BETTER POLICIES TO ACCELERATE THE CLEAN ENERGY TRANSITION

FOCUS ON COP27



RES4AFRICA FOUNDATION

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RENEWABLE ENERGY SOLUTIONS FOR THE MEDITERRANEAN

Policy Brief
Better Policies to Accelerate the Clean Energy Transition

Focus on COP27

About the project

This Policy Brief is part of the project "Better Policies to Accelerate the Clean Energy Transition" which aims at supporting countries in the Southern and Eastern Mediterranean region to accelerate the green energy transition by mapping existing legal and regulatory frameworks to identify barriers and provide policy recommendations.

The project is carried out by RES4Africa Foundation with the support of Enel Foundation as a knowledge partner.

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About this Brief

In the last years, climate change's effects are becoming more and more evident, and negative records in terms of extreme weather events, temperature increase, and water scarcity are being continuously broken. Despite the growing concern of the general public, the decision-makers, and the private sector, limited progress has been registered around the world regarding mitigation and adaptation measures.

In this context, expectations for COP27 were very high, because of at least two reasons: the Conference was considered the "Africa COP" and the "Implementation COP" for its informal focus on important topics related to Africa and the implementation of the decisions made at COP26 in Glasgow. Nevertheless, the Conference has been only a partial success. Many positive results have been achieved, such as the breakthrough on the loss and damage fund, along with some disappointments, for example the failure of the proposal on fossil fuels phase-out.

The objective of this Brief is to recap all the most important information about the situation in which COP27 took place, its outcomes, and what role the MED countries have played and are playing in terms of pledges and programs, with an eye to COP28.

The Brief is structured as follows:

I. The context: "too little, too slow"
II. What were the outcomes of COP27?
III. COP27 with a MED perspective
IV. Towards COP28

RES4Africa Foundation

Born in 2012, RES4Africa (Renewable Energy Solutions for Africa) is a Foundation that supports Africa's just energy transition to achieve the SDG7, ensuring access to affordable, reliable, sustainable, and modern resources energy for all. It functions as a bridge between Europe and Africa: gathering a network of members from all over the clean energy sector from both continents and high-level international partnerships, we ensure constant dialogue between the most relevant energy stakeholders willing to mobilise investments in clean energy technologies.

We envision the sustainable transformation of Africa's electricity systems to ensure reliable and affordable electricity access for all, enabling the continent to achieve its full, resilient, inclusive, and sustainable development.

We work towards creating favourable conditions for scaling up investments in clean energy technologies to accelerate Africa's just energy transition and transformation.

List of Acronyms

COP	Conference of Parties
IFIs	International Finance Institutions
MENA	Middle East and North Africa
NDCs	Nationally Determined Contributions
PPA	Power Purchase Agreement
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
UNEP	United Nations Environmental Programme

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1. The context: “too little, too slow”

At least since the historical outcomes of the 21st United Nations Climate Change Conference of the Parties (COP21) in Paris in 2015, the debate around mitigation and adaptation strategies to fight climate change has gained momentum and involved the entire international community. What appeared to be an issue for specialists and scholars a few decades back, has recently become a common topic in the public discourse and mainstream media. However, despite several positive signs, such as the wide adoption of measures intended to tackle climate change, two UNEP reports published in 2022 in preparation for COP27 described the global situation in terms of mitigation possibilities as a “closing window” and highlighted that most countries are doing “too little, too slow” in terms of adaptation.[1]

The limited progress registered has many causes, among which the most recent are the COVID-19 pandemic, global supply shortages, and the conflict in Ukraine have contributed to a crisis in energy security, causing a rise in the cost of living and inflation and shifting the focus towards immediate relief policies for citizens.

