

Outlook and Issues Concerning Global Warming Policy in 2022

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Key Points of the Report

- ✓ 2022 will see the start of two investigative processes: 1. the first process in conducting a "global stock take," an assessment conducted every five years to gauge overall progress toward achieving Paris Agreement targets, and 2. a follow-up review of 2020 target achievement.
- ✓ In the U.S., a key point will be whether the Senate passes a social policy and climate bill that includes \$555 billion in funding for clean energy. Much hinges on what policies or measures will be taken if the bill does not pass.
- ✓ How carbon pricing will be globally implemented or discussed will be something to watch, including with respect to Russia as well as Indonesia and other Southeast Asian countries.
- ✓ In Japan, FY 2030 targets could be re-examined or strengthened "as necessary." Additionally, further consideration will need to be given to more specific policies and measures, as well as how carbon pricing should be implemented.
- ✓ On October 14, the Task Force on Climate-related Financial Disclosures (TCFD) suggested the need for all organizations to consider disclosing information about "Scope 3" greenhouse gas emissions, which consist of all emissions other than own direct emissions and indirect emissions resulting from purchased energy. It also presented greenhouse gas emissions for which funding was provided via loans or investments as an example of an indicator that the finance sector, for example, should disclose. While such measures are likely to become more prevalent, steps will need to be taken to ensure that economic activity for which there is no avoiding an increase in emissions relative to funding will not be treated improperly.

Goals countries announced for COP26

	2030	2050 and beyond
China	10/28 NDC: Reduce CO ₂ per unit of GDP from 2005 levels 60–65% --> 65%	10/28 Long-term strategy
U.S.		11/1 Long-term strategy
India	11/1 Reduce GHG per unit of GDP from 2005 levels 33–35% --> 45%	11/1 Net zero emissions by 2070
Russia		10/13 Carbon neutral by 2060
Brazil	11/ Compared to 2005 43% drop --> 50% drop (10/31 NDC 2050 CN)	
Japan	10/22 NDC	10/29 Long-term strategy
Saudi Arabia	10/23 NDC Compared to BAU 130 Mt drop --> 278 Mt drop	10/23 Carbon neutral by 2060
Australia	10/28 NDC No change	10/26 Net zero emissions by 2050 (10/29 Long-term strategy)
Turkey	10/11 NDC submitted	9/27 Net zero emissions by 2053
UK		10/19 Long-term strategy
Argentina	11/2 NDC emissions target 359 Mt --> 349 Mt	

All G20/OECD nations have now announced net zero emissions and carbon neutrality targets

Overview of COP26 Results

Overview of Results

Paris Agreement Article 6 mechanism (international carbon market rules)
Complete Paris Agreement working plan

- Guidance on cooperative approaches referred to in Article 6, paragraph 2 (internationally transferred mitigation) (guidance on matters such as the avoidance of double counting)
- Rules, modalities, and procedures for the mechanism (UN control mechanism for emissions reduction projects) established by Article 6, paragraph 4
- Work program under the framework for non-market approaches (capacity building and other NDC support) referred to in Article 6, paragraph 8
- Requests such as for registration and issuance concerning emissions reduction in 2021 and beyond will be made through the Article 6, paragraph 4 mechanism as they cannot be submitted under the CDM

Raising of 2030 targets

- Establish working plan to urgently scale up mitigation (reduction) ambition and action in the 2020s
- Request that signatory nations review and strengthening of 2030 NDC targets by the end of 2022 as necessary to align with Paris Agreement temperature targets
- Hold annual high level cabinet-level roundtable discussions starting in 2022 for ambitions up to 2030

