

CLIMATE AMBITION BEYOND EMISSION NUMBERS

Taking stock of progress by looking inside countries and sectors

ITALY

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Disclaimer

The results presented in this report are outputs of the academic research conducted under the DDP BIICS project as per the contractual agreement. The academic work does not in any way represent our considered opinion for climate negotiations and also does not reflect the official policy or position of the Government of Italy.

How is this document relevant to the Global Stocktake?

This document is part of a collective report that assesses the evolution of climate ambition in 26 countries and 3 hard-to-abate sectors through a granular and context-specific analysis of trends and progress of national and sectoral transformations.¹ This approach allows identifying what hinders and spurs action in countries and sectors, and understanding the conditions that can support enhanced ambition, which could be political, social, economic, governance.

These insights are directly relevant to four overarching functions of the Global Stocktake in support of its desired outcome, i.e. "to inform Parties in updating and enhancing, in a nationally determined manner, their actions and support in accordance with the provisions of the Paris Agreement, as well as enhancing international cooperation for climate action" (Article 14.3 of the Paris Agreement):

- Create the conditions for an open and constructive conversation on global cooperation (on e.g., technology, trade, finance, etc.), based on an in-depth understanding of the international enablers of enhanced country ambition.
- Organize a process for knowledge sharing and collective learning, based on concrete examples of actions already in place or being discussed, including best practices.
- Create space for open dialogues across different stakeholders to support better coordination of actions, based on a detailed understanding of the levers to be activated to enhance ambition in national and sectoral transitions
- Facilitate ownership by decision-makers of the climate challenge and the risks and opportunities of the low-emission and resilient transition, based on context-specific and granular analysis of barriers and enablers.

More specifically, the collective report in general – and this document in particular – can contribute to address some of the key guiding questions for the Global Stocktake², notably:

- What actions have been taken to increase the ability to adapt to the adverse impacts of climate change and foster the climate resilience of people, livelihoods, and ecosystem? To what extent have national adaptation plans and related efforts contributed to these actions (Decision 19/CMA.1, paragraph 36(c))?
- How adequate and effective are current adaptation efforts and support provided for adaptation (Article 7.14 (c) Paris Agreement)?

¹ The full report « Climate ambition beyond emission numbers - Taking stock of progress by looking inside countries and sectors" can be found at: https://www.iddri.org/en/publications-and-events/report/climate-ambition-beyond-emission-numbers-taking-stock-progress

² Draft Guiding Questions for the Technical Assessment of GST1 (version 20th October 2021), available at: https://unfccc.int/sites/default/files/ resource/Draft%20GST1_TA%20Guiding%20Questions.pdf

- What are the barriers and challenges, including finance, technology development and transfer and capacity-building gaps, faced by developing countries?
- What is the collective progress made towards achieving the long-term vision on the importance of fully realizing technology development and transfer in order to improve resilience to climate change and to reduce greenhouse gas emissions referred in Article 10.1 of the Paris Agreement? What is the state of cooperative action on technology development and transfer?
- What progress been made on enhancing the capacity of developing country Parties to implement the Paris Agreement (Article 11.3 Paris Agreement)?
- To achieve the purpose and long-term goals of the Paris Agreement (mitigation, adaptation, and finance flows and means of implementation, as well as loss and damage, response measures), in the light of equity and the best available science, taking into account the contextual matters in the preambular paragraphs of the Paris Agreement:
- What are the good practices, barriers and challenges for enhanced action?
- What is needed to make finance flows consistent with a pathway towards low GHG emissions and climate-resilient development?
- What are the needs of developing countries related to the ambitious implementation of the Paris Agreement?
- What is needed to enhance national level action and support, as well as to enhance international cooperation for climate action, including in the short term?
- What is the collective progress made by non-Party stakeholders, including indigenous peoples and local communities, to achieve the purpose and long-term goals of the Paris Agreement, and what are the impacts, good practices, potential opportunities, barriers and challenges (Decision 19/CMA.1, paras 36(g) and 37(i))?

