Morocco's INDC – A leading climate action commitment from the Arab region

A new wave of climate leadership is coming from the African continent. On 5 June, Morocco became the third African nation, following Ethiopia and Gabon, to submit its climate action commitment (or Intended Nationally Determined Contribution – INDC). With its timely submission, the host of the upcoming UN climate summit in 2016 also is the first Arab country to put forward its plan to transition its economy from fossil fuels to renewable energy. This is an important step towards the new global climate agreement, due to be signed in Paris this December.

Based on the country's capacities and responsibilities, the Climate Action Tracker (CAT), a scientific analysis produced by four research organizations tracking climate action, rates Morocco's INDC targets as „sufficient". This makes the Moroccan INDC the first which is in line with limiting global warming below 2°C, provided that other countries also contribute their fair share through comparable efforts.

What are the targets?

The Moroccan INDC encompasses two economy-wide targets covering CO_2, CH_4, and N_2O: One unconditional target and another based on support provided by richer countries to unlock the country's maximum ambition.

- Unconditional target: By investing around $10 billon into greening its economy, Morocco will cut its greenhouse gas (GHG) emissions including land use, land use change and forestry (LULUCF) unconditionally by 13% below the Business as Usual (BAU) scenario by 2030 from 2010 levels;
- Conditional target: If Morocco receives $35 billion by 2030 for financial, technical and capacity-building support through climate finance mechanisms and if a new legally-binding agreement is struck in Paris, the country would increase its target up to 32% below BAU by 2030;

Due to its acute vulnerability to climate change, Morocco's INDC also includes a climate adaptation component which will be complemented by the development of a National Adaptation Plan (NAP). This plan will focus on decreasing the vulnerability of the country's largely agrarian population and better coordinating the envisioned actions.

- Adaptation target: Morocco seeks to continue its efforts to increase the resilience of key infrastructures, vulnerable populations and fragile ecosystems, especially in the mountain, oases and coastal areas, by devoting at least 15% of its overall investment expenditures to adaptation actions. These will include measures, such as, integrated water resource management and artificial refill of aquifers, anti-desertification measures, protection of cultural heritage, and conversion of grain crop areas to fruit plantations.

How ambitious and fair is the Moroccan INDC?

Morocco is responsible for less than 0.2% of global GHG emissions. Its annual per capita emissions – 3 tons – are four times lower than the average industrialized country. Despite the country's small impact on global emission levels, Morocco's progress in climate policy planning and institution building over recent years has been commendable. It has built the policy and institutional framework to match its goals towards a climate-compatible and low-carbon development pathway. As a result of these political efforts, Morocco already is the biggest recipient of international climate funds, as confirmed by the Overseas Development Institute (ODI). Furthermore, the 2015 Climate Performance Index published by Germanwatch and Climate Action Network Europe currently ranks Morocco among the top ten countries globally and first among African and developing countries based on its climate and energy policies.

Being the first Arab country to submit its INDC, Morocco continues to demonstrate its political willingness and responsibility to fight climate change by promoting an ambitious outcome at the 21st Conference of Parties (COP 21) in Paris, both as a regional climate policy leader and as the host of the COP 22 in 2016. The kingdom's suggested mitigation and adaptation actions to achieve the INDC targets are coherent with national policies and a clear follow-up of its previous efforts. They demonstrate that in developing countries, the right policies can help eradicate poverty and fight climate change at the same time.

Driven by an increased energy demand Morocco has seen a steep increase in its emissions in recent years. Total greenhouse gas pollution almost doubled in the last decade and 94 million tons (MT) of GHG were emitted in 2010. If this current trend continued emissions could rise another 80% to 171 MT by 2030 under the projected BAU scenario.

However, the unconditionally pledged 13% GHG reduction would lead to an increase by „only" 129 MT in 2025 and 148 MT by 2030. This equals a cumulative GHG mitigation of 142 MT compared to BAU. Provided the conditions for the 32% target would be met, the emissions would increase even more slowly reaching 104 MT in 2025 and 117 MT by 2030 (four times its 1990 levels). Thereby, the country would shift to significantly lower emission levels and save 401 MT GHG over the BAU period 2010–2030.

