SWP Comment
NO. 33 AUGUST 2024

Third Generation of Nationally Determined Contributions

The Heart of the Paris Agreement Is at Stake

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The signatories of the Paris Agreement are required to submit new nationally determined contributions (NDCs) by 10 February 2025, laying out targets for 2035. These third generation NDCs – "NDCs 3.0" – are supposed to serve as comprehensive investment and transformation plans and incorporate the findings of the Global Stocktake (GST). The GST was agreed at COP 28 in Dubai to keep the 1.5 degree target within reach. However, hardened fronts between developing and developed countries obstruct the establishment of a progressive coalition to develop ambitious NDCs. Germany and the European Union could inject new life into the NDC 3.0 process by stepping up technical support, promoting diplomatic initiatives and embracing Brazil as a key actor.

The last round of NDCs were submitted in 2020 and 2021 amidst the global Covid-19 pandemic. They were characterised by large ambition and implementation gaps, as the parties acknowledged in 2023 in the Global Stocktake. The targets announced in the current NDCs would only limit the global temperature increase to 2.4 to 2.6 degrees. They would only reduce greenhouse gas emissions by 5.3 percent by 2030 (compared to 2019). According to the IPCC a reduction by 43 percent is needed. Without the conditional elements of the NDCs — measures implemented by developing countries in return for external financing — emissions would actually increase by 1.4 percent. And that is before the implementation gap: the measures actually implemented by the parties are not enough to achieve the targets for 2030 laid out in their NDCs.

NDCs in the Paris Agreement

The NDCs are the beating heart of the Paris Agreement. They replace the binding greenhouse gas reduction targets of the Kyoto Protocol, which were applicable only to developed countries (so-called Annex I parties) but not emerging economies and developing countries (non-Annex I parties). This led to persistent distributional conflicts. Certain states — including the United States and Canada — refused to accept restrictions from which other major emitters like China and India were exempt.

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The Paris Agreement replaced this top-down approach with a bottom-up process where countries largely define the size and nature of their own contributions. But they do all commit to a global temperature target, namely, to restrict global warming to “well below 2°C above pre-industrial levels”, and ideally 1.5 degrees. The voluntary aspect sidesteps the conflict between developed countries and developing countries that often overshadowed the work of the United Nations Framework Convention on Climate Change (UNFCCC). The Paris Agreement requires all parties to submit new NDCs every five years from 2020. This is significant, because the emissions of many emerging economies have increased massively since the division into Annex I and non-Annex I in 1992. China for example has become the world’s largest emitter of greenhouse gases, with considerably higher per capita emissions (8.9 t CO_2) than the European Union (5.4 t CO_2). However, the developed countries are still expected to take the lead.

The central tension within the Paris Agreement lies between the voluntary nature of the contributions and the level of ambition required to stay within the temperature limits: in other words the quality and quantitative target of the NDCs. The ratchet mechanism is supposed to overcome these tensions. Firstly, the contributions should represent the “highest possible ambition” (Article 4 (3)) and reflect countries’ “common but differentiated responsibilities and respective capabilities”. And the level of ambition should successively increase. Secondly, the enhanced transparency framework (Article 13) aims to ensure that NDCs are comparable and reveal progress (and lack thereof) in implementation through regular reporting. These reports must be submitted by the end of 2024. The size of the contributions is not judged. Nor are there any sanctioning mechanisms (aside from unofficial “naming and shaming”) in the event of failure to meet national targets. Thirdly, the GST process — the first of which was concluded at COP 28 in Dubai in 2023 — is designed to assess *collective* progress, reveal deficits in all areas, and inform the next round of NDCs. Although financing does not strictly form part of the ratchet mechanism, Article 3 of the Paris Agreement does acknowledge that developing countries require support in implementing their NDCs.