Foreword

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Country commitments as reflected in enhanced Nationally Determined Contributions submitted to the UNFCCC are insufficient to put the world on track to achieve the collective objective of the Paris Agreement to hold temperature increase below 2 °C or 1.5 °C above pre-industrial levels. Furthermore, concrete policies and actions adopted by countries on the ground are often not sufficient to achieve these NDC targets. These conclusions highlight the need to increase ambition and to provide convincing evidence to accelerate action in the immediate and short term to give effect to this ambition. Yet these assessments are not sufficient to effectively guide the progressive increase of ambition, as organized by the cyclical process of the Paris Agreement.

APPROACH

With this imperative in mind, this report adopts a different, complementary, perspective on climate ambition. It seeks to open the box of emission pathways, by considering multiple dimensions of the conditions that will make these pathways possible. These are technical, economic, political, social and governance considerations in need of attention to enable the required far-reaching and systemic transformation towards the long-term goal. On the one hand, the revision of emission targets needs to be directed by an assessment of how drivers of emissions should change to trigger transformation. On the other hand, converting emissions' targets into pertinent concrete implementation requires well-designed policy packages and investment plans that are also informed by a clear and detailed understanding of the starting point, priorities and interplays between the available levers of transformation.

This bottom-up assessment aims at contributing to the process of collective learning in support of the progressive increase of collective ambition, as inserted at the core of the Paris Agreement paradigm. Approaching climate ambition through the lens of underlying transformations calls for reflecting the heterogeneous nature and the multi-faceted aspects of transitions in different sectors and countries. This forces a move away from a purely global perspective and adopts a more granular approach based on country and individual sector perspectives. Thus, the report explores trends and progress on these transformations, as locally observed over the past years, notably since the Paris Agreement. This 'backwards looking' approach can help identify where developments are going in the right direction, where they should be accelerated and where major tensions remain that should be addressed as a priority to avoid undermining the transition. The picture of the state of the ambition discussion, firmly embedded in the country and sectoral realities, can provide means for reflection and action within the international climate community, particularly to inform focus areas for advancing the collective ambition agenda.

STRUCTURE OF THE REPORT

This country report describes the recent evolutions of domestic discourses on climate ambition, national climate policy, national governance and concrete policies and actions with a significant effect on GHG emissions. The chapter highlights a selection of striking and structurally important elements to advance the transformation towards carbon neutrality from an in-country perspective.

This report is part of a full series of 26 country chapters and three sectoral chapters. The full report includes a "summary for decision-makers" to present 10 cross-cutting messages emerging from the country and sector analysis, as a guide to the selection of priorities for collective action in the post-COP26 period.

You will find the full report at: <u>https://www.iddri.org/</u> <u>sites/default/files/PDF/Publications/Catalogue%20</u> <u>Iddri/Rapport/DDP_beyond%20emissions%20report.</u> <u>pdf</u>



This chapter has been written thanks to the support of the International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).

NATIONAL PROGRESS ON CLIMATE AMBITION SINCE THE PARIS AGREEMENT

DOMESTIC DISCOURSE

While the public perception on climate change has shifted and public mobilization has increased since the Paris Agreement, this hasn't been translated in higher political representation and in energy policy choices aligned to the Paris Agreement goals. Political parties and politicians are still trailing behind their European counterparts in understanding climate policy, including its consequences of success and failure, and in promoting strong Italian climate leadership. This may start changing under the leadership of Premier Mario Draghi, although questions remain. Since the Paris Agreement the perception of climate change as a threat but also an opportunity for increased prosperity has fundamentally shifted in Italy. Today, climate change is ranked on top of global threat for Italian as the 2020 PEW research shows. Also, research during Covid from More in Common in 2020 shows that Italians, who were among the first and most affected by the pandemic, are not only the most empathetic people in Europe but also the first in Europe to be in favor of a "Green New Deal" that allows government investment on a large scale to recover the Italian economy in a more environmentally friendly way. Italians are the first in Europe (with 81%) to think that the reduction of CO₂ emissions during the lockdown shows that it is possible to reduce our impact on the environment if we really want to. However, while 59% believe in the importance of taking the opportunity given by Covid to make important changes in the country, only one third of them think that these changes will actually take place. In fact, Italians are among the first in Europe to think that the government is not doing enough for the climate and to be concerned (75%) that the commitment to environmental protection and climate action slows down or stops after Covid. As far as Italy's international engagement is concerned, 62% of Italians believe that Covid has demonstrated the importance of working more closely with other countries and international institutions to address important challenges such as pandemics and climate change. These findings are confirmed by a new survey from YouGov for E3G: 85% of the Italian public support the Italian government providing poorer, developing countries with the financial and technological support to help them transition to clean energy, while just 10% oppose. Also, 62% say the Italian government should maintain its promises to developing countries on this matter, despite the context of the pandemic, while just 25% say circumstances have changed sufficiently that the government should go back on previous pledges. And finally, 62% think that "we will all suffer the consequences of climate change, so it's in the interests of Italy to help poorer countries make the transition to clean energy" while 32% think the government should put the needs of its own country and people first and leave poorer countries to fund their green transition themselves.

