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Taking stock of EU climate governance: key challenges

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Abstract

EU climate governance has made significant progress over the past years, including an acceleration under the European Commission's European Green Deal launched in 2019. Nevertheless, the European Union still has a long way to go to realise the climate and sustainability transition, which will require perseverance and a steadily evolving policy framework for more than a generation. I here identify and discuss seven momentous challenges for contemporary EU policy on the way to the climate and sustainability transition. They indicate the depth of change still required and the long-term nature of the governance task.

Introduction

Is the European Union finally moving to effective climate protection? Based on the European Green Deal (EGD) launched by the European Commission in December 2019, the European Council of heads of state and government has agreed to upgrade the greenhouse gas (GHG) emission target for 2030 from 40% to 55% and to aim for full climate neutrality by 2050.[1] The funding for the recovery from the Covid-19 crisis promises to mobilise much of the sizeable investment this climate transition requires. EU GHG emissions have declined by about 24% below 1990 levels, with reductions expected to reach around 30% in 2020 (due to the Covid-19 crisis).[2] The European Commission is scheduled to table proposals for a package of implementing measures toward the 55% target in mid-2021. All these are positive signs that the EU is getting on the right track. However, I argue here that the EU still has a long way to go and the climate, energy and sustainability transition remains a task for more than a generation. There is no room for complacency but a need to maintain and intensify efforts to push the boundaries of the feasible. In the following, I identify seven momentous challenges on the agenda of contemporary EU climate policy to this end.

Challenge1: Implementation of the new climate targets

The effective implementation of the 55% emission reduction target for 2030 and moving to climate neutrality by 2050 (at the latest) is still lying ahead and will require making important choices. The Climate Law agreed in April 2021 not only enshrines the new targets in EU law but also develops the future governance

system, including a new expert council advising on the future emission trajectory towards climate neutrality in 2050. Under the EGD, the Commission is furthermore scheduled to present proposals for updating and upgrading key legislative instruments that form part of the dense and rich mix of EU climate and energy policies formed over the past decades, including market-based, regulatory and procedural elements. In 2021, key legislative proposals and initiatives expected include[3]:

- A strengthening of the Emissions Trading System (ETS) (including a possible extension to new sectors such as buildings and transport) and of member states' emission targets under the Effort-Sharing Regulation for sectors other than power and industry primarily regulated under the ETS (buildings, transport, agriculture, etc.);
- A reinforcement of the Renewable Energy, Energy Efficiency and Energy Performance of Buildings Directives, including significantly upgraded goals for renewable energy and energy efficiency for 2030;
- A significant upgrading of the standards of CO2 emissions of cars, vans and heavy-duty vehicles towards the fossil-fuel phase out required;
- The introduction of a "carbon border adjustment mechanism" to price the GHG emissions enshrined in imports so as to ensure progress within the EU is not undercut by imports of high-carbon products not subject to similar restrictions;
- A strengthening of the rules governing forest management to preserve and enhance forests' capacity to sequester and store carbon; and
- An overhaul of EU state aid rules (including for support for renewable energy) to effectively advance the climate transition.

A number of other ongoing policy initiatives and developments also require follow-up, including the implementation of the EU's strategies for the industry sector, for (renewable) hydrogen, batteries, sustainable finance, a greening of monetary policy (including by the European Central Bank), and carbon capture and storage/utilisation (CCS/CCU).

While in need of further development (see below), this is already a long list. There can be little doubt that well organised political and economic interests will continue to resist the transition. The devil is frequently in the details and status-quo interests will try to slow down change and unpick the list, not least in sectors where solutions do not yet have strong advocates (transport, buildings, energy-intensive industries, …). A major and persistent effort will be required to ensure maximum speed in putting the climate transition on track across all sectors and policies. After all, the delay in upgrading climate action over the past decades means that even the 55% target by 2030 falls somewhat short of what the fair share of the EU to limiting global temperature increase to no more than 1.5/2°C in line with the Paris Agreement would be.[4]

Challenge 2: Creating a future-proof framework for climate policymaking

The climate and sustainability transition is a long-term undertaking that requires structures for long-term policymaking. It is important to fully realise that the impending reforms indicated above will by no means be the last ones. To start with, the path towards climate neutrality (no later than in 2050) necessitates determining how the trajectory can and should be shaped beyond 2030 (also to be communicated as successive 'Nationally Determined Contributions' under the Paris Agreement). Furthermore, new scientific, technological and socio-economic developments will create new policy demands and open up new opportunities. Renewable energy and the electrification of transport, which have already reshaped the policy agenda, continue to create new policy demands (e.g., energy efficiency requirements for electric cars).