The first and second generations of NDCs

The elements of the ratchet mechanism were not yet fully functional when the first NDCs were prepared in 2015 and updated in 2020/21, as negotiations for the Paris Rulebook dragged on until 2018 (with certain aspects not settled until 2021). The like-minded developing countries (LMDCs) fought for a separate set of standards to water down the ratchet mechanism, but developed countries and more ambitious developing countries were largely able to prevent this. Stricter and increasingly standardised formal requirements began to take effect with the second generation of NDCs in 2020/21 (with targets for 2030). While the first NDCs in 2015 tended to be brief and often vague political declarations, 94 percent of the 2020/21 updates specified quantifiable reduction targets and 80 percent named economy-wide targets as well as sectoral targets. They also increasingly included other greenhouse gases such as methane. The NDCs have increasingly become robust planning documents characterised by improvements in the underlying data and growing support within the respective governments.

Yet the second round of NDCs contained only marginal additional reductions in greenhouse gases, and their comparability was limited. Targets based only on “business-as-usual” scenarios, inadequate measurements in the land use sector, and opacity concerning CO_2 sinks and removal continue to undermine the quality of many NDCs.

Many developing countries include conditional elements in their NDCs. They are willing to do more for climate protection but lack the financial means to implement ambitious reduction targets. In Kenya’s NDC, for example, 79 percent of the mitigation measures are conditional — with a price tag totalling US$14 billion. Altogether the conditional elements across all NDCs (US$1.6 trillion) far exceed the annual US$100 billion for climate finance that the developed countries agreed in 2009 to provide to developing countries from 2020. In many cases the cost calculations for mitigation measures remain opaque. NDCs are generally not yet an appropriate basis for investment decisions.

The third generation of NDCs

The next round of NDCs is due at the beginning of 2025, with targets for 2035. By utilizing the recommendations of the first Global Stocktake they are supposed to become so-called NDCs 3.0. This rhetoric is pushed by the United Nations, developed countries and international organisations, as well as the COP presidencies troika (United Arab Emirates, Azerbaijan and Brazil). Although the NDC 3.0 concept remains rather vague, three key elements can be identified.

Firstly, the *formal* requirements for NDCs are to be further tightened in the third generation. The GST encourages all countries to include all greenhouse gases and all economic sectors in their contributions (whereas the Paris Agreement (Article 4 (4)) calls for developed countries to lead the way while developing countries "move over time towards economy-wide emission reduction or limitation targets").

Secondly, the GST's new *substantive* recommendations seek to enhance the ambition and sectoral precision of the NDCs. In this respect NDCs 3.0 will potentially impinge much more heavily on the nationally determined nature of NDCs, because states are at least required to explain how their contributions satisfy the GST recommendations. Twelve recommendations relate to mitigation, including an explicit call to make the NDCs compatible with the 1.5 degree target. That is a tall order in light of the small remaining CO_2 budget for 1.5 degree pathways. The so-called GST energy package encourages the parties to transition away from fossil fuels and to triple their renewable capacity and double the rate of energy efficiency improvements by 2030. It seeks to incentivise ambitious sectoral goals that reflect the real state of the energy transition in the respective NDCs. Currently 93 NDCs include targets for renewable energy in 2030 but only 14 quantify the respective capacity. Only eleven NDCs contain a clear plan for phasing out fossil fuels.

Thirdly, NDCs should increasingly function as investment plans generating the funding required for their implementation. Building on the conditional elements that feature in roughly three quarters of all NDCs, NDCs 3.0 are supposed to lay out sectoral implementation plans stating detailed investment needs and thus ease access to private-sector finance. This idea is not fundamentally new, but it is heavily emphasised in the NDC 3.0 discourse. It is clear that there is no "one size fits all" investment plan. Each one must take account of the respective NDC and the specific financing conditions.

Taken together, these three elements create an opportunity to develop the NDCs into comprehensive planning documents. Overall, the NDC 3.0 concept adheres to the theory of change laid out in the Paris Agreement, which has dominated the debate since 2015: In order to address the problem of compliance being voluntary, the ratchet mechanism needs to be as stringent as possible to allow the NDCs greater reach, complexity and sectoral specificity.