This rise of awareness since the Paris Agreement was led by four main factors: climate impacts are becoming ever more tangible; the Fridays for Future movement has been a new driving force of youth mobilisation since 2019 and has established itself as strong presence and voice in the public debate; the Italian media are increasing their coverage of climate-related news also thanks to increasing available climate risk data and assessment available for Italy (such as <u>the</u> <u>first comprehensive report on climate risk for Italy</u> in 2020); and the void left by the Trump Administration on climate increased the pressure for Italy to step on climate change and fill the void, especially during the 2017 G7 Presidency.

While the Italian Prime Minister Mario Draghi has for the first time introduced a much stronger narrative on climate change in the public debate, domestic energy policy choices do not reflect the new rhetoric. The biggest risk at the moment is for Italy to embark in a slow decarbonization journey whereby renewables energy, energy efficiency and electric mobility receive a lower ranking compared to extending the life of existing and gas assets and building new ones. The political debate and policy choices are dominated by an energy agenda and narrative controlled by the powerful Italian gas industry, which has unmatched access to politicians and media, as recent research shows. The state-controlled oil & gas company ENI as well as the Italian gas system operator SNAM – Europe's biggest – are aggressively advocating both in Rome and Brussels for a decarbonization strategy almost exclusively focused on bio-gas, bio-fuels, hydrogen, and CCS while actively blocking electrification efforts. On the other front, the state-controlled electricity utility ENEL is instead shifting its main focus on renewable deployment, smart grid and electric mobility although questions remain on ENEL's gas assets in Italy. The outcome is that the interests of a few big established gas companies are over-represented in politics and media (whose revenue increasingly depend from the royalty of gas companies), while the interests of citizens and the businesses of the zero-carbon economy - populated mostly by small and medium enterprises with a few exceptions do not find representation in politics, media and policy terms.

NATIONAL GOVERNANCE

Climate change has only recently taken a higher space in the national political agenda. The new government set up some institutional developments, but the lack of long-term strategic vision on climate actions is still significantly putting at risk the national transition.

The national governance structure of climate issues has changed recently. In February 2021, two new Ministries were created: the Ministry for the Ecological Transition (MITE) and the Ministry for Sustainable Infrastructures and Mobility (MIMS). In particular, the former Ministry for the Environment (MATTM) and the energy's directorates of the Ministry for the Economic Development (MISE) have been merged to create the new Ecological Transition Ministry. MITE has the remit on environmental, energy, and climate policies. While MITE and MIMS are responsible for most climate policies, other ministries contribute to the definition of sustainability-related policy actions. This merging mirrors similar dynamics that are taking place within other European governments (such as France), where an integrated policy approach is promoted. However, while in France the merging is leading towards a growing integration of environmental and energy policies with housing and transport policies, this has not happened in Italy where the delivery of an integrated vision is still hampered by traditional structures that tend to work in silos and avoid cooperation.

In parallel to Ministerial-level changes, Italy has created two new cross-ministerial committees to ensure coordination between Ministries: the Interministerial Committee for Sustainable Development (CIPESS) and the Interministerial Committee for the Ecological Transition (CITE). They are both chaired by the Prime Minister and have the mandate to coordinate ministerial action and approve national strategies regarding sustainable development and the ecological transition.