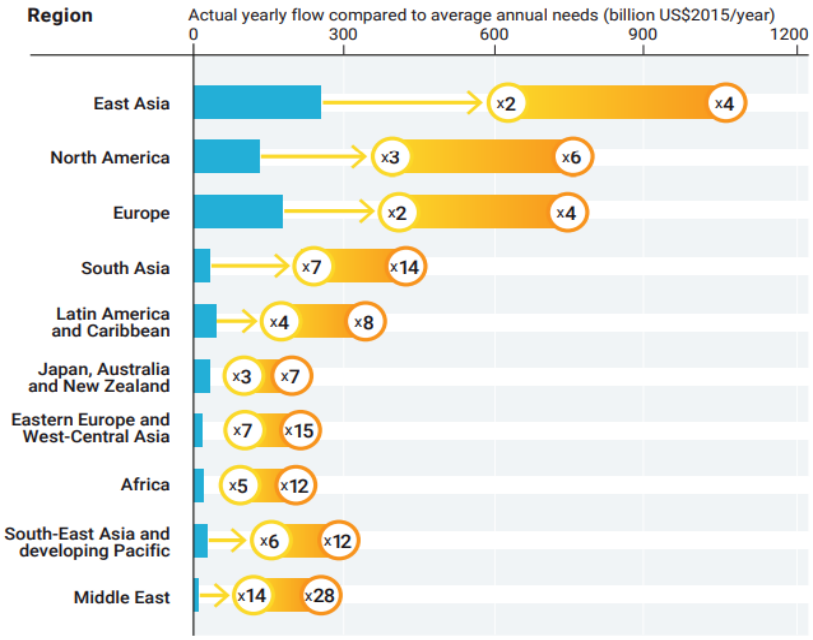
On the mitigation side, according to the new and updated nationally determined contributions (NDCs) submitted by countries since COP26, the projected global greenhouse gas emissions in 2030 will be reduced by only 0.5 gigatons of CO2 equivalent (GtCO2e) compared to the emissions projections based on the mitigation pledges made at COP26. The emissions gap in 2030 is 15 GtCO2e annually for a pathway that aims to keep global warming below 2°C and 23 GtCO2e for a pathway that aims to keep it below 1.5°C. Without any additional action, the policies that are currently in place are projected to result in global warming of 2.8°C over the 21st century.[2]

The amount of money invested to mitigate climate change increased in 2019-2020, reaching around $571 billion per year.[3] Nonetheless, the Intergovernmental Panel on Climate Change (IPCC) estimated that the amount of investment in mitigation should increase three to six times to effectively address the issue. The gap between current investments and the amount needed in developing countries is even larger (Figure 1).

Parallelly investments in fossil fuel assets must be progressively reduced because a significant portion of these assets may become stranded as low-carbon technologies continue to advance. In this regard, estimates suggest that the potential for stranded fossil fuel assets globally is at least $1 trillion, and could reach $4 trillion if more stringent policies to limit global warming to below 2°C are adopted.[4] These technological, policy societal and litigation barriers create a "transition risk" for investors.

[1] United Nations Environment Programme (2022a), Emissions Gap Report 2022: The Closing Window — Climate crisis calls for rapid transformation of societies. Nairobi. https://www.unep.org/emissions-gap-report-2022 and (2022b), Adaptation Gap Report 2022: Too Little, Too Slow – Climate adaptation failure puts world at risk. Nairobi. https://www.unep.org/adaptation-gap-report-2022.
[2] UNEP (2022a), p. 16.
[3] Buchner, B., Naran, B., Fernandes, P., Padmanabhi, R., Rosane, P., Solomon, M. et al. (2021). Global Landscape of Climate Finance 2021. San Francisco: Climate Policy Initiative. https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2021/
[4] UNEP (2022°), p.67.

Figure 1: Finance flows and mitigation investment needs per region (averaged until 2030)[5]



Concerning adaptation measures, more than 80% of the countries that are parties to the United Nations Framework Convention on Climate Change (UNFCCC) have developed plans, strategies, laws, and policies to address adaptation to climate change. More than 30% of all the UNFCCC signatories have included specific, time-bound targets as part of their national adaptation planning. Yet, many of these targets do not address the effectiveness of the actions as regards increasing resilience or reducing vulnerability to climate change. Countries are also working to improve the scientific basis for their plans and enhance their capacity and partnerships to effectively implement their plans, without much success. [6]

In 2020,[7] the amount of international funding for adaptation in developing countries reached $28.6 billion, an increase of 4% from the previous year.

On the other hand, even according to the own accounting of climate finance providers, the combined funding for adaptation and mitigation in 2020 fell at least $17 billion short of the $100 billion that was pledged to developing countries. Taking into account inflation, the estimated annual cost/need for adaptation is between $160 and $340 billion by 2030 and $315 and $565 billion by 2050. Based on this assessment, the current cost/need for adaptation is between five and ten times higher than the international funding for adaptation, and the gap between the two continues to grow.[8]

All that being said, it does not come as a surprise that many observers have been looking at COP27 as a key event in climate talks and the perfect occasion to discuss a possible way to accelerate efforts against climate change.