In addition, climate neutrality in 2050 is not the end of the road towards climate stabilisation. How and how far we can move towards net negative emissions afterwards, through enhancing nature-based sinks such as forests or in agriculture, and possibly developing negative emission technologies (such as CCS/CCU), will require increasing attention well before 2050 (including through advancing the 'circular economy'). The global nature of the climate problem will also require that the EU puts additional focus on how climate neutrality can best be exported to less resourceful countries by assisting them in adapting solutions to their conditions. Under the circumstances, what is required is a governance framework that is capable of identifying and flexibly responding to new developments.

Two particular demands for the development of a future-proof climate policymaking framework arise from the dynamic long-term nature and depth of the task. First, a clear and stable framework for decision-making is required to provide for the needed upward flexibility and proactiveness while ensuring stability and predictability. The new expert council under the EU Climate Law agreed in April 2021 may form an important part of such a framework, which may need to be further complemented so as to enact a firm step-by-step approach to policy development that fosters learning and feedback loops.

Second, and relatedly, the depth of societal change required by the climate and sustainability transition speaks for a strong anchoring in society. Building on existing and emerging elements such as energy communities and the European Commission's Climate Pact[5], a further strengthening of participatory opportunities and elements of deliberative democracy at regional, national and EU levels can support a proper democratic embedding and foster societal ownership of the transition, while also contributing to the strengthening of the EU's general input legitimacy. The convening of citizen assemblies on climate change in some member states provides an interesting element to be explored further.[6]

> **Even with broadening consensus on the decarbonisation goal, climate politics is not fading but at best shape-shifting: from discussions on the"whether" towards crucial debates on the "how" of the climate transition.**

Finally, spurring technological innovation remains a key cornerstone of any successful governance of the climate and sustainability transition. To be sure, technological solutions exist in many areas allowing us to push ahead, including in the production of renewable electricity and heat, electrification of transport, construction and heating of buildings, and more. At the same time, enormous scope and opportunities for technological innovation remain, ranging from zero-emission technologies in energy-intensive industries (steel, chemicals, cement, etc.), to power storage and grid management to the production of sustainable biofuels. Incentivising and promoting such innovation will have to remain a key objective of public policy to address climate change, keeping in view the full ladder of technology development from the initial invention to market introduction. This will require both: (1) strengthened efforts at fostering innovation such as in the context of the EU's research and innovation "missions"[7] and (2) the broader policy framework providing a clear and stable "direction of travel" toward decarbonisation as an essential driver of research and innovation.

Challenge 3: Moving beyond the primacy of mainstream economics

Avoiding excessive economic costs is an important consideration in developing climate policy, but mainstream economics is notorious for overestimating the costs and underestimating the benefits of stringent climate policy. Why is that? First of all, innovation is notoriously difficult to predict so that mainstream economic modelling tends to underestimate related costs savings. For example, cost reductions achieved within a couple of years allowed the EU to increase its renewable-energy target for 2030 from 27% (proposed in 2016) to 32% in 2018 at no additional cost.[8] Furthermore, mainstream economics struggles to properly reflect that, in a world transitioning towards climate neutrality far beyond Europe, many short-term economic costs may qualify as a long-term investment in future economic benefits. For example, more stringent, "costly" regulation of CO2 emissions of cars in the EU 15

years ago could arguably have helped EU car manufacturers understand much earlier (and at a time when high profits provided room for investments) that they need to catch up with Tesla and prepare for markets demanding carbon-free solutions.

Also, modelling of the long-term economic costs of climate change itself has to be taken with a pinch of salt. First of all, the calculation of these costs depends heavily on assumptions about (high) discount rates. As a result, future damage may appear as low-cost at present and current investments appear as expensive. Perhaps more importantly, economic costs are not the only consideration in deciding on what action to take. As debates on "loss and damage" have brought to the fore,[9] climate change entails significant impacts that cannot be easily adapted to and for which it is difficult – if not cynical – to put a price. Think of the disappearance of small island states, deaths caused by climate change, or climate change as a threat multiplier to international security. Impacts extend to "priceless" values such as identity, culture, social stability and the protection of fundamental human rights. The climate action imperative that arises is one of responsibility rather than cost minimisation.

Policymaking should thus go beyond no- and low-cost options. To be sure, calculations of economic costs rightly are an important consideration (and figure prominently in impact assessments by the European Commission). But they are only one consideration in a broader debate. Extra efforts are required in order for the EU to prepare itself for global decarbonisation and make its fair contribution to limiting global temperature increase to 1.5/2°C so as to avoid the worst impacts of climate change.