Setting up *ad hoc* supportive bodies is becoming a common feature for improving European and national policy-making. However, some essential elements must be preserved in order for these bodies to properly contribute to a better governance system. This notably involves their legal entity (i.e. being independent), have a clear mandate to provide policy advice and ensure policy consistency with climate objectives, and set up mechanisms to hold accountable other public institutions. These are all still missing from the Italian landscape at the moment. As other European examples show, an Italian Climate Law would help centralise all these elements and provide the policy and legal framework to design a governance system fit for purpose.

In 2019, Italy submitted its National Energy and Climate Plan (NECP) to the European Commission based on its 2017 National Energy Strategy. Overall, the European Commission judged the plan positively. The targets on GHG emissions reductions, energy subsidies, renewables, and energy efficiency were considered sufficient, and in general, the Commission recommendations were largely met. Nonetheless, the Commission criticised the over-reliance on new gas infrastructure that will not be needed, the lack of precise indications on the LULUCF sector, the absence of a long-term renovation strategy on energy efficiency, and the lack of research and innovation measures. While the Commission praised Italy for the good practices highlighted in the plan, it also expressed some concern about the difficulty of evaluating whether GHG emission reductions will be fully achieved. In line with the European requirements, public consultations and thematic groups have been organized to collect feedback and integrate new proposals in the final text. However, the Italian NECP will need now to be revised to integrate the adopted and updated 2030 and 2050 European emissions reduction and sectoral targets, the national breakdown of which is currently under discussion at the EU's level.

As far as the Italian Long-term Strategy is concerned, it was published in January 2021 but not yet submitted to the UNFCCC. It presents two scenarios for 2050, emphasising how, with the decarbonization scenario, Italy can reach climate neutrality by 2050. It shows the evolution of the energy system, and focuses on five sectors: industry, buildings (residential and tertiary), transport, agriculture, and LULUCF. It also analyses the developments regarding adaptation and the initiatives meant to align financial and economic flows to the Paris Agreement's goals. Even if the strategy has been only recently made public, the Italian government committed to review it before COP26 as part of the 2021 G7 Summit communique. However, due to the strict time constraints, revising the LTS before the COP26 may prove challenging. Indeed, the pledges made within the strategy will have to be reviewed considering the new European target of reducing GHG emissions in the EU by 55% by 2030 compared to 1990, and the reform of several pieces of the EU climate legislation that will be released in July as part of "Fit for 55" package.

While local and regional authorities are responsible for implementing the majority of climate legislation, at the moment their actions are not coordinated with national or international commitments. Many small municipalities often lack the necessary funds or technical capacity to implement ambitious environmental policies within their territories. Nonetheless, many Italian municipalities developed their climate plans and are very active in the Covenant of Mayors initiative.

ACTIONS AND POLICIES

National climate objectives are defined in the National Energy and Climate Plan (NECP). In the energy sector, with accounts for 23,7% of Italy's CO₂eq emissions, coal-fired power stations should be phased out by 2025 as per national policy (electricity generation from coal is just below 10%). The Government is planning to mostly replace them with gas-based generation with additional 3-6GW of new capacity according to different storage development assumptions). Beyond coal phase out, most relevant NECP climate objectives include the development of renewables at 32%, of which 55% in the electricity sector, 34% in the heating and 22% in the transport sector and a 43% efficiency improvement over primary energy as compared to reference scenario (PRIMES2007) for energy efficiency target resulting in an absolute primary energy demand from 142 Mtoe in 2020 to 125 Mtoe at 2030 (pre-Covid data).

There is not a proper implementation strategy to achieve the coal phase-out of the remaining 8.000MW (2018) coal power stations. The target is pursued by a combination of measures in the electricity sector, including the development of some 40-45 GW of new renewable, the installation of some 10GW of hydro pumped and electrochemical (grid connected and distributed) storages, the development of new grid infrastructure and the commissioning of 6.000MW of new gas capacity.