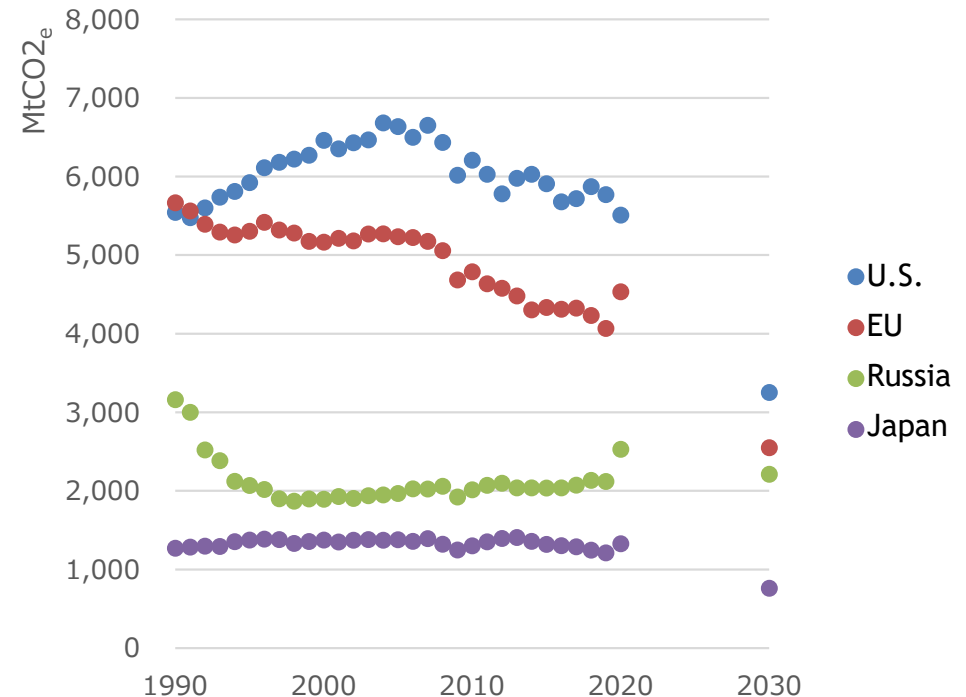
New shared numerical targets for climate finance that will replace the current target of securing \$100 billion between 2020 and 2025

- Establish ad hoc working plan for 2022–2024
- Hold high level cabinet-level dialogues from 2022 to 2024
- Continue discussing new shared numerical target setting from 2022 through 2024

- Preliminary review of 2030 target levels
 - IPCC's Sixth Assessment Report
 - February: Working Group II report
 - March: Working Group III report
 - Global stocktake (assessment conducted every five years to gauge overall progress toward achieving Paris Agreement targets)
 - June: Data collection / preparation
 - November: First technical assessment
- Process based on CMA3 decision
 - Review/strengthen 2030 NDC targets
 - Annual high level cabinet-level roundtable discussions on ambitions up to 2030
 - Establish working plan to urgently scale up mitigation (reduction) ambition and action in the 2020s

- Follow-up review of 2020 target achievement
 - Submit biennial report on developed countries' 2020 targets

GHG emission results and targets
(2020 / 2030)



Sources: UNFCCC, GHG Data Interface

G7 / G20 host countries

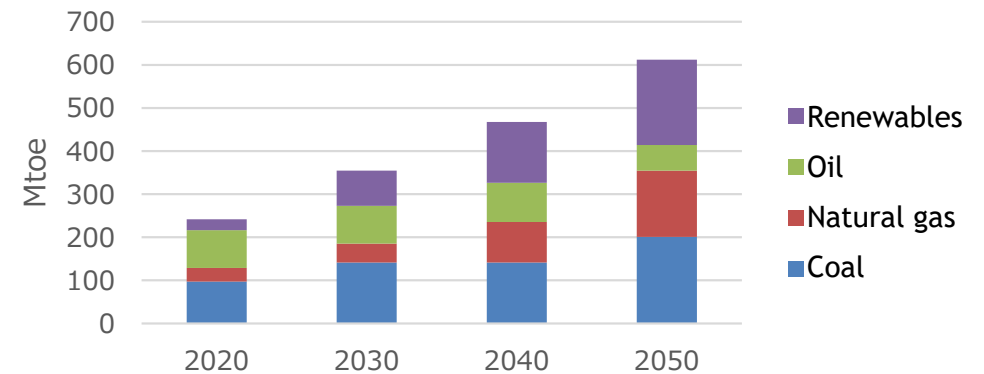
- G7 host country: Germany
 - Coalition of Social Democratic Party, Free Democratic Party, and the Greens

Key agreements	
2030 target	Keep current levels and sector-specific targets
Coal-fired power	Ideally decommission in phases up to 2030
Renewables	Boost 2030 target from 65% to 80%
Gas-fired power	Natural gas is essential for transitional period. New gas-fired power plants will be required to be hydrogen ready.
Electric vehicles	15 million by 2030 (with the possibility of E-fuel vehicles)

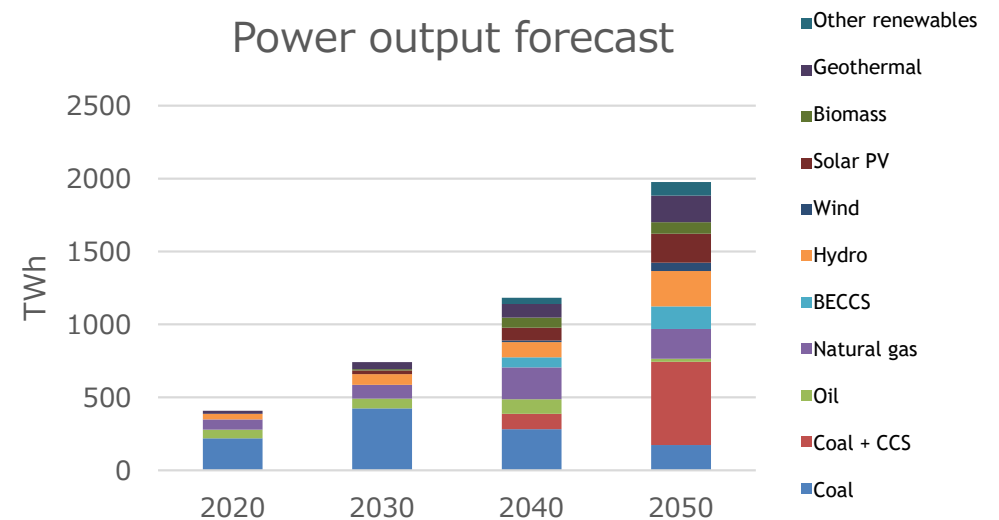
- Include new capital expenditure measures for 1.5°C target A1
- Habeck from the Greens to serve as both Vice-Chancellor and leader of Ministry for Economic Affairs and Climate Action

- G20 host country: Indonesia

Primary energy supply forecast



Power output forecast



Source: Indonesia's Long-Term Strategy (Low Carbon Scenario Compatible with Paris Agreement target)

スライド 6

A1

「Ministry for Economic Affairs and Climate Action」

参考：

<https://www.bmwi.de/Navigation/EN/Home/home.html>

「経済エネルギー省」から「経済・気候保護省」へと改組。

<https://www.eic.or.jp/news/?act=view&serial=46574&oversea=1>

作成者, 2022/01/15

	2021	2022
China	<ul style="list-style-type: none">● July: Began emissions trading● October: "Working Guidance For Carbon Dioxide Peaking And Carbon Neutrality" announced by the State Council of the People's Republic of China<ul style="list-style-type: none">- Lower CO₂ per unit of GDP by >65% from 2005 levels- Increase non-fossil fuel energy as a proportion of primary energy consumption to 25%- Increase wind and solar PV installed capacity to 1,200 GW- Increase forest area to 25%- Increase accumulated carbon storage in forests to 19 billion m³● "Action Plan for Carbon Dioxide Peaking Before 2030" from the State Council of the People's Republic of China	<ul style="list-style-type: none">- Consider expanding target sectors - How to design policy and measures such as systems for controlling both energy intensity and total consumption?
U.S.	<ul style="list-style-type: none">● November: Signed \$1.2 trillion infrastructure investment bill● November: \$2 trillion social spending and climate budget reconciliation bill passed the House, moved to Senate	<ul style="list-style-type: none">- If Congress fails to pass the bill, 2030 targets are expected to go unmet. If that happens, will need to watch for what policies and measures are taken next.

	2021	2022
EU	<ul style="list-style-type: none"> ● July <ul style="list-style-type: none"> - Proposals for expanding EU ETS into the transport and consumer sectors, for effort sharing rules, for energy saving and renewables policies, and for strengthening vehicle CO₂ emissions standards - Proposal for carbon border adjustment mechanism rules ● December <ul style="list-style-type: none"> - Proposals for mandates and rule revisions concerning gas markets and hydrogen - Proposal for methane emission rules* - Revised energy performance and buildings directive - Communication on Sustainable Carbon Cycles 	<ul style="list-style-type: none"> - Important here will be discussions at European Parliament meetings, ministerial meetings, and European Commission meetings concerning proposals for policies and measures aimed at achieving 2030 goals - By the end of 2022, the European Commission will propose a regulatory framework for certifying carbon removal
India	<ul style="list-style-type: none"> ● August: National Hydrogen Mission ● November: Modi's declaration at COP26 <ul style="list-style-type: none"> - Increase non-fossil energy capacity to 500GW - To meet 50% of energy demand with renewables - Reduce anticipated greenhouse gas emissions by 1 billion tons - Reduce GHG per unit of GDP by >45% from 2005 levels - Achieve net zero emissions target by 2070 	<ul style="list-style-type: none"> - How will the country promote an "economy centered on natural gas" alongside hydrogen (make gas 15% of the energy mix by 2030 and supply natural gas via CNG and pipelines) - How to design policies and measures for target achievement?

*Importers must submit information on how suppliers are monitoring, reporting, and verifying emissions. By 2025, the European Commission must consider applying these regulations and, if necessary, submit regulatory revisions to strengthen requirements applicable to importers.

Russia, Indonesia, etc.

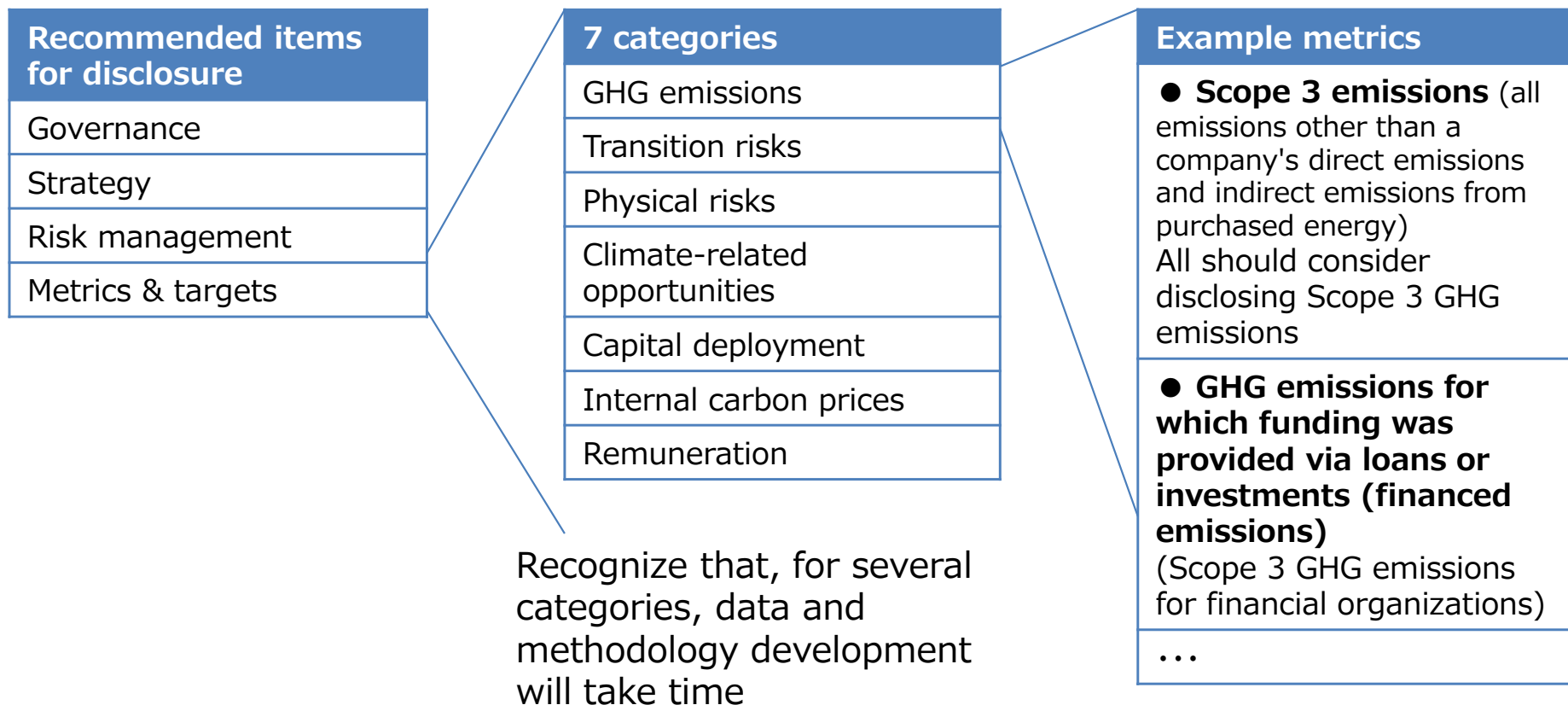
	2021	2022
Russia	<ul style="list-style-type: none">● June: Passed greenhouse gas reporting law; promulgation in October● August: Hydrogen strategy (concept)● October: Carbon neutral by 2060	<ul style="list-style-type: none">- Greenhouse gas reporting law promulgation- Discuss emissions trading system and carbon tax
Indonesia	<ul style="list-style-type: none">● July: Long-term strategy, will explore 2060 net zero emissions target● October: Approved tax overhaul law (carbon tax implemented)	<ul style="list-style-type: none">- April: Carbon tax goes into effect (for coal-fired power, a carbon tax of 30 Rupees/kgCO₂ (¥243/tCO₂) levied on emissions exceeding the cap)
Thailand	<ul style="list-style-type: none">● November: Carbon neutral by 2050, net zero emissions by 2065	
Vietnam	<ul style="list-style-type: none">● November, 2020: Passed revised Law on Environmental Protection (establishing an emissions trading system)● November: Net zero emissions by 2050	<ul style="list-style-type: none">- January: Emissions trading system promulgation

	2021	2022
Japan	<ul style="list-style-type: none">● February: Begin discussing carbon pricing<ul style="list-style-type: none">- Subcommittee on Utilization of Carbon Pricing established under the Central Environment Council- METI study group on ideal economic approaches● April: Strengthened FY 2030 targets (reduce by 46% from FY 2013 levels)● July: Roadmaps on transition finance (steel, international shipping, chemicals, etc.) and model businesses● August: Projects selected for funding under the Green Innovation Fund<ul style="list-style-type: none">- Field of energy mix transitioning (e.g., usage of hydrogen and CO₂)- Field of industrial restructuring (batteries, aircraft, marine vessels, etc.)- Field of green power promotion (solar cells, offshore wind power generation)● October: Revisions to Plan for Global Warming Countermeasures and long-term strategy	<ul style="list-style-type: none">- Pioneering companies participated, emissions reduction targets were set, and proof of "Carbon Neutral Top League" concept for conducting market-based emissions trading- Review/strengthen by the end of 2022 "if necessary" <div style="border: 1px dashed black; padding: 5px;"><ul style="list-style-type: none">- Discuss Clean Energy Strategy for Green Transformation (GX: transition to green economy)</div>

Trends Concerning the Disclosure of Climate-Related Financial Information (1/2)

- On October 14, 2021, the Task Force on Climate-related Financial Disclosures (TCFD) announced the **Guidance on Metrics, Targets, and Transition Plans**

Specified seven categories of climate-related metrics to be disclosed by all organizations



Trends Concerning the Disclosure of Climate-Related Financial Information (2/2)

- How financed emissions are calculated
 - There is as yet no globally-accepted standard for measuring and disclosing financed emissions.
 - The PCAF (Partnership for Carbon Accounting Financials) and Global GHG Accounting and Reporting Standards (November 2020) are the most prominent standards (the PCAF is an industry-led initiative)
 - There is a methodology for measuring financed emissions for six asset classes ((1) listed equity and corporate bonds, (2) business loans and unlisted equity, (3) project finance, (4) commercial real estate, (5) mortgages, and (6) motor vehicle loans)
 - Emissions from actual economic activity are divided proportionally according to calculation rules based on monetary amounts, etc.
- Financed emission implementation likely to have impact on operating companies
 - Financial institutions request climate-related information disclosure
 - Could weaken incentives to provide funding for activities with high emission intensity (need to take steps to ensure that there is no improper treatment of economic activity for which there is no avoiding an increase in emissions relative to funding)
 - Transition plans are required