NDCs and the old dichotomy

In advance of submission of the NDCs 3.0, resistance is strongest around the second and third elements (GST implementation and investment plans). Both conflicts originate in the fact that the NDCs — and thus fundamentally the Paris Agreement's model for increasing ambition on emissions reduction — have been dragged into the underlying conflict between developed and developing countries. On the one hand, this dichotomy has recently been overcome in relation to loss and damage and the first GST. When the loss and damage fund was set up, Germany and the United Arab Emirates (viz a developed country and an emerging economy) each promised to contribute US$100 million. Subsequently a broad coalition of developed and developing countries agreed on the GST and its energy package. On the other hand, the conflict has never been resolved in the UNFCCC context and continues to overshadow finance in particular — which is exactly where the Paris Agreement acknowledges the greatest disparities between developed and developing countries. More broadly, the geopolitical crises of recent years have eroded developing countries' confidence in multilateral processes and the Global North. Given the rapidly shrinking CO_2 budget for 1.5 degree pathways, issues concerning distribution and fairness can be expected to resurface in the NDCs of particular countries. That is precisely the conflict that the Paris Agreement sought to minimise.

Country groups' struggles over GST-implementation

There are two points where this faultline becomes visible. Firstly, since early 2024 a dispute has erupted over the character of the GST and the implementation of its recommendations. Many developing countries, led by LMDCs including Saudi Arabia, India and China, argue that the GST should be treated as an "à-la-carte" menu rather than a binding package. They emphasise the *national* character of the NDCs and seek to relativise the scope and specificity of the GST. In many respects this rehashes differences that had already been overcome in the GST negotiations in 2023. Of course, it contravenes the spirit of the GST if countries spotlight individual sections on natural gas as a bridge fuel while ignoring sections on energy efficiency and transitioning away from fossil fuels. But most developed countries are also noticeably more enthusiastic about expanding renewables than pursuing energy efficiency targets. The G7 did agree on language to largely phase out coal by 2035 for their NDCs. Yet despite deciding to transition away from fossil fuels they again stressed the role of natural gas in future energy supply.

The same conflict also broke out at the sessions of the Subsidiary Bodies in Bonn in June 2024, where it overshadowed the negotiations on an implementation dialogue for the GST. The real-world impact of such a dialogue may be limited, but the talks revealed how the coalitions and tactics have shifted since COP 28. While the developed countries called for full implementation of the GST, LMDCs and African countries insisted that under "implementation" they would only discuss financial support from developed countries. The developed countries found themselves with only the Alliance of Small Island States on their side. The Independent Association of Latin America and the Caribbean played a constructive bridging role and ultimately engineered the compromise of discussing the implementation of all elements of the GST but focussing on finance in each case.

NDCs and the question of finance

The second conflict concerns the relationship between NDCs and their financing. Within the UNFCCC climate finance is the most sensitive issue in the developed/developing country dichotomy, and touches directly on questions of fairness and justice. It is estimated that non-developed countries (excluding China) will require US$2.4 trillion annually from 2030 to fund the green transformation. Since the adoption of the GST energy package it has become clear that there are enormous regional differences in capacity to expand renewable energy sources and that lack of funds represents the biggest obstacle to tripling renewables by 2030 (especially in Africa). High interest rates and fiscal austerity make it hard for African states and other developing countries to raise the enormous amounts of up-front capital required for renewable energy.

The investment plans that the NDCs 3.0 are supposed to include are at least an implicit answer to the funding deficits. They fit seamlessly into the attempts to divert international finance flows into green projects and align them with the Paris Agreement. In view of the scarcity of public capital, anchoring the investment plans in the NDCs is supposed to send a clear political signal and thus mobilise further private investment. The exact form — and thus potential — of these investment plans remains unclear. But it appears questionable whether they can live up to the transformative rhetoric of the NDCs 3.0. The countries that already have such plans tend to be smaller economies like the island of Barbados. Kenya published an "Energy Transition and Investment Plan" in 2023 that aims to implement parts of its NDC and integrate them with its development goals. Outside the UNFCCC, investment plans are a central element of the Just Energy Transition Partnerships (JETPs). In countries like South Africa and Indonesia national governments have developed detailed plans for JETPs in collaboration with representatives of a group of developed countries, principally from the G7 (the so-called International Partners Group, IPG). The plans lay out how funds already promised by the IPG can best be used for the energy transition in the respective countries in order to achieve the climate targets laid out in their NDCs. However, the technical complexity of these plans — with sectoral modelling, identification of projects and planning of financing — stretched even the capacity of the involved G7 countries.

