

Terms of reference for policy-supporting research

Concept note on

How to better integrate the environmental dimension in the Belgian development cooperation in Morocco – Nexus development & climate

Summary

Climate change, and more broadly environmental issues, are at the heart of the reflection engaged by Morocco on its development model. Indeed, according to the fifth GIEC report¹, Morocco is located in a geographic area that can expect, at the end of the 21st century, a warming between +1.5°C (optimistic scenario) and +6°C (pessimistic scenario) ; a reduction of annual rain between 20% (optimistic scenario) and 40% (pessimistic scenario) and an increase of sea level estimated between 18 to 59 cm.

Morocco is thus particularly vulnerable to climate change. This vulnerability particularly concerns strategic sectors for the country : water, agriculture, soils/forests, coast, fishing of even tourism.

Although not intervening directly in Morocco in the fight against climate change, Belgium has integrated this dimension into a certain number of projects / programs, under bilateral but also non-governmental cooperation, which help promote solutions. in terms of adaptation/mitigation of climate change.

However, this environmental dimension usually only appears as secondary to other priorities, often more productive-oriented (agricultural sector development for example) or very specific (academic research projects). The environmental dimension fits more generally into broader approaches favoring the socioeconomic impact for populations that are mainly rural and as such more vulnerable.

Development trajectories can have both negative and positive effects on the environment and climate. Development can also contribute to climate change adaptation. **The purpose of the research would be to analyze how the Belgian Development Cooperation can better deliver in terms of environmental impact in the projects implemented ? How can we better (re)conciliate environmental and climate issues and the socio or socio-economic dimension?**

How can Belgium ultimately contribute to taking environmental issues into account in the Moroccan development model?

¹ <https://www.ipcc.ch/assessment-report/ar5/>

I. CONTEXT

a) Morocco in front of climate change

Already measurable effects

The footprint of global climate change is already clearly visible in Morocco: the country's average temperature has increased by + 0.42 ° C / decade since 1990 and the decrease in rainfall is estimated at more than 20% between 1961 and 2005. Average of the projections of the different climate models indicates that this tendency to aridification will continue, with by 2050 an additional increase in temperature of +1.5 ° C (+2 ° C) and a decrease in precipitation of -15 % about. Some models project a much greater decline in precipitation, on the order of -40%. By 2050, the projections for the development of extreme rains are not always statistically significant. On the other hand, the frequency of heat waves and droughts is expected to increase sharply. Yields from non-irrigated agriculture will be negatively affected, with a decline that could exceed 40% in some areas for wheat and barley. Globally, the water requirements of plants are likely to increase sharply, necessitating increased use of irrigation, while at the same time the flow of rivers could decrease by more than 30%. The match between the available water resources and the needs of the agricultural sector therefore seems relatively uncertain. In addition, the energy sector could be affected by a reduction in the production capacity of thermal and hydraulic power plants. Finally, 1.82 million Moroccans currently live in areas that would be permanently submerged in the event of a sea level rise of more than 40 cm, a value very likely for the end of the century.

An already remarkable impact on human activities

- Water resources : Water resources depend not only on water supply through precipitation but also on atmospheric demand (evapotranspiration), which increases with air temperature. Therefore the combination of the decline in rainfall and the increase in temperatures projected for Morocco in all scenarios threaten the country's water resources.
- Agriculture: The impact of climate change on agriculture in Morocco has already been the subject of a number of modeling studies. They show an increase in water needs varying between + 8% and + 27% depending on the crop, a significant drop in the yields of rain-fed cereals and vegetables (from -5% to -30%) but an increase in yields for the crop. irrigated agriculture, which would benefit from climate change. However, these projections do not take into account projections of a decrease in water resources and therefore the risk that these resources will become insufficient to maintain or develop irrigation and effectively allow an increase in yields in the context of climate change.
- Energy : The decrease in water resources projected by the models will affect the reserves available for irrigation but also for energy production. Indeed, for the North of Morocco, studies project a decrease in the usable hydroelectric capacity of more than 15% in 2050 compared to 1971-2000. Decreased river flows and increased temperature can also affect the cooling system of thermoelectric power plants.
- Health : The increase in temperature also means an increase in extremes of heat. Prolonged exposure to high temperatures can have deleterious effects on human health, especially for the most fragile or exposed populations. Studies have shown using an empirical model linking the risk of mortality of over 65s to the temperature and humidity of the air that in Morocco this risk would be increased by a factor of 2 to 5 in summer period by 2050, or even by a factor of 3 to 8 depending on the scenario selected. In addition, the risk of excess mortality does not only affect humans but also farm animals.
- Tourism : Global warming is causing the average sea level to rise due to thermal expansion of the ocean and melting land ice. The projections proposed in the latest IPCC report for 2050 are between +15 cm and +35 cm approximately. However, it cannot be ruled out that these projections may be underestimated due to the great uncertainties hanging over the future evolution of the Greenlandic and Antarctic ice caps, whose contribution to sea level rise has significantly increased in recent years. For Morocco, this rise in sea level will have an impact not only on populations living in low-lying coastal

areas, but also on tourism via the risks of submerging beaches or infrastructure. As an order of magnitude, based on the current Moroccan population, 1.82 million people would be affected by a sea level rise of +0.44 m. For +0.39 m, about 50% of the beaches between Saidia and Ras el Ma would be eroded and for +0.89 m almost all the beaches of Tangier would disappear, as well as 84.5% of the tourism infrastructure in the area. In addition, the decrease in water resources will probably result in an exacerbation of competition for water use between tourism and other activities. The increase in the magnitude and frequency of heat extremes could also affect tourist attendance during the summer period.

