

## Task Force 2: Energy, Climate and Sustainable Development



# Decarbonizing the Future amid an Uncertain Present. Assessing Combined Challenges and Initiating New Policy, Financial and Technology Solutions on Land and at Sea

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## Abstract

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It took more than a decade for developed countries to start fulfilling the 100 billion US dollars climate finance pledge from the Copenhagen COP15 and tense discussions prevailed for the creation of the loss and damage fund acknowledged at the COP28. Hence, global commitments remain far from matching the actual needs of developing countries, both in terms of quantity and quality.

In 2023, think-tanks from the G7 (T7) and G20 (T20) underlined that addressing the climate crisis is inseparable from enabling just energy transitions and from addressing the debt crisis in the Global South. Additionally, climate adaptation scenarios have been overlooked in favour of climate mitigation pathways, largely reflecting developed nations priorities.

Whereas converging evidence shows that the 1.5° limit set up by the Paris Agreement could not be achieved by 2030 and global warming tends to accelerate, energy security has swiftly taken the centre stage of climate talks. Fossil fuel subsidies have reached historically high levels, including in G7 countries, while geopolitical uncertainties affect the allocation of ODA. This questions the feasibility of recent pledges by the G7 – and other major countries, whereas vulnerable countries such as small island states are exposed to rapidly mounting risks.

Climate finance, quoted by UNFCCC as the “great enabler of climate action” at the COP28 is acknowledged as a priority for the climate talks ahead of the Baku COP29. However, accessing to climate finance – public, private, blended – remains challenging for many lower- and middle-income countries, in a context of fragmented geopolitics which weakens existing multilateral institutions.

Unlocking climate finance, especially in the countries that are on the forefront of climate risks, is a priority of common interest for all. Therefore, the present policy brief explores some climate actions which the G7 could rapidly spearhead to restore a multilateral capacity to act – including financially – for and with the most vulnerable. It also calls for an enduring cooperation among think-tanks within the G7 and G20, and beyond.

The present policy brief is complemented by two special focus, exploring the impacts of climate disclosure to support the unlocking of climate finance and proposing an innovative roadmap for sustainable ocean financing.

# 1. Challenges

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## 1.1 The 1,5° target is becoming increasingly difficult to reach

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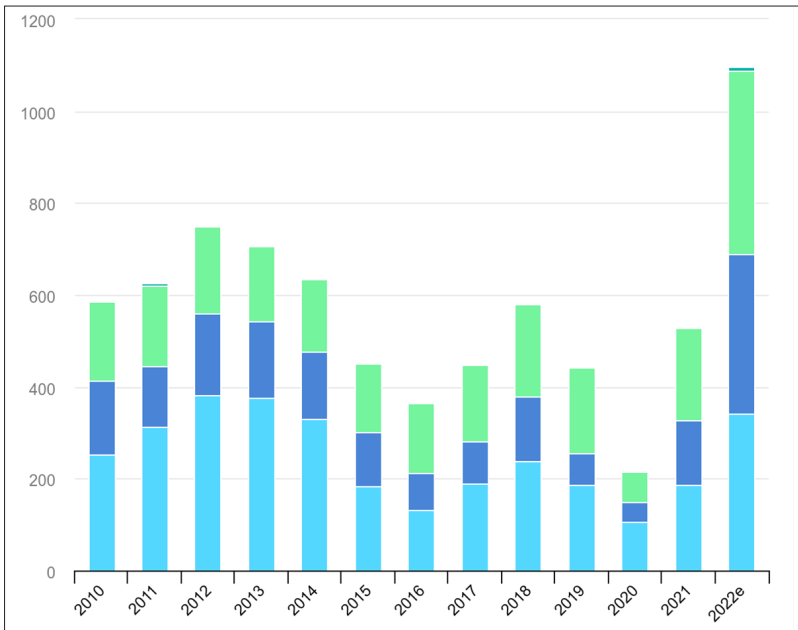
In 2023, the G7 Climate, energy and environment ministers agreed to “accelerate the phase-out of unabated fossil fuels so as to achieve net zero in energy systems by 2050” after tough negotiations (G7 2023: 17). Besides, the G7 members could not agree on a timeline to phase out coal-fired power plants, and reviews of the progress made at the occasion of the G7 Italy meeting of Environment ministers in April 2024 were rather critical (Civil7 2024). The issue of phasing out fossil fuel took centre stage at the negotiations of the COP28 amid some confusion and it is poised to remain so in the context of the newly introduced ‘troikas’ of COP presidencies including Azerbaijan in 2024 and Brazil in 2025.