The negotiations for the New Collective Quantified Goal (NCQG), which is to be adopted at COP 29 in Azerbaijan in November 2024, lend additional weight to the question of linking the next NDCs and climate finance. The NCQG replaces the old financial target of US$100 billion annually until 2025, which was introduced in 2009 and extended until 2025 in 2015 in the context of the Paris Agreement. This sequence — adopting the NCQG at COP 29, after the GST (COP 28) but before the new NDCs (COP 30) — corresponds with the stance of many developing countries. They regard financial support as a precondition for ambitious NDCs. An initiative by the troika made the link explicit, calling for "reframing the ambition" of the NDCs. In other words, developing countries should measure the extent of their mitigation action laid out in their NDCs against the amount of support and funding they receive from developed countries. The Azerbaijani delegation in particular insisted on this position at the sessions of the Subsidiary Bodies in Bonn in June 2024. The troika appears to be seeking to establish the NCQG and Article 9 of the Paris Agreement as elements of the ratchet mechanism. Developed countries, including the United States and the EU member states, categorically reject this.

Although such a reinterpretation of the Paris Agreement runs counter to German and European interests it is symptomatic of a wider problem. Because the NDCs are defined at the national level, developing countries will be able to tie their reduction targets to the level of the NCQG anyway — as some have already stated in informal discussions. This reverses the sequence of NDCs and financing (NCQG) contained in the investment plans of the NDCs 3.0. It also opens a new chapter in the old debate on the relationship between mitigation and finance — which is the context in which the US$100 billion goal first arose.

Initiatives to overcome the conflicts

The growing rift between developing and developed countries creates political risks for the NDC process that could weaken the ratchet mechanism of the Paris Agreement. The conflict could potentially delay the submission of the next NDCs if countries wait for the outcome of the NCQG in November 2024 before formulating their NDC (or only then give the internal go ahead for preparing them). The growing complexity of the NDCs requires significantly more technical and administrative preparation, which cannot be completed within just a few months.

At the political level the conflict hampers the formation of a broad coalition of ambitious countries for higher climate targets. While the parties may not take the NDC deadline of February 2025 too seriously, it can help to generate vital momentum and place pressure on the laggards. The prosperous developed countries of the G7, whose NDCs have been underambitious despite their financial leeway, need to lead by example. The EU views itself as a climate leader and is widely expected to submit an ambitious and early NDC. As the starting point of a diplomatic process, that would have the potential to generate momentum. However, because of the timing of the European elections and the need for the new Commission to adopt a new climate target for 2040 in light of the GST, the EU's NDC will probably not be submitted until early 2025. Moreover, the political constellation does not bode well for climate policy. The Council and the Commission could use the NDC to subvert the internal target of a 90 percent reduction by 2040 proposed by the outgoing Commission, by setting a comparably low target for 2035 that would make the 2040 target unrealistic.

Support NDCs 3.0

The NDCs 3.0 adhere to the logic of the Paris Agreement, namely, to increase the level of ambition through stringent requirements, sectoral components and integration in national planning processes. Lack of clarity on what NDCs 3.0 entail is one barrier to fully exploiting the concept's potential. The International Energy Agency (IEA) has become the institutional home of the GST energy package, representing that organisation's first official cooperation with the UNFCCC. The IEA is expected to employ its expertise to advance the implementation of the energy package in ambitious NDCs. More broadly, UN Secretary-General António Guterres is working to rally the entire UN system behind the NDCs 3.0. But better coordination of existing initiatives will not be enough. The NDC Partnership (NDCP) for example — co-founded by Germany as an alliance of states and international organisations — has supported developing countries in preparing and realising ambitious NDCs and created a new online tool. But otherwise, it has only relabelled its existing funding programme to mention NDCs 3.0. If NDCs are really to make substantial progress, organisations like the NDCP will have to provide a great deal of additional technical support.