The development of new gas capacity is achieved with the introduction of an explicit capacity market mechanism which in late 2019, with two auctions with delivery at 2022 and 2023, has purchased new capacity for some 6.000MW. The new capacity will be remunerated for 15 years at the auction cap price of 75.000€/MW. In May 2021 the Italian TSO has released a consultation document to update the auction mechanism in order to have new capacity auctions for 2024 and 2025. The demand of capacity required by the TSO is not known, yet. The capacity market design has been widely criticized for discriminating in favour of new gas capacity and excluding demand-side management measures and storage capacity. Following the introduction of capacity market over 15.000 MW of new gas plants have filed an Environmental Impact Assessment application. A recent Decree 77/2021, connected with the National Recovery and Resilience Plan (NRRP) governance, introduces simplified procedure for gas infrastructure permitting, including EIA. Notwithstanding NECP targets, Italy is lagging behind the implementation of an effective renewable policy, because of its cumbersome permitting procedures (split between central and regional governments), market and regulatory barriers. Italy has developed most of its renewable capacity in the early 2010s thanks to feed-in like incentive schemes mostly for wind and PV technologies. Since 2012 the renewable programme has slowed down, given the high level of expenditures having reached 10bln €/year, and been suspended for grid PV. Decree 04/07/2019 establishes an auction mechanism for mature renewable technologies, mostly wind and PV, for a total capacity of 8000 MW. The auctioned capacity to be allocated in 2020-2021 corresponds to less than 20% of NECP target, still only a fraction of capacity is assigned during the auction sessions and there is no certainty about the future mechanism to promote renewable capacity. The cumbersome permitting procedures is currently limiting new renewable development to some 1.000MW per year as compared to some 5.000MW which would be needed to be on track with NECP target (55%). Assuming a new target of some 72% of renewable in electricity market by 2030, as publicly announced by Prime Minister Draghi and Minister of Ecologic Transition, the required annual growth of renewable is estimated at some 6-7.000MW/year, well above current trend. The National Energy Strategy 2017 and the NECP have also indicated the need to develop renewables in grid parity without public support, with the promotion of PPA (power purchase agreement) contracts, also as a public procurement practice. But to date, a regulatory framework for a successful PPA development is not in place.

The Decree 77/2021 intends to speed up permitting procedures for renewables.

Energy Efficiency (EE) policy is mainly structured in two main measures. Energy Efficiency Certificates (EEC) to support EE mainly in the industrial sector, and a tax rebate mechanism to incentive EE investments in private and public buildings.

Energy efficiency certificates mechanism was introduced in 2005 establishing an obligation for energy supplier to promote a minimum level of energy efficiency measures on final uses. The obligation is increased on an annual basis up to 2024. Energy efficiency in the industrial sector is also promoted with a credit incentive within the '*industria 4.0*' programme supporting innovation for the productive sector, including SME.

Private and public building energy efficiency is promoted by a tax rebate mechanism. The mechanism consists in paying back, in 10 years, a percentage of energy efficiency refurbishment costs. The percentage, originally set at 55%, has been increased at 65% and, as a Covid-19 recovery measure, increased to 110% with Decree 34/2020. Individuals and social housing agencies may access the incentive. The tax credit can be transferred to third parties.

The incentive is assured providing minimum technical requirements, including the improvement of at least two energy classes, are met. The mechanism is criticized for its uncertainty over time - the mechanism has to be confirmed annually in budget law - and for its effectiveness with reference to energy efficiency quantitative targets, considering the high incentive cost involved (110% for an improvement of two energy classes only). In addition the mechanism still allows fossil fuel technologies, such as gas boiler, in the technologies accessing the incentive.

For transport, NECP priority is given to policies to contain the need for mobility and the increase of collective mobility, in particular by rail, including