Back in Dubai, the secretary general of UNFCCC announced this was “the beginning of the end” of the fossil fuel era, at the COP closing press conference (UNFCCC 2023). The latest edition of the International Energy Agency (IEA) flagship report in renewables details the engagement of over 130 national governments to “work together to triple the world’s installed renewable energy capacity to at least 11 000 GW by 2030” at the COP28 (IEA 2024: 3), while the G20 could triple its capacity by 2030. New initiatives such as the Biofuel Alliance (G20 India) or the Bioeconomy Initiative (G20 Brazil), illustrate the growing commitment from major emerging economies, which is also confirmed by China, not to mention the catalytic role of Inflation Reduction Act (IRA) in the United States (Reuters 2023) and the Green Deal in the European Union.

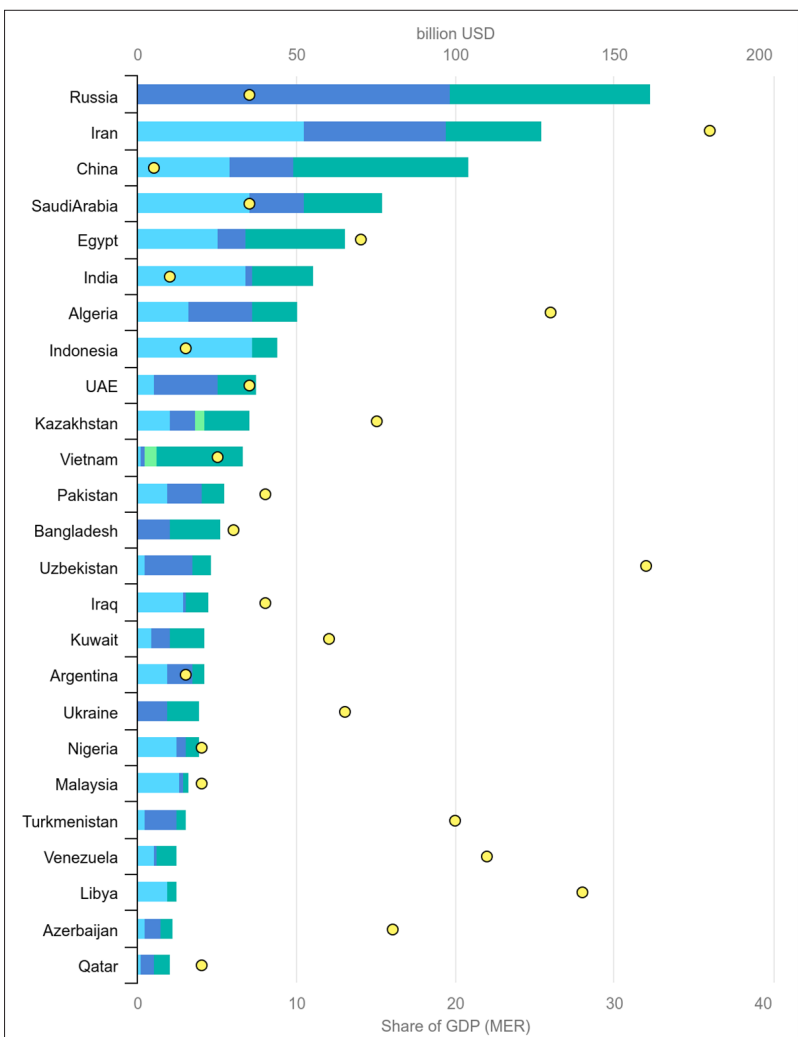
Yet, the exploration and production of coal and oil and gas is also increasing significantly (UNFCCC 2023). Some major oil producing companies have retracted from previous sustainability, CO<sub>2</sub> emissions and carbon offsetting commitments, which stand among the largest distributors of dividends to their shareholders globally (Yoder 2023). Carbon capture and storage (CCS) solutions are promoted by major industry stakeholders amid controversies about their effectiveness in reducing GHG emissions, as was illustrated during the COP28 itself (Drugmand 2023).

Despite the urgent need to reduce fossil fuel consumption globally, these energy sources receive rising financial support from governments around the world, including in the G7. This comes although at the COP26 in 2021, countries promised to accelerate efforts toward the phasedown of unabated coal power and the phase-out of inefficient fossil fuel subsidies, and financing for fossil fuels contradicts the Paris Agreement, which calls parties to “ensure finance flows are consistent with a pathway toward low GHG emissions and climate-resilient development”. (Article 2.1(c)). The G7 countries provided an annual average of 87.7 billion US dollars in subsidies for fossil fuels based on data from 2017 to 2019, with France, the UK, and Canada being the largest contributors among their peers. On a global scale, the IEA reports that fossil fuel subsidies surpassed 1 trillion US dollars in 2022, doubling the figure from 2021 and a fivefold increase as compared to 2020 (IEA 2023a).