[5] UNEP (2022a), p. 27.
[6] UNEP (2022b), p. 10-12.
[7] The latest official figures refer to 2020 are taken from Organisation for Economic Co-operation and Development. Aggregate Trends of Climate Finance Provided and Mobilised by Developed Countries in 2016-2020: Insights from Disaggregated Analysis. Paris, France. https://doi.org/10.1787/d28f963c-en and Climate Change: OECD DAC External Development Finance Statistics https://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/climate-change.htm.
[8] Ibid., p. 21-23.

2. What were the outcomes of COP27?

COP27 was originally scheduled to take place in 2021 but was postponed to 2022, due to the COVID-19 pandemic, and held in Sharm El Sheikh, Egypt, in November. The conference was also dubbed the "Africa COP" and the "Implementation COP" because of its informal focus on important topics related to Africa and the implementation of the decisions made at COP26 in Glasgow.

According to several experts, despite the high expectations, COP27 failed to make significant progress in commitments to reduce global emissions and to advance on adaptation.[9] However, it did bring attention to crucial issues for developing economies, such as climate adaptation and loss and damage. This helped to restore partial trust between parties and, 40 hours beyond the scheduled end of the conference, the negotiating countries finally agreed on some points with mixed results. In the following paragraphs, the most relevant ones are presented.

Loss and Damage

Probably the most important result of the Conference was the establishment of a fund to provide financial assistance to countries experiencing significant damage due to climate change. This represents a major achievement in a topic that has been largely ignored in UN climate talks.[10] The loss and damage fund can help to provide support in coping with the consequences of extreme weather events and rebuilding the physical and social infrastructure. This tool is therefore fundamental and complementary to other instruments already in place.

The next steps in the development of the fund will be related to its implementation, with multiple challenges in terms of design and resource mobilization. For instance, discussions are being carried out on whether the allocation approach should consider channeling resources to vulnerable countries and/or vulnerable communities, with international and local NGOs and civil society organisations as intermediaries. In order to guide this debate, a Transitional Committee has been created and should be fully operational by COP28 in Dubai in 2023, together with the framework for the functioning of the Fund.

Regarding risk reduction, the UN announced a $3.1 billion plan to ensure access to early-warning systems within the next five years; whereas, the V20[11] and G7 jointly launched the Global Shield against Climate Risks for vulnerable countries. Governments advanced also on the topic of technical assistance to developing countries through the identification of the governance structure of the Santiago Network on Loss and Damage.

Mitigation

The COP27 final text recalled the Glasgow Climate Pact and urged countries to revisit and strengthen their targets to align with the Paris temperature goal both towards 2030 and towards just transitions to net-zero emissions by COP28.

[9] See for instance https://www.weforum.org/agenda/2022/11/what-happened-cop27-climate-change-what-is-next/ or https://www.nature.com/articles/d41586-022-03807-0.

[10] See https://www.wri.org/insights/cop27-key-outcomes-un-climate-talks-sharm-el-sheikh.

[11] The Vulnerable Twenty Group (V20) of Finance Ministers represents the most climate-vulnerable countries. For more information see https://www.v-20.org

Considering also informal negotiations, more countries have pledged to reduce emissions of short-lived climate pollutants. An additional 20 countries joined the Global Methane Pledge, which was announced at COP26 to reduce methane emissions by 30% from 2020 levels by 2030, bringing the total number of signatories to 150 (including 12 of the top 20 methane emitters).[12]

Adaptation

Given all the measures intended to increase countries' resiliency to the impacts of climate breakdown, countries were expected to make progress on defining the Global Goal on Adaptation. Notwithstanding, they have only established a framework to guide its formulation, which will be discussed and adopted at COP28. On the same topic, observers expected a pledge to double the resources dedicated to adaptation finance by 2025. Unfortunately, the parties did not agree on a possible roadmap for the implementation of this decision.

On the bright side, the Sharm El-Sheikh Adaptation Agenda has been launched, which consists of an action plan to accelerate transformative solutions through systems interventions and a set of adaptation outcome targets by 2030.