the shifting of freight transport from road to rail. There is a target for electric vehicle, currently set at 6 million vehicles sales by 2030 but there is not a proper roll-out strategy for electric mobility in place, nor for the development of the recharging infrastructure. Periodically the Government approves an incentive scheme to purchase new vehicles, but the largest amount of incentive is directed to 60-135 gCO₂/km vehicles. Italy is among EU countries with highest percentage of owned car over population (over 600/1000 resident) and the climate target can uniquely be met with a coordinated strategy switching mobility mode, promoting public transport, increasing shared and slow mobility and renewing vehicle fleet. This needs a climate governance between the central Government and the regional/local one which is still not in place. Municipalities are asked to produce local mobility plans, but it is not clear the connection between those plans and national transport policy. Battery storage strategy is under discussion at national level. The Italian National Recovery and Resilience Plan (NRRP) is the largest in Europe with a budget of 261 billion €. The plan is composed by 191,1 billion € from the Recovery and Resilience Facility, 13,5 billion € from React- EU and additional 30,5 billion € from a nationally financed Complementary fund and 26 billion € of additional national resources for high speed train infrastructures to be spend within 2032. The Plan and its resources have been mainly directed to socio-economic needs and weaknesses, already present in pre-Covid time and now exacerbated by the pandemic. The Italian NRRP consists in six major missions and three main horizontal dimensions: climate change, digital impact, and national cohesion. The Italian NRRP declares 40% expenditure in climate change, 27% in digital impact and 40% in national cohesion with investments directed to southern regions. The Plan does not contain measures or projects which can be considered harmful for the environment.

The climate budget covers two missions:

 Green revolution and ecological transition, for a total of 68,7 billion €, including projects in agriculture and circular economy, renewable energy and electricity infrastructure, hydrogen development, energy efficiency, resources for local transport and biodiversity and adaptation. • Infrastructures for a sustainable mobility, for a total of 31,4 billion €, focusing on railway infrastructure development for the completion of a high speed train network and its connection with the regional network.

Although the plan is able to reach the required 37% of climate expenditure according to EU regulation, it is not convincing in its climate impact. The sum of NRRP climate projects does not make an effective climate strategy, this is to say the money are spent in climate aligned projects but not in transformative sectors able to contribute to the long term decarbonization target. The impact in terms of CO₂ of financed projects is only reported in a few sections. The total impacts quantified by the Plan show a contribution to just 3% of the 2030 goals, or 5.6 Mt CO₂ eq.

Other measures, such as supporting local transport, the possibility of transitioning the steel industry towards sustainability and making buildings energy-efficient will lead to further reductions. However, the lack of a quantitative assessment of the measures means it is impossible to measure their efficacy, or to weigh up alternative options which may be more cost-effective or have a greater impact. The very fact that the measures are not quantified shows that decarbonization is not being considered the motivation for spending. In addition, as assessed by the green recovery tracker¹, the Plan is weak in supporting transformative projects in the three key climate flagships: renewable, energy efficiency and infrastructures for electric mobility.

1 <u>https://www.greenrecoverytracker.org/</u>



The DDP is an initiative of the Institute for Sustainable Development and International Relations (IDDRI). It aims to demonstrate how countries can transform their economies by 2050 to achieve global net zero emissions and national development priorities, consistently with the Paris Agreement.. The DDP initiative is a collaboration of leading research teams currently covering 36 countries. It originated as the Deep Decarbonization Pathways Project (DDPP), which analysed the deep decarbonization of energy systems in 16 countries prior to COP21 (deepdecarbonization.org). Analyses are carried out at the national scale, by national research teams. These analyses adopt a long-term time horizon to 2050 to reveal the necessary short-term conditions and actions to reach carbon neutrality in national contexts. They help governments and non-state actors make choices and contribute to in-country expertise and international scientific knowledge. The aim is to help governments and non-state actors make choices that put economies and societies on track to reach a carbon neutral world by the second half of the century. Finally, national research teams openly share their methods, modelling tools, data and the results of their analyses to share knowledge between partners in a very collaborative manner and to facilitate engagement with sectoral experts and decision-makers.

IDDRI

The Institute for Sustainable Development and International Relations (IDDRI) is an independent, not-for-profit policy research institute based in Paris. Its objective is to identify the conditions and propose tools to put sustainable development at the heart of international relations and public and private policies. IDDRI is also a multi-stakeholder dialogue platform and supports stakeholders in global governance debates on the major issues of common interest, such as actions to mitigate climate change, protect biodiversity, strengthen food security, and to manage urbanisation. The institute also participates in work to build development trajectories that are compatible with national priorities and the sustainable development goals.

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