf), and it highlights the development of a NAP that should identify priority activities to address adaptation requirements.

In 2015, Morocco submitted its Intended Nationally Determined Contribution (INDC) which is based on the NSSD, and outlines a vision of Morocco for 2030. Regarding adaptation, Morocco intends to implement a sectoral approach, adapted to its varied natural conditions. The INDC sets several quantified sectorial goals for 2020 and 2030, which focus primarily on the water sector. In 2016, Morocco submitted its first Nationally Determined Contribution (NDC) which sets new objectives for 2020 and 2030 for agriculture, fisheries and aquaculture, in addition to refining the objectives set by the INDC for water.

For financing adaptation, Morocco has devoted 64 percent of all climate-related spending over the period 2005-2010 to adaptation. This represents nine percent of overall investment expenditure.

Morocco expects to dedicate at least 15 percent of its overall investment budgets to adaptation to climate change in the future. In the NDC, Morocco estimates that the cost of implementation of adaptation projects between 2020 and 2030 for the water, forestry and agriculture sectors — the sectors most vulnerable to climate change — will total more than USD 35 billion.

Strategic Sectoral Pillars for Adaptation (MCCP, 2014)

1. Water
2. Agriculture
3. Fishing
4. Forestry and fight against desertification
5. Biodiversity
6. Health
7. Tourism
8. Housing, town planning and territories

Preparing for adaptation planning

Morocco has carried out various studies to assess climate change impacts and vulnerabilities at the national level. This includes state-of-the-art GIS-based catastrophe risk modelling, and the Morocco Natural Hazards Probabilistic Risk Assessment (MnhPRA) — which allows for an analysis for risks of earthquake, flood, tsunami, drought and landslide across Morocco. The regions of Sous Massa and Oasis have benefited from several studies and pilot adaptation initiatives. However, many gaps remain, particularly regarding the acquisition, management and consolidation of climate risk data.

Morocco has submitted three national communications to the UNFCCC (2001, 2010 and 2016). The Third National Communication (2016) includes a summary of the most recent climate projections and studies.

A system to monitor and assess vulnerability and adaptation to climate change has been piloted, to provide the country's regions with an institutional mechanism to monitor climate sensitivities and the results of adaptation actions. This monitoring system also takes gender issues into account. The pilot project was first tested in southern Moroccan regions, with views to be expended to other regions.

Implementation of adaptation actions

Morocco is involved in various adaptation actions and projects, with subnational, national and regional scopes (MENA or African). Most adaptation interventions in Morocco address urgent needs in the agriculture and water sectors. Morocco has also undertaken actions to integrate disaster risk management (DRM), particularly focussing on floods and erosion.





The process to formulate and implement the Moroccan NAP

Institutional arrangements

The existing institutional framework in Morocco was built gradually to meet the requirements of the UNFCCC. Morocco's National Committee for Climate Change was established in 2007 and oversees all climate-related activities. The committee is chaired by the Department for Sustainable Development, which is also the national focal point for the United Nations Framework Convention on Climate Change (UNFCCC).

An Inter-ministerial Monitoring Committee (CIS) composed of national experts (from public agencies, universities, consultant firms etc.) was set up to support the development of the Third National Communication.

The Secretary of State for Sustainable Development set up a National Adaptation Committee, inviting all CIS institutions to designate at least two focal points on adaptation.

The Moroccan Competence Centre for Climate Change (4C Maroc) provides a capacity-building and information-sharing platform on climate change. This is available to various stakeholders and has a regional and African outreach.

Morocco is currently implementing changes to help improve the institutional framework. A Central Directorate is being created within the Ministry of Environment, focussing on climate change, biodiversity and green economy.

NAP activities

Morocco commenced the adaptation planning process in 2015, following the adoption of the MCCP. A first study was carried out by the Ministry of Environment and GIZ, in 2015-2016, to analyse how adaptation has been taken into account in sectoral planning. The study concerned water, agriculture, forestry, tourism, road infrastructure and human health — the six pilot sectors that were identified priorities in the Third National Communication.