**Figure 1** | Fossil fuel consumption subsidies by fuel, 2010-2022



**Figure 2** | Value of fossil-fuel subsidies by fuel in the top 25 countries, 2022



Source: IEA 2023a.

While the controversy about fossil fuel is developing, there is mounting evidence that limiting the global temperature rise to below 1.5°C has become elusive. The International Panel on Climate Change (IPCC) Climate Change 2023 Synthesis Report indicates that the global surface temperature from 2011-2020 was already 1.1°C above the 1850-1900 average (IPCC 2023: 4). Recent studies predict a potential breach of the 1.5°C threshold within the next decade to fifteen years (Diffenbaugh and Barnes 2023).

The European Centre for Medium-Range Weather Forecast (ECMWF) estimates that if the current 30-year warming trend would continue, global warming could reach 1.5°C by August 2033 (ECMWF 2024). As the year 2023 marked an annual average global temperature increase of  $1.45 \pm 0.12^\circ\text{C}$  above pre-industrial levels, this threshold could even be surpassed sooner than expected (WMO 2024). The Earth's average temperature exceeded 2°C above pre-industrial levels for the first time on 17 and 18 November 2023 (ECMWF 2023). Many scenarios (Fleming 2021; Tollefson 2021; NASA 2023) are now building on average temperature by 2°C above pre-industrial levels. Small islands countries, small Himalayan countries, countries with lowlands, are the most exposed to the immediate impacts of such a collective failure to curb down greenhouse gas (GHG) emissions and limit global warming.

## 1.2 Persistently low and imbalanced availability of climate financing

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The G7 has repeatedly pledged to uphold the 2009 Copenhagen climate commitment to mobilize 100 billion US dollars annually in climate finance<sup>1</sup> by 2020 through to 2025 to support developing countries in their climate change efforts. It committed to fully meeting the goal in 2023 – which is believed to have happened for the first time, several years later than initially promised and whereas in the previous decade, commitments have been way below expectations.

There are concerns about the actual provision of public climate finance by developed countries, suggesting that it falls short of official figures. For example, while OECD's 2020 estimates reported total climate finance at 83.3 billion US dollars (OECD 2023: 8), these figures are based on accounting practices that may not accurately represent the true level of support provided. Oxfam estimates that in 2020, the true value of financial support specifically aimed at climate action was only about 21 to 24.5 billion US dollars, far less than the OECD reported figures (Oxfam 2023: 3).

There is a mounting consensus among developing nations that public climate finance should come in the form of grants instead of loans and new debts, and that debt and climate justice should come together. The current practice of providing over 70 per cent of climate finance in

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<sup>1</sup> For a basic and broadly agreed definition of climate finance, see UNFCCC website: *Introduction to climate finance*. <https://unfccc.int/node/15868>.

the form of loans indebts vulnerable nations and threatens their capability to invest in the future. For some, this is unfairly burdening those who have contributed the least to the climate crisis with the greatest financial strain. This stance is crucial, as countries least responsible for climate change argue that they should not have to incur loans to shield themselves from its impacts (Hill and Babin 2021). This is a major and somewhat underestimated challenge by G7 nations in times of heightened geopolitical competition. Although the lower- and middle-income countries calling for more climate justice might not represent a systemic financial risk due to their relatively low combined GDP, they are the home of several billions of people. Without more open, clear G7 support, they would be inclined to find more effective solutions elsewhere.

In 2023, G20 leaders made a significant acknowledgment regarding the actual scale of climate finance needed to achieve the Paris Agreement's objectives, noting that developing nations need an investment of between 5.8 and 5.9 trillion US dollars by 2030 to meet their Nationally Determined Contributions (NDCs). Additionally, to achieve net-zero emissions by 2050, an extra 4 trillion US dollars annually in clean energy technologies is necessary by 2030 (G20 2023: 16).

However, by the end of 2023, wealthy countries did pledge less than 0.2 per cent of the annual irreversible economic and non-economic losses faced by developing countries due to global warming to the Loss and Damage Fund (Lakhani 2023), with these losses expected to surpass 400 billion US dollars annually (Richards et al. 2023).