Energy transition

One of the most discussed topics at COP26 was the language used for the prospects of unabated coal power. Initially, countries proposed the wording "phasing out" but the debate ended with a compromise, calling for a "phase down" of coal plants. At COP27, instead, some countries – led by India – tried and failed to include a commitment to phase down all fossil fuels. Nevertheless, the final text that emerged from the conference contains a provision to phase out inefficient fossil fuel subsidies (without any additional details) and accelerate "low-emissions energy". This general wording could entail many different technologies, from RES to nuclear or, paradoxically, even natural gas.

Outside the negotiations, the concept of a Just Energy Transition Partnership gained attention, especially in the context of the G20 in Bali.

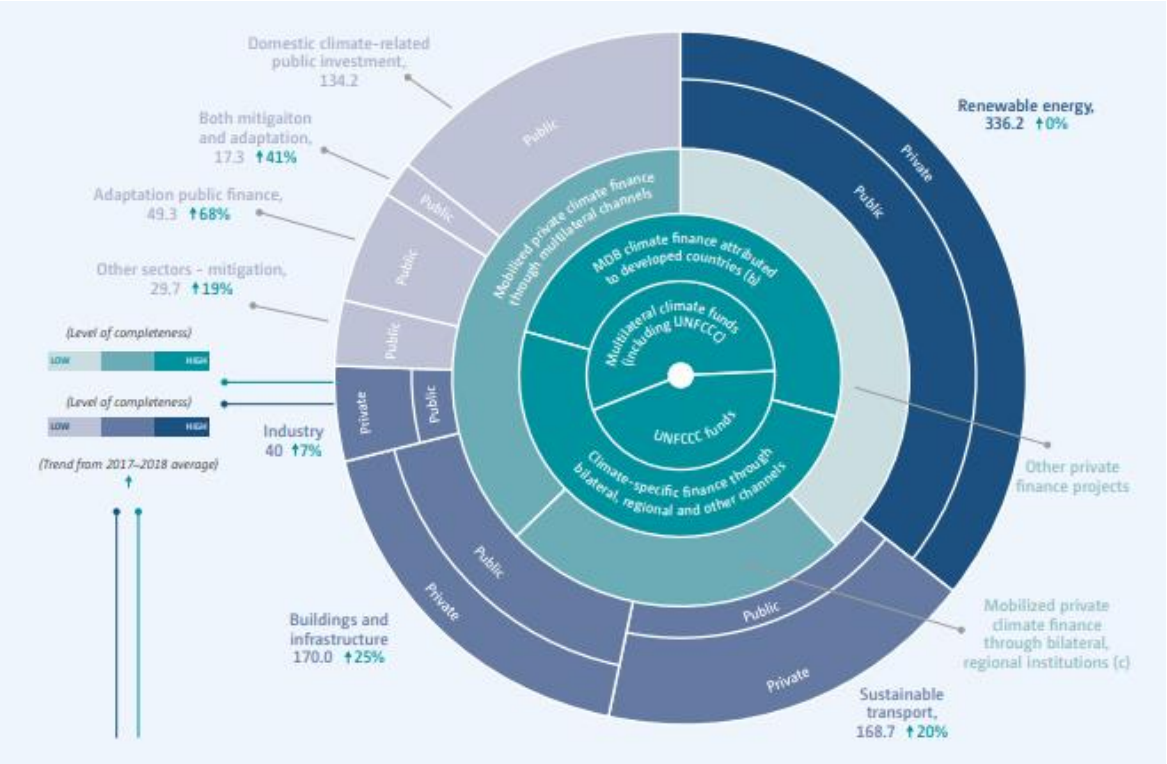
Finance

Finance, as one of the means of implementation of climate decisions, was one of the major focuses at COP27. Discussions moved from the fact that developed countries failed to comply with their commitment to providing $100 billion annually and that climate finance is partially increasing the debt burden in already debt-stressed countries. It is therefore evident the need to reform the broader public financial system, including multilateral development banks. In particular, an increasing amount of developed and developing countries are calling for urgent reform of the World Bank and other publicly funded finance institutions. The changes proposed included recapitalization to ease assistance for the developing world.

As for the climate finance goal post-2025, negotiations were expected to replace the inadequate politically set US$100 billion goal with a new needs-based and science-based much higher target (figure 2). Nonetheless, countries focused on procedural issues and pushed to the future important decisions around the amount, timeframe, sources, and accountability mechanisms that may be relevant.[13]

[12] See https://www.reuters.com/legal/legalindustry/cop-27-political-progress-transformative-climate-actions-remain-elusive-2022-12-20/.
[13] See https://us.boell.org/en/2022/12/13/loss-and-damage-fund-cop27-delivers-ray-sunshine-darkening-climate-finance-sky#5b.

Figure 2: Climate finance flows in 2019–2020 (Billions of United States dollars, annualized)[14]



Carbon markets

Due to the large amount and highly technical nature of the text, countries have been not able to address the operational details of carbon markets, such as double counting of emission reductions between countries and non-state actors.[15]

Yet, the UN Secretary-General's High-Level Expert Group on Net-Zero Emissions Commitments of Non-State Entities stated that high-quality carbon credits cannot substitute for emissions cuts needed for achieving targets along the net-zero pathway.

3. The MED perspective

According to a recent study, the MED represents one of the most vulnerable regions in the world to the detrimental effects of climate change.[16] The region is experiencing a temperature increase 20% faster than the global average, with devastating heatwaves, water shortages, loss of biodiversity, and risks to food production. What is more, with global warming of 4°C, average summer temperatures may increase by up to 8° C, water flow is projected to drop by 75%, and land aridity could increase by more than 60%.

Given these worrying figures, the MED countries have been already very active in climate talks. In 2016, Morocco, Algeria, Tunisia, Libya, and Egypt

[14] UNFCCC Standing Committee on Finance (2022), Fifth Biennial Assessment and Overview of Climate Finance Flows, p. 9.
[15] See https://www.wri.org/insights/cop27-key-outcomes-un-climate-talks-sharm-el-sheikh.
[16] Waha, K., et al. (2017), Climate change impacts in the Middle East and Northern Africa (MENA) region and their implications for vulnerable population groups. Regional Environmental Change, 17(6), 1623-1638.

signed the Paris Agreement.[17] In the same year, Morocco hosted COP22 in Marrakech. Except for Libya, all the countries submitted their first Nationally Determined Contributions (NDCs) between 2016 and 2017; Morocco and Tunisia submitted updated NDCs in 2021.

The location of COP27 in Egypt has therefore been seen as a possible opportunity for the Southern Mediterranean countries to grow their commitments to global climate action, although the over-dependence of the region upon fossil fuels presents several economic and political challenges.[18] In the next paragraphs, the old and new climate pledges and renewable energy targets are analyzed and summarized in Figures 3 and 4 at the end of the section.

Morocco

Morocco submitted the most ambitious and detailed NDC in the region. The new target consists of an emissions reduction of 18.3% below BAU by 2030 (compared to a 17% reduction in the previous NDC). The new target translates to an absolute emissions level lower than that of the previous target—from 145 MtCO2e in the 2016 submission to 115 MtCO2.[19]

It also mentions national strategies and plans, such as the national energy strategy, which aims to promote cooperation with other countries, reduce energy consumption by 20% in 2030, and reach a share of 52% of renewable energy in installed electric capacity by 2030 - of which 20% from solar, 20% from wind and 12% - from hydropower and recently updated with a target of 70% by 2040, and 80% by 2050. Almost half of Morocco's renewable energy targets are unconditional, whereas the rest depends on external financial and policy support. If all conditions were met, the country would triple the installed capacity of renewables during the decade. These objectives have been also reiterated in Morocco's "Stratégie Bas Carbone à Long Terme – Maroc 2050" (Long-Term Low Emission Development Strategy or LT-LEDS).[20]

Along with the confirmation of the above-mentioned targets, on the sidelines of COP27 a Memorandum of Understanding (MoU) on the Sustainable Electricity Trade Roadmap "SET Roadmap" was signed between Morocco and Germany, Spain, France, and Portugal. This MoU has the objective to foster the integration of the green electricity markets of the five countries, with the priority to develop cross-border green Corporate PPAs.

On the contrary, some recent measures, such as the commissioning of new coal power plants could complicate long-term decarbonisation and lead to either a lock-in of emissions or stranded assets. As a matter of fact, the Moroccan electricity mix is highly dependent on coal, which supplied over two-thirds of electricity demand in 2019. Moreover, Morocco does not have a net zero emissions target, which would be important to ensure an alignment of short and medium-term targets with the long-term overarching objective.

Algeria

As per its NDC, Algeria intends to reduce greenhouse gas emissions by 7% or 22% conditional on external support in terms of finance, technology development and transfer, and capacity building.