This applies in particular to the investment plans. To date the concept has remained vague and has been inadequately fleshed out with examples and best practices. Here the thinking needs to extend beyond NDC-adjacent organisations such as the NDCP. In recent years only the JETPs have pursued a strategic approach to raising private-sector funding on a large scale for climate and energy projects and sourcing public investment at levels adequate to at least induce first steps of a transformation. Although their results may be mixed, systematic attempts should be made to harness the experience of the JETP investment plans for the NDCs. This is primarily a matter for the G7 countries and multilateral development banks, with the latter seen as having the greatest technical competence in this domain. In view of the financial constraints, investment plans may fall short of expectations — but they must be formulated for the NDCs anyway.

Expand NDC diplomacy

Better technical support and investment plans alone are not going to persuade major emitters like the G20 states to set ambitious targets. Diplomatic initiatives are needed to overcome or at least ameliorate the political differences. The decentralised NDC process is unhelpful here, because it lacks the spatial and temporal compression of the COP negotiations. Instead, an ambitious coalition of actors should apply sustained pressure on reticent major emitters behind closed doors, in multilateral forums and publicly through their own NDCs. As well as a great deal of diplomatic work, this will require political support at the highest level.

The Multi-Stakeholder Alliance announced by German Foreign Minister Annalena Baerbock at this year's Petersberg Climate Dialogue could offer a way forward. It aims to bring together ministries, financial institutions and the private-sector with civil society, indigenous peoples, international organisations and existing initiatives to mobilise support and funding for ambitious NDCs. The alliance could play an important role in placing NDCs on the international political agenda and above all ensuring that the international financial institutions are kept in the loop.

Diplomatic focus should be given to the GST's energy package. With respect to NDCs of emerging economies with high emissions, Germany and the EU should prioritise implementation of the GST and ambitious energy sector targets over the compatibility of individual NDCs with 1.5 degree pathways. There are several reasons for this: It is scientifically dubious to equate the NDCs of individual countries, which cover just a limited period (2035 — 40), with a global 1.5 degree pathway through to the end of the century. Doing so involves assumptions about fair and effective distribution of the remaining CO_2 budget for the 1.5 degree target that would inevitably deepen the rift between the developed countries and developing countries. On the other hand, implementation of the GST offers an opportunity to anchor the real existing energy transformation more firmly in international climate policy and to exploit their great potential for greenhouse gas reduction more thoroughly. As COP 28 demonstrated, this opens up possibilities for coalitions spanning the developing/developed divide. Germany and the EU must work with important emerging economies (first and foremost the LMDCs) to establish a clear shared interpretation of the energy package by COP 29 at the latest. A statement of this nature in the final declaration of the Brazilian G20 presidency would be useful.

Brazil as key actor

Brazil can play an important role in overcoming these faultlines. Its international reputation as host of COP 30 will depend crucially on whether the parties submit ambitious NDCs in good time before the conference. Brazil will want to ensure that the troika's concentration on COP 29 and the issue of finance does not undermine its own COP presidency — even if Brazil is itself among those who insist on making ambitious NDCs conditional on funding commitments. Together with the other troika members — the UAE and Azerbaijan — Brazil has committed to submitting an NDC conforming with the 1.5 degree target as early as the UN's General Assembly in September 2024, and to include civil society and indigenous communities in the preparatory process.

Integrating Brazil closely into the process of establishing the Multi-Stakeholder Alliance and the associated activities would increase their effectiveness. Coordinated diplomatic activities with Brazil could encourage potential pioneers to present ambitious NDCs at COP 29 and generate political momentum even before the NCQG is adopted.

Bridges should also be built to other processes such as the G20 Sustainable Finance Working Group in order to promote a holistic NDC process. Brazil has put its weight behind developing the financial frameworks for the climate transformation, building on the G20 Transition Finance Framework of 2022. With this initiative the G20 is seeking to coordinate transformation plans and funding frameworks. Initiatives like this offer the opportunity to treat climate finance and ambitious NDCs as mutually beneficial rather than playing them off against each other. The Multi-Stakeholder Alliance could put out feelers to countries like Saudi Arabia, which has been blocking both GST implementation and the Sustainable Finance Working Group.

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ISSN (Print) 1861-1761
ISSN (Online) 2747-5107
DOI: 10.18449/2024C33

Translation by Meredith Dale

(English version of SWP-Aktuell 37/2024)