Related to the excessive focus on economic cost minimisation is the excessive focus on carbon pricing as the silver-bullet policy instrument. Carbon pricing – with the Emission Trading System as the instrument of choice in the EU[10] – is generally the key focus of economists. However, barriers to decarbonisation extend far beyond insufficient price signals. They prominently include the landlord-tenant problem in the buildings sector; the lack of zero/low-carbon technologies in important parts of industry, international transport, agriculture; the lack of price elasticity of demand, high discount rates of investors, etc.[11] Carbon pricing is an important element, but effective climate action by the EU (and others) requires the right mix of policies to successfully address the barriers of different socio-technical sectoral systems – including market-based, regulatory, informational and procedural components, as appropriate.

Challenge 4: Ensuring a socially "just" transition

With equity forming a key dimension of sustainability, the socially just transition has increasingly moved into the political limelight, but remains to be developed more fully. Since the "yellow vests" and the "climate justice" movement, the importance of addressing the distributive implications of both climate change and climate policies has become increasingly acknowledged (on the international dimension, see below). Different countries, regions and sections of society are affected to varying degrees – there are (relative) winners and losers. Important progress has been made. In particular, a Just Transition Mechanism "to leave no one behind" has been established under the EGD, including a Just Transition Fund that has been endowed with EUR 17.5 billion. Ensuring these funds are properly spent in support of disadvantaged regions will be an important point of attention for the coming years.

Yet, the EU's current means for facilitating a just transition remain incomplete. First of all, in focusing on high-carbon regions/sectors, they do not systematically address the issue of a fair distribution of the *benefits* of this transition (e.g., investments in rising sectors such as battery and hydrogen development and production). The discussions surrounding the review of member states' national energy and climate plans under the Governance Regulation and spending plans under the recovery fund and EU structural funds provide an important opening for advancing this agenda.

But beyond regional and sectoral disparities, the just transition concerns the even broader *distributive* consequences of climate policy that may reinforce pre-existing socio-economic and societal cleavages (e.g., between poor and rich, highly and low skilled, etc.). While related action may be considered to fall into the remit of individual member

states, there are good reasons for coordination at the European level to prevent a backlash against EU climate policy and European integration more broadly. It may also be useful to prevent that the need for a socially just transition is misused to compensate for misguided investments into fossil industries in defiance of the polluter pays principle.

Beyond these aspects of distributive justice, the potential for enhancing *procedural* climate justice remains to be more fully exploited. This reinforces the rationale for advancing opportunities for public participation and deliberative democracy at national and EU level in the development of policies steering the climate and sustainability transition, as mentioned above. Ensuring adequate public participation in the preparation and review of the aforementioned plans, a systematic use of citizens' assemblies and better access to legal review mechanisms deserve to be developed along any other novel ideas. This could serve to give all relevant sections of society a voice and to recognise those particularly challenged and disadvantaged by the transition.

Challenge 5: Mainstreaming climate objectives – climate policy integration

Although significant progress in integrating climate policy objectives into other policy fields (notably energy policy) has been made, fully realising climate policy integration remains a major challenge. The EGD has already broadened the agenda to include trade policy, industrial policy, agricultural policy, the aforementioned social dimension, and more. Above all, the EGD proposes a "green oath" implying that no EU policies or actions should do harm, but all should contribute their share to the transition. However, this green oath still needs to be filled with life across the breadth of EU decision-making. In addition to external policy discussed further below, three issues deserve particular highlighting.

First, the EGD agenda for climate policy integration needs firm and full follow-up. It is one thing for the Commission to envisage that all other policies should synergise with the climate agenda. It is an entirely different thing to actually achieve this. The EGD hence sets the stage for a great number of debates on concrete steps for reforming – and in some cases, revolutionising – other sectoral policies. Conflicts with and resistance by status quo interests are pre-programmed (as witnessed in discussions on reforming the Common Agricultural Policy).[12]

Second, the need for a stronger consideration of other environmental objectives and requirements in the climate transition has been growing. The climate transition urgently needs to be fully aligned with the imperative of protecting biological diversity – that is in danger of being crowded out by the climate issue. Also, the expansion of renewable energy cannot mean that nature protection gets downgraded – but reinforces the need to strengthen energy efficiency policies and minimise the impact of renewables on the natural environment. While the EGD rightly acknowledges the need for a broader sustainability transition beyond climate and energy, progress has fallen short so far. It requires a systematic consideration of a set of key environmental objectives in EU decision-making.