The Renewable Energy and Energy Efficiency Development Plan 2020-2030 and the NDC set a conditional target of 27% of electricity generation

[17] Libya is the only country that has yet to ratify the Paris Agreement. For this reason, the section will focus only on Morocco, Algeria, Tunisia, and Egypt.
[18] See https://www.ispionline.it/en/pubblicazione/cop-27-relaunching-climate-action-burning-mena-region-36679.
[19] For more information see https://climateactiontracker.org/climate-target-update-tracker/morocco/.
[20] IRENA (2023), Planning and prospects for renewable power: North Africa, International Renewable Energy Agency, Abu Dhabi.

from renewables by 2030 and a 9% reduction in energy consumption.[21] No major updates have been registered at the Conference on the country's pledges.

Tunisia

The updated version of the NDC of Tunisia, confirmed at COP27, raises the ambitions of mitigation of greenhouse gas emissions of the country from 41% initially to 45% by 2033 compared to its level of 2010, of which 28% is of unconditional nature. The implementation of the updated NDC will require the mobilization of significant financial resources, estimated at approximately $19.4 billion over the period 2021-2030, of which $14.4 billion for mitigation, $4.3 billion for adaptation, and $0.7 billion for capacity building actions.[22]

Recently, the country raised its target for renewables from 30 to 35% of power generation. In practical terms, Tunisia has committed to spending TND900m/year ($300m) to install more than 4 GW of new renewable capacity by 2030. It is worth mentioning also that the Tunisian Ministry of Energy has just launched a tender offering process to produce 1,700 MW of renewable power over the 2023-2025 period. The projects will require a total investment of TND5bn (US$1.6bn).

This is an important result considering that, in 2020, renewables accounted for less than 4% of Tunisia's power generation and 7% of its capacity mix.[23]

Egypt

Egypt submitted its updated NDC on 7 July 2022. The new document presents only emissions reductions to be achieved in separate sectors: electricity, transport, and oil & gas (respectively 33%, 7%, and 65%) which accounted for 42% of Egypt's total GHG emissions in 2015. Egypt launched also its 2050 National Climate Change Strategy in May 2022, without an emissions reduction target but with planned investments of US$211bn for mitigation and US$112bn for adaptation. Among the most important mitigation measures, the country aims to increase the share of renewables in its power mix to 42% by 2035 (but did not quantify objectives in terms of installed capacity).

During COP27, multiple mega projects and programmes for the country have been announced for renewable energy and green hydrogen. For instance, several development actors signed a partnership agreement with Egypt's Ministry of Electricity and Renewable Energy, Ministry of Environment, and Ministry of International Cooperation, to jointly support the country's programme on Nexus on Water, Food and Energy (NWFE). The NWFE program consists of three pillars—food, water, and energy—with a total investment of about $ 14.7 billion under Egypt's National Climate Change Strategy. The Energy Pillar is planned to mobilize at least $ 10 billion in investments with an expected new capacity of 10 GW of solar and wind energy by 2028. The initiative will also include the phase-out of 5 GW of fossil fuel capacity by 2025, leading to around 17 million tons of CO2e per year reduction in natural gas consumption and greenhouse gas emissions.[24]

[21] For more information see https://unfccc.int/sites/default/files/NDC/2022-06/Algeria%20-%20INDC%20%28English%20unofficial%20translation%29%20September%2003%2C2015.pdf.
[22] For more information see https://unfccc.int/sites/default/files/NDC/2022-08/CDN%20-%20updated%20executive%20summary.pdf.
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Figure 3: Renewable energy capacity expansion by 2030 according to NDCs in North Africa (MW)[25]