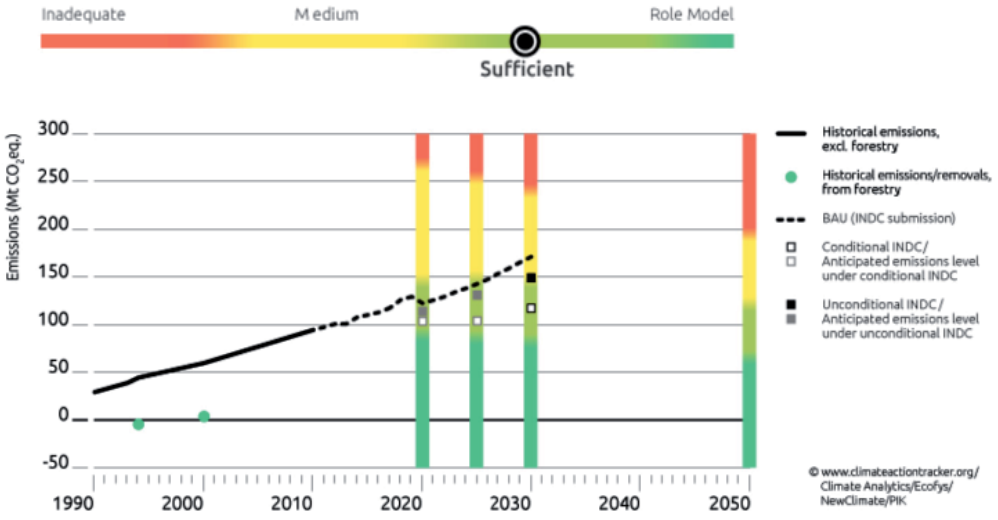

Figure: How ambitious is Morocco's INDC?

(Climate Action Tracker, 2015, http://climateactiontracker.org/countries/morocco.html).

For a developing country whose future focus will be on adaptation due to its high climate vulnerability, setting formal targets for curbing its emission trend downwards by 13% or 32% respectively already means a significant strengthening of ambition. However, the kingdom has gone further. According to the CAT, „Morocco is doing its fair share of global efforts to hold warming below 2°C" because it ranks at the more ambitious end of its fair contribution (see figure). Against this background, Morocco's INDC must be regarded a positive step that other countries should emulate.

What are the actions?

Morocco's INDC features economy-wide emission reduction targets and timeframes. In order to achieve the targets set in the INDC, the country has indicated which additional mitigation actions it will implement. The unconditional target is based on the implementation of 10 actions, while the conditional target assumes 54 actions across the country's main economic sectors over the period 2010–2030.

- Energy (50%): Energy production and demand (i.e., households, transport, industry services);
- Agriculture (26%): Fermentation, cropping systems;
- Waste (18%): Solid waste and waste water management;
- Land use and forestry (5%): Afforestation, horticulture, forest fires;
- Industrial processes (1%): Cement industry, steel and metal manufacturing;

Particularly remarkable is the special focus on the energy sector, in which the country aims to achieve the greatest share of its emission reductions for both targets, namely through a) the extension of the national solar and wind programs in order to increase the installed capacity significantly to more than 50% by 2025, b) reducing energy consumption in buildings, transport and industry by 15% by 2030, and c) phasing out of fossil fuel subsidies.

All these actions are rooted in national priorities and policies making them part of a coherent sustainable development strategy. The most prominent policies are: the National Strategy for Sustainable Development (NSSD), the National Strategy to Combat Global Warming (NSGW), the Green Morocco Plan (GMP), the Green Investment Plan (GIP) and the Moroccan Solar Plan (MSP). Detailing what can be achieved with and without international support sends a clear signal to private investors and makes access to international climate finances (i.e. GCF) more likely.

Although the constraints stipulated by climate science leave no doubt that global GHG emissions must peak by 2020 and phase out in the long term in order to limit global warming to below 2°C, Morocco's INDC indicates a shallow but steady increase of absolute emissions until 2030. Yet, this could still be considered fair as developing countries with limited responsibility and capacities should be allowed to peak their emissions later than those countries with high responsibility for causing climate change and higher capacities to act. What is remarkable, however, is that though no emission peak year has been mentioned in the Moroccan INDC, the emission trend illustrated in both targets appears to sharply decline after 2029. This suggests an emission peak and a decoupling of Morocco's GHG emissions from economic growth and an effective transition towards a green economy at the end of the INDC period.

Is there room for improvement?

Even though there are many positive aspects to be found in Morocco's INDC that make it ambitious and fair, there are also areas for concern. Morocco formulates its mitigation targets in relation to a BAU scenario rather than to a specific base year which makes them appear more ambitious. However, this raises the question how the pledge would be adjusted if the emission development would differ from the projected BAU scenario – especially considering uncertainties about future economic and demographic growth. While this approach is in line with the target setting of other developing countries (e.g., Gabon), it is significantly different than the approach taken by the EU for example. Because global temperature rise ultimately depends on cumulative emissions, Morocco should not view its submitted INDC as the final word on what could be achieved, but rather as a first concrete step to operationalize a dynamic process to avoid dangerous climate change. In this regard and as a next step forward, the host of the COP 22 should build on its efforts and consider progressively increasing it targets throughout the target period and clarify the level and year at which the country expects its emissions to peak. The planned internatio-

nal INDC forum in Casablanca in October 2015 organized by the Moroccan Government and the EU to examine the global progress of the INDC submissions could provide an opportunity for such readjustments.

While shortcomings indicate room for improvement, some of the suggested measures to achieve the pledged targets should be treated cautiously or abandoned altogether. That is because, instead of moving towards a zero-carbon economy based on 100% renewable energy sources (which would be both feasible and economically viable due to the country's abundant sun and wind resources) some mitigation actions would definitely thwart Morocco's role as a regional climate and renewable energy leader. Although a well-regulated expansion of liquefied gas imports would help to diversify the country's energy mix, enable grid balancing when large quantities of fluctuating renewable energies are introduced, and reduce emissions per kWh by half when shifting from the average coal-fired power plant to a modern gas-fired plant, there is also reason for concern. On the one hand, if not considered a temporary bridging-technology allowing Morocco to leap-frog towards a low-carbon energy system, new investments into natural gas infrastructures could hinder the country's objective of freeing itself from its 95% energy import dependency and instead manifest a future lock-in on fossil fuels. On the other hand, caution is required that Morocco's gas expansion plan will not open doors to gas fracking companies for prospective drilling and the production of shale gas with devastating long-term consequences for human health, the environment and social peace. While an increased use of natural gas is critical but does have its reasons, the plan to build a nuclear power plant after 2030 can certainly not be regarded part of a sustainable energy future. Although not specifically named as mitigation action, nuclear energy should be abandoned altogether in the kingdom's energy planning.

Lastly, implementing the actions outlined to achieve the INDC target will ultimately affect societal actors. The meaningful inclusion of national civil society organizations in the country's climate and energy policy-making is therefore crucial. However, although Morocco said it undertook a broad stakeholder consultation process, only very few and rather opaquely selected civil society representatives were consulted during the preparation and review process of the submitted INDC ambition levels and their respective actions. The good news is that the early submission now allows the Moroccan government to establish a transparent and inclusive dialogue with civil society. This would ensure their active participation in the further development and implementation process of Morocco's climate policy and raise awareness on the actions needed to meet the submitted targets. Just a few weeks ago, at the end of May 2015, 18 Moroccan NGOs urged their government to establish a structured and open participation process to give civil society an active voice regarding decisions that affect their future (see: https://germanwatch.org/de/download/11488.pdf). The Moroccan „Competence Centre for Climate Change (4C)" and the newly established „Platform of the Ministry of the Environment" to discuss climate change should respond to this call.

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