Third, the need for adaptation to the impacts of climate change further broadens the climate agenda. Adaptation is no replacement or alternative to mitigating emissions, but resolute emission mitigation enables adaptation. Otherwise, there is a real danger that climate change impacts, including irreparable loss and damage (of land, species, ecosystems, etc.), spiral out of control. Having said that, adaptation is an inescapable necessity resulting from the unfolding impacts of climate change. As a result, EU adaptation policy is in need of further development over the coming years and decades.[13]

Challenge 6: Avoiding common fallacies/traps

There is a sheerly unlimited number of arguments brought into the discussion to distract from the need and feasibility of strong and growing climate action in the EU and beyond. This short essay – beyond the discussion of mainstream economics and of adaptation (see above) – takes issue with two prominent fallacies/traps.

First, the EU is neither the lonely and idealistic frontrunner of global climate protection, nor is its contribution too small to be relevant. About two-thirds of the world economy have, like the EU, committed

to achieving climate or carbon neutrality by 2050 or 2060, including China, the US, Japan, Canada, South Korea, South Africa and many others. Many countries have also either announced or are preparing upgrades of their ambition for 2030.[14] The race to zero-carbon solutions is in full motion. The EU accounts for about 10% of global emissions so that its contribution is significant – and as argued above, the decarbonisation of its economy is both economically essential and morally imperative.

Second, climate geoengineering similarly is a false solution. Solar radiation management technologies entail a far-reaching intervention in complex ecosystems with likely considerable negative consequences. These negative consequences are likely to hit different countries and regions to varying degrees, with considerable potential for feeding international conflict. They require a continuation and intensification of the intervention over long timescales (to counterbalance high and even rising GHG concentrations in the atmosphere). And they do not even address all important climate change impacts, such as the acidification of the world's oceans. Therefore, there is a need for the EU to ensure that geoengineering adventures are prevented and research on relevant technologies can only proceed under firm international oversight.[15]

Challenge 7: Advancing the EU's international leadership

Over the past decade, the EU has successfully adapted its international climate leadership to evolving geopolitical realities, most notably a more multipolar world and the limits of EU influence in it. In response, the EU has developed a novel mediating and coalition-building leadership and diversified its focus beyond multilateral UN climate politics towards other fora and strengthened bilateral climate diplomacy. While this reorientation has had positive results (e.g., a significant impact of the EU on the Paris Agreement), exploiting the room for further improvement remains imperative given the enormous international challenges.

To start with, climate considerations need to be much further integrated into external policies. The full appreciation of the imperative of the climate transition is still at an early stage. The EGD rightly envisages enhanced external engagement towards promoting and advancing the transition internationally. Beyond that, however, there is a need to comprehensively review and revise the external relations of the EU and its member states beyond the core area of climate diplomacy – covering the wide array of bilateral, regional, multilateral and transnational engagement in all policy fields, including trade and investment, and general foreign affairs. There can be little doubt, for example, that relations with fossil fuel exporters – much beyond the usual suspects of Russia, Norway and the Middle East – will undergo profound change. The suggested comprehensive review should enable the EU to proactively and fruitfully reshape and advance these and other external relations towards the climate and sustainability transition.

Furthermore, the EU and its member states face the challenge of developing a high-politics "grand climate strategy". This demand emerges from the rise of climate change to the highest levels of politics, including in China and the US. With climate and energy constituting areas of shared EU competence, this raises important issues of coordination across EU institutions and EU member states that may require reinforcing internal mechanisms for high-level coordination (e.g., through the installation of a council of climate ambassadors or czars).

As a caveat, calling for the development of an EU grand climate strategy does not mean calling for the EU to focus on its narrow self-interest. The climate challenge requires global action and an internationally just transition "leaving no one behind". Broad coalition building remains a valid cornerstone of the EU's international climate leadership. Integrating climate into grand strategy can and should also mean pursuing "enlightened self-interest" that accepts international responsibility and fully engages in assistance to others.

Concluding remark

As the EU is embarking on the transition to climate neutrality under the European Green Deal, one may be tempted to consider that the end of climate politics is approaching: Agreement on the need for, and the opportunities arising from, the transition seems to be growing. However, as I have argued here, even

with consensus on the decarbonisation goal broadening, climate politics is not fading but at best shape-shifting: away from discussions about the need for the climate transition towards crucial and tense debates on the most effective, efficient and equitable ways of advancing the transition at home and abroad.

Endnotes

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