b) Policies and international position of Morocco

Morocco has adhered to a set of international and regional environmental agreements and has developed its environmental cooperation much more actively since 2002 (see Paris Agreements/Marrakech UNFCCC COP 22). It participates in international events and meetings relating to the preservation of the environment. It has adopted the main international declarations and ratified most of the international conventions, agreements and protocols. Morocco aims to adapt its national legal arsenal relating to the environment, in order to meet its commitments. Several programs and action plans have been developed and international financial resources has been mobilized to support these initiatives, particularly in the form of grants and loans related to climate change, biodiversity, waste management, and the supply of drinking water, irrigation water management or liquid sanitation issues, etc.

Morocco has been able to attract significant amounts of climate finance thanks to its ambitious climate policies and international commitment. Indeed, this commitment allowed it to establish the necessary credibility to obtain funding. In the Middle East and North Africa (MENA) region, Morocco is positioned as a leader in terms of public funding that it has been able to secure, overall it is 784 million dollars invested. For the implementation of the CDN, Morocco has estimated its needs at 85 billion USD over 10 years (2020-2030), 24 billion of which are conditioned by international support thanks to climate finance mechanisms.

Through the Green Morocco Plan, Morocco is clearly committed to a productive approach, in connection with the increase of its agricultural exports. The Moroccan Ministry of Agriculture specifies (Agriculture in figures - 2016): "Improving the level of agricultural and food exports has always been one of the fundamental objectives of agricultural policy. These exports in 2016 were estimated at 21.3 billion dirham with an increase of 21% compared to 2015 and a contribution of 11.6% in overall exports".

c) Belgium Development Cooperation in Morocco

Belgian intervention in bilateral cooperation has long focused on sectors closely related to environmental issues, namely agriculture² and water/sanitation³, particularly in oasis areas. DGD and Enabel are working together to increase the importance of thematic environmental and climate programmes in its bilateral portfolios. Guiding documents are the DGD strategy note on environment, DGD climate vision and a recent DGD-Enabel joint thematic framework on environment and climate.

² Agricultural sector : Projet de développement de la filière des amandiers dans la région de l’Oriental; Projet de développement des filières du safran et palmiers dattiers dans les régions de Souss-Massa et Drâa-Tafilalet ; Programme d’appui des groupements d’intérêt économique pour le développement de ma filière phoenicicole au niveau des oasis marocaines.

³ Water : Programme d’appui à la gestion intégrée des ressources en eau - A3BH (institutional and operational project to support 3 ‘Agences de Bassins Hydrauliques’).

In the non-governmental cooperation, academic actors are strongly engaged on topics related to climate change or environmental issues⁴.

II. DEFINING THE PROBLEM AND IDENTIFYING THE FIELDS OF ACTIVITY

Beyond the commitments made by the country, in particular during Cop 22, the outlook may appear worrying. This dimension is therefore now at the heart of development issues and has become a major theme of Moroccan development policies.

Despite the fact that 'environment' is put as a transversal theme in most of the projects of the Belgian Development Cooperation, environmental issues could be better integrated in the midst of more economic and/or social considerations.

In order to increase the consideration of environmental issues in Belgian projects, it would be useful to have an external point of view on **how the Belgian cooperation can better contribute to the mitigation of climate change and adaptation to the adverse effects of climate change in Morocco and better integrate the environmental issues in its projects and (re)conciliate environmental issues and the socio or socio-economic dimension**. Appropriation of the environmental issue by all actors is indeed the condition for the success of the new development model that Morocco intends to promote.

The *Conseil Economique Social et Environnemental* – CESE has developed a very interesting point of view in its new development plan under discussion which specifies in its action plan that Morocco should :

- ❖ Accelerate the implementation of adaptation programs to climate change relating to sectors deemed to be the most vulnerable (water, forestry and agriculture). These programs revolve around the protection of populations, sensitive production systems and Morocco's intangible heritage.
- ❖ Set up climate-sensitive budgeting and an operational national steering committee for the implementation of the National Climate Plan (PNC) and the alignment of sector strategies with the NDCs (Nationally Determined Contributions) and the National Adaptation Plan (PNA).
- ❖ Territorialize the governance of sustainable development by integrating it into the framework of advanced regionalization and by training local elected representatives in their new attributions, in accordance with the requirements of the law n°99-12.

Therefore, the research could support the Belgian Development Cooperation and its various actors in order to analyze:

- How to reconcile environmental commitment (around water uses) and support for a productive sector policy and / or based on the development of exports?
- How do our project documents integrate / reconcile these different dimensions?
- How does the reporting we use make it possible to report medium / long-term changes?
- How is our knowledge management efficient? What do we do with the experience accumulated over the course of projects on the same territory?

⁴ For example: Institutional cooperation program – CUI of VLIR with the Université Moulay Ismaïl – Meknès (environment and territories/ environment and health/management of water resources/etc); sustainable management of phoeniciculture with ARES and Université d'Oujda

- What more can we bring to Morocco? What could be our added value in terms of environment/climate change ?

III. EXPECTED RESULTS OF POLICY SUPPORT FOR BELGIAN DEVELOPMENT COOPERATION

The mission of the academic expert would ideally starts in quarter 2 or 3 for a duration of maximum 50 working days spread over a period of three to six months.

The expert (preferably development sociologist, with a deep experience in environment – not the classical agriculture perspective) will contribute to both theoretical and formative study, through the formulation of recommendations and the organization of one or more workshops.

The researcher will do some desk review in Belgium and meet actors based in Morocco.

As a result, the research will:

- Contribute to a better knowledge of environmental issues and its fields of interventions (synergies and complementarities improvement);
- Contribute to the definition of Belgium's priorities in Morocco in terms of environment and climate change;
- Contribute to the development of win-win relationships between experts and institutions as well as create new dynamic/opportunities.

The research will, among others, present a mapping of initiatives of environmental cooperation in Morocco and identify existing strategies of the different partners (national institutions, Development partners, private sector). An analysis of the institutional capacities of the key Moroccan actors, will also be conducted in order to identify the institutional support needed and the best approach to adopt.

At the end of the research, a **workshop** will be organized with actors of environmental cooperation.

In a broader perspective, the research will position Belgium as a recognized actor on the thematic of Environment and Climate Change and strengthen the links between Belgium and Morocco on a theme of prime importance for the country.

Expected results are :

- Identify and avoid any harmful environmental impact, direct or indirect, resulting from strategies and programs in the various areas of cooperation
- Identify and implement opportunities to improve environmental conditions, thereby bringing added value to economic and development activities while advancing environmental causes
- Promote better dialogue on the environment with Morocco and partners, based on technical, economic and social arguments in favor of a more environmentally friendly approach in policies and programs.

Possible mid-term working areas :

- Implementation of specific indicators (linked to next PC and CSC) contributing to an environment roadmap for Belgium development cooperation in Morocco
- Green sensitive budgeting responding to multidimensional aspect of environment and necessary awareness of main development actors
- Develop instruments/tools to better integrate the environment as a joint priority in the projects of the Belgian development cooperation.

IV. Follow-up and monitoring of the expected products described in the ToR

The follow-up of this PSR will be done by an Ad Hoc Working Group with Belgian actors involved in environmental cooperation (Ambabel Rabat, DGD, Enabel Maroc, NGA). This group would be chaired by Ambabel Rabat. The group will also ensure the continuation of the process after the duration of this PSR.

The results of the research will support the further elaboration of a future bilateral program as well as the Common Strategic Framework on Non-Governmental Actors. In addition, it will support Enabel and other Belgian actors to position themselves on the thematic of climate change / environment cooperation to maximize their impact (with Belgian or external fundings).

More broadly, the research should also contribute to:

Strengthen multi donor coordination ;

- Link with EC Green deal agenda and implementation in Morocco;
- Initiate collaboration with thematic group on climate change;
- and raise BIO interest for Moroccan situation and challenges.

References

Guide d'accès à la finance climat – Secrétariat d'Etat chargé du développement durable

https://www.4c.ma/medias/guide_dacces_a_la_finance_climat_bat_12_07_19_vf.pdf

Stratégie nationale de développement durable / 2030 – Secrétariat d'Etat chargé du développement durable

https://www.4c.ma/medias/synthese-sndd_fr.pdf

L'économie vert au Maroc - UNECA

https://www.uneca.org/sites/default/files/uploaded-documents/SROs/NA/AHEGM-ISDGE/egm_ev-maroc_fr.pdf

Rapport sur l'état de l'environnement du Maroc – Secrétariat d'Etat chargé du développement durable

<https://environnement.gov.ma/PDFs/Rapport-reem.pdf>

Le nouveau modèle de développement du Maroc – Conseil Economique, Social et Environnemental

http://www.ces.ma/Documents/PDF/NMD/CESE-Nouv_Modele_de_Devt-f.pdf

Lignes directrices pour l'intégration de l'environnement et des changements climatiques dans la coopération au développement

<https://op.europa.eu/fr/publication-detail/-/publication/96f81335-d823-4e0d-9ad1-fbdaca6c4723/language-fr>