Subsequently, the Ministry of Environment organised a national workshop to apply the Stocktaking for National Adaptation Planning Tool (SNAP), in October 2016, with the support of GIZ. The workshop identified and assessed needs and capacities for adaptation planning, and developed a first draft of the Roadmap for the development of a NAP in Morocco.

Regional consultations on the roadmap were also undertaken in workshops organised in two regions of Morocco in March 2017.

In April 2017, another workshop was organised, focussing on the capacity building priorities identified by the roadmap. The workshop was aimed at developing and strengthening the technical skills of the adaptation focal points of various Moroccan ministries and local institutions. The workshop was organised with support from GIZ, the NAP-GSP and UNITAR. During the workshop, the draft roadmap was revised and developed, to advance the process to formulate and implement the NAP in Morocco.

What is the process to formulate and implement NAPs?

The Conference of Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) established the National Adaptation Plan (NAP) process in 2010, to enhance country-led planning and preparedness for climate change adaptation (CCA) in the medium and long-term. The objectives of the NAP are to reduce vulnerability to the impacts of climate change and to integrate adaptation into all levels of development planning. The NAP process is multi-sectoral, involving Ministries of Environment as well as Planning and Finance, in addition to other key Ministries. By bringing greater institutional integration and coordination to adaptation planning, NAPs can enhance ongoing national development planning processes, safeguard development gains, and build resilience.



Challenges

The existing institutional framework is not conducive to the effective implementation of the MCCP. It does not effectively coordinate and arbitrate public policies, and requires further strengthening. Governance structures, which constitute the foundation for a coherent and participatory implementation, require further strengthening. In addition, it is important to broaden the ownership at the provincial and local levels, to promote the effective implementation of the Territorial Plans to fight against Climate Change (PTRC), in accordance with the National Strategy for Sustainable Development 2017-2030. Several studies on adaptation in Morocco highlight the challenges in acquiring, managing and consolidating data relating to climate risks and vulnerabilities. Therefore it is necessary to strengthen systems for predicting, observing and monitoring climate change impacts, and to improve risk-informed decision-making.

Successes

As part of the process to formulate and implement the NAP in Morocco, many preliminary consultation workshops have taken place, both at national and local levels. This has helped to generate a common vision about the opportunities and challenges, and the strategies to explore, towards a successful NAP. The outcomes of these consultations have been compiled in an ambitious NAP roadmap.

Opportunities

- Collaboration with the private sector is a key opportunity; further discussions will take place to define its role and discuss contributions to planning and financing adaptation projects.
- Discussions with climate-active NGOs and civil society organisations are also necessary, to further strengthen their involvement in the process to formulate and implement the NAP.
- A NAP Assembly with all development donors and stakeholders active in Morocco is scheduled, following a series of bilateral meetings to discuss their potential support to the NAP process.
- Two regional brainstorming workshops are planned, to discuss approaches and tools for integrating adaptation into territorial planning.
- A national workshop will take place, to discuss the results and propose options for vertical integration of adaptation into development planning.
- A NAP readiness proposal for the GCF is being finalised, for early 2018.

Key documents

- Morocco's Climate Change Policy - MCCP, 2014
- NDC, 2016
- Third National Communication, 2016

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strategic
adaptation
priorities in
MCCP

9%

of government
budget on
adaptation

USD 35bn

cost of adaptation
projects 2020-2030

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National
Communications

80%

of rural population
employed in
agriculture

About the NAP-GSP

The joint UNDP-UN Environment National Adaptation Plan Global Support Programme (NAP-GSP) was launched in June 2013, financed by the Global Environment Facility (GEF) Least Developed Countries Fund (LDCF), and the Special Climate Change Fund (SCCF). The NAP-GSP, together with partners, are assisting developing countries to identify technical, institutional and financial needs to integrate climate change adaptation into medium and long-term national planning and financing. The NAP-GSP provides technical expertise and guidance on country NAP processes, and provides opportunities for knowledge exchange on NAPs.

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NATIONAL ADAPTATION PLAN GLOBAL SUPPORT PROGRAMME