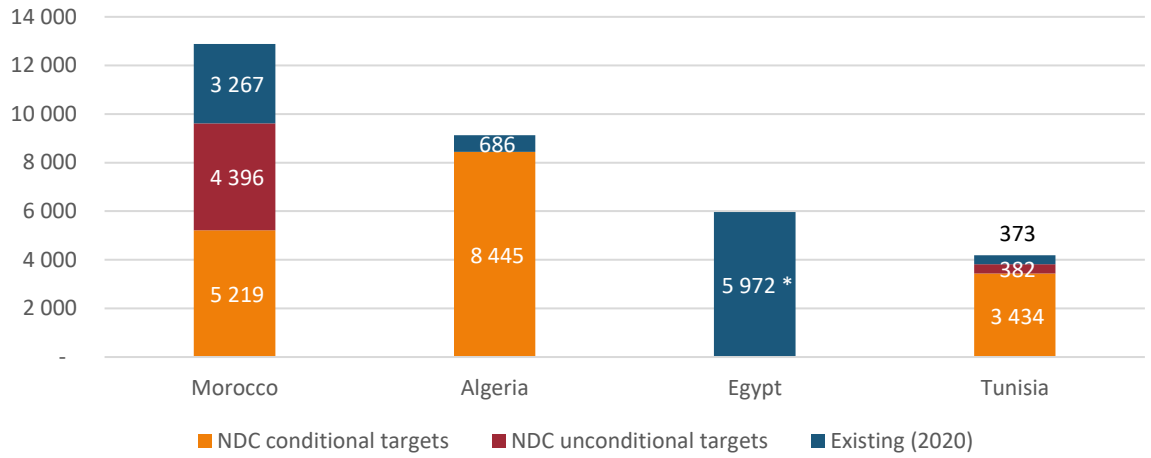
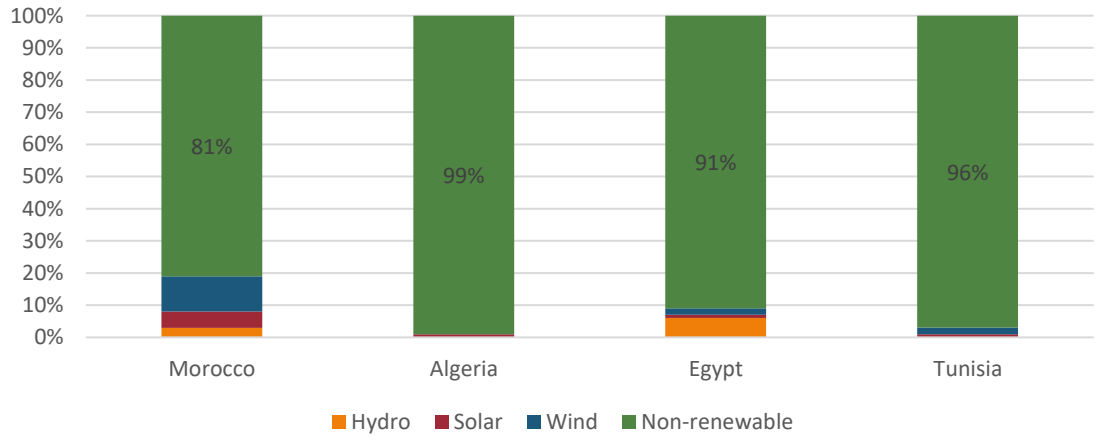


Figure 4: Share of energy sources in electricity generation in 2019 in North Africa[26]



4. Towards COP28

As already mentioned, most countries are achieving far below the targets set and several questions remained unanswered in COP27, so what to expect from COP28 in Abu Dhabi and the year to come?

First of all, climate talks and diplomacy will have to figure out how to design the Loss and Damage fund so that it can provide adequate and predictable support to affected countries. The details the Transitional Committee will have to discuss – such as the scope, the recipients, the governance, etc. – will determine the nature of the fund itself and its connections with major IFIs, wider financial flows, mechanisms, and innovative sources. These details will integrate COP28 talks,

[25] IRENA (2023), Planning and prospects for renewable power: North Africa, International Renewable Energy Agency, Abu Dhabi. P.21-22.
[26] Ibid. P.21-22.
*Egypt has not provided any quantified renewable energy targets in its updated NDCs but multiple projects have been announced.

where the parties are expected to adopt an agreement operationalizing the new fund.

Adaptation will be also at the center of the Conference. In particular, parties will need to agree on a Global Goal on Adaptation that is inclusive of both developed and developing country priorities and that fosters resilience, empowers communities, and recognizes the transboundary nature of adaptation.

In addition, the first Global Stocktake (GST) will take place during the Conference. The GST is a process that should occur every five years to assess progress in implementing the Paris Agreement. Discussions on how to address gaps in climate action took place at COP27, but it is not clear what the outcome of the GST will be. The final technical dialogue will be held in Bonn, Germany, followed by a political discussion at COP28 at the end of 2023.

Finally, all these actions will have to maintain the overarching objective of limiting the temperature increase to 1.5°C while addressing the unavoidable impact generated by climate change.

In this context, the MED countries should not only play a central role in climate talks, building on their commitments and harnessing their potential but also contribute to regional advancement in the fight against climate change in Africa and the Middle East.

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