As a conclusion, there is an urgent need for the G7 to recalibrate its climate actions. It can play a more pro-active role in facilitating cooperation well beyond its member countries to support nations facing immediate and urgent climate vulnerabilities, especially in the Asia Africa Pacific region, starting with small island states and similarly vulnerable countries. The persistently low availability of climate financing calls for a proactive cooperation with other major emitters, such as through the G20, to prioritize joint commitments in favour of debt alleviation. Such partnerships could also help mobilize and de-risk private investments.

### **1.3 Impacts of the new 'realpolitik' of energy security on climate finance**

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At the time of the Covid-19 pandemic, calls multiplied to support the economy through green recovery plans (Stern 2020; Buchoud et al. 2021a). The aspiration to 'build back better' then took the form of the Green Deal in the European Union or the Inflation Reduction Act (IRA) in the United States. However, as new conflicts such as the war in Ukraine have erupted and the global geopolitical interplay has become more uncertain, the importance of energy security has become an overshadowing concern.

G7 countries have been growingly looking to secure their provision of oil and gas and of strategic minerals, calling upon more work by 'like-minded countries' to 'de-risk' value and supply chains,

at the risk of spurring more geopolitical fragmentation and tensions detrimental for growth.<sup>2</sup> At the G7 Summit in Hiroshima in May 2023, G7 leaders even had to reiterate their commitments to avoid harming the Chinese economy and refrain from ‘de-coupling’. Besides, BRICS countries have also strengthened their cooperation since the G20 Indonesia in 2022 and they agreed upon a BRICS+ format in 2023 aiming among other to facilitate intra BRICS exchanges and cooperation. At the 2023 summit in Johannesburg, the BRICS leaders explicitly tied energy security and fossil fuels, recognizing “the role of fossil fuels in supporting energy security and energy transition” and welcoming “joint research and technical cooperation within the BRICS Energy Research Cooperation Platform” (BRICS 2023: para. 70).

In the past years, the G7 has initiated several attempts to promote new governance proposals such as “energy transition partnerships”, the “climate club” or “country packages for forest, nature and climate”, not to mention its support the ‘evolution’ of the role of multilateral development banks and the “reform of the global financial architecture”. Yet, such initiatives in favour of a “new sustainable economy” could be contradicted by calls – and budgetary allocations – to move into a “new war economy”. Across the G7, bilateral and multilateral aid programs have recently undergone historically high cuts (Coordination Sud 2024).

## 2. Recommendations

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The financial support promised by developed countries to lower- and middle-income countries to meet their climate financial needs has been slow to become a reality in the past fifteen years. Since the Covid-19 pandemic and furthermore, the outbreak of the war in Ukraine, competing priorities have emerged, especially that of energy security. Whereas the views from G7 and BRICS countries tend to diverge, both groups tend to bring strong support to fossil fuels and meanwhile, the 1,5° target from the Paris Agreement seems more difficult to reach and climate and sustainability finance gaps have become systemic. New solutions and policy strategies should therefore be explored.

### 2.1 Building on the on-going re-articulation of multilateralism

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At first, G7 countries could make a better use of their engagement, including within the G20 to promote climate cooperation, as the G20 has remained in the past years a pivotal place to promote global engagement.

Despite of the outbreak of the war in Ukraine, the G20 presidency of Indonesia succeeded in promoting a common declaration of G20 Leaders in the fall of 2022, as the Bali G20 summit took

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<sup>2</sup> For instance, as the United States have engaged into a massive plan to invest in green technologies (Inflation Reduction Act), they have also actively (re)developed the extraction of fossil sources of energy.



place amid the ASEAN summit in Phnom Penh, Cambodia, and the summit of PECC in Bangkok, Thailand. In 2023, India as the chair of the G20 also joined the ASEAN summit in Indonesia, whereas ahead of the APEC summit in San Francisco, China and the United States confirmed their joint support to the objectives of Green Development Pact for a Sustainable Future adopted at the G20 Leaders' Summit in Delhi a few weeks before. As 2024 will mark the 45th anniversary of the establishment of diplomatic relations between China and the US, the quality of the China-US talks at San Francisco APEC summit was touted as a direct outcome of the G20 Bali summit the year before (China Ministry of Foreign Affairs 2023).

The articulation of the G20 summits and other levels of integrated development such as at ASEAN or APEC level possibly points out to new ways for climate diplomacy and related green investments to continue despite global fragilities or, maybe, as the very emergence of a new multipolar order. Think-tanks from the G20 and G7 have exemplified the benefits of such cooperation in 2023 during the G20 India and G7 Japan, as they pointed out to the interlinkages between debt and sustainable finance. We argue such cooperation should further apply to address the gridlock of public and private climate finance in 2024-25.

For instance, at the T7 Summit in Rome in May 2024 and at the Global Solutions Summit in Berlin across T7 and T20, ADBI has called for a wide grouping of think tanks or 'think-tanks for tomorrow' alongside IFIs, national monetary authorities, and other G7/G20 engagement groups, to take place at the COP29 in Baku. It has also initiated a new format of discussion, together with the Asia Pacific Applied Economics Association (APAEA), with monetary authorities and UNFCCC representatives of more exposed countries to climate change, as the Asia Africa Pacific Climate Finance Forum. This was exposed during a T7 side-event of the G7 Italy Ministers of Environment meeting on the climate and development finance nexus.

There is growing evidence from the G7 (Paviotti and Fattibene 2023), the BRICS<sup>3</sup> and the G20 alike that the climate crisis cannot be addressed independently from a development perspective. Within the G7, there is a growing understanding that the "West-Rest division has hindered collective efforts to address pressing global challenges" especially since the outbreak of the war in Ukraine (Messa and Mezran 2024). Besides, the G20 presidency of Brazil is promoting a triple agenda, consisting of growth and development through the G20 *per se*, of social inclusion and justice through a "G20 social" and of climate financing and decarbonization including biodiversity and pollution, through the preparation of the COP30 in 2025 in Brazil.

The combination of G7, G20 and other perspectives could prove useful to re-ignite a strong climate agenda in 2024-25. For instance, Peru will host the APEC summit in 2024 and it has highlighted a strong 'social dimension' in preparation (APEC 2023). In addition, the African

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<sup>3</sup> The BRICS 2023 Johannesburg II Declaration precisely focuses on future development models, through "mutually accelerated growth, sustainable development and inclusive multilateralism" (BRICS 2023).



Union has become a new permanent member of the G20, ahead of the G20 presidency of South Africa in 2025. Thus, existing frameworks such as the G7 Compact with Africa should be urgently revised of Africa's changing role and status on the global stage.

New perspectives for public and private climate finance and development could be fostered using multiple channels, including the engagement groups in the G7 and G20, trilateral cooperation (Chaudhury 2023) and cross-frontier cooperation. For instance, such cooperation could help design new policy space across small islands, archipelagos and atolls in Africa and Asia Pacific such as by interconnecting think-tanks, multilateral developments banks, and local central-banks to address issues such as green taxonomies, climate disclosure, or climate accounting. It could then interconnect with recent existing undertakings such as the Bridgetown Initiative (Barbados 2022)<sup>4</sup> whereas the Barbados are also chairing the Climate Vulnerable Forum (CVF) in 2024, and other value proposals such as the Global South Impact Community initiated by the Rockefeller Foundation (2022). To be effective, such new forms of cooperation should build on the lessons learned by the G7/G20 cooperation of think-tanks in the past years, in particular their capability to connect with diverse stakeholders. Hence, the development of the cooperation *for* and *with* small island states and other countries facing similar constraints and vulnerabilities could interconnect think-tanks, central banks, multilateral developments banks, amid a common agenda in the T7/G7, T20/G20, COP-29/30, etc. The development of 'regional' COPs, as exemplified in 2023 by the Africa Climate Week and Summit in Kenya, could also provide the ground for better and easy access to climate finance for low and middle-income countries, in echo of the development of stronger regional monetary cooperation, such as the ASEAN+3 Macro-Economic Research Office (AMRO) in Asia or the Arab Monetary Fund (AMF) in the Middle East.

## 2.2 Investing in a new generation of global research infrastructure and real time metering

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### **New perspectives for large-scale research infrastructure**

In 2023, the COP28 has marked a turn for multiple reasons, one of them because the attendance reached nearly 100,000 participants and because participating countries recognized the interdependence between climate, biodiversity and pollution.

The recognition of such interlinkages, in addition to that of the connection between climate / debt and development, is the result of well over a decade of interdisciplinary work about the "planetary boundaries" (Rockström et al. 2009, 2023) or the 'meta-issues' across the 2030 developments goals highlighted by the independent group of scientists' quadrennial Global Sustainable Development Report (Independent Group of Scientists 2019, 2023). The benefits of such 'Intersecting' knowledge strategies for multilateral policymaking are multiple, starting by

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<sup>4</sup> Among other, the Bridgetown Initiative promotes the creation of a global mitigation fund funded by a reform of the IMF's special drawing rights (SDRs).

providing numerous opportunities for research organizations and think-tanks across geopolitical boundaries to cooperate (Buchoud et al. 2021b, 2022, 2023).

The G7's strong scientific and innovative capabilities can play an important role in advancing global intellectual and technological leadership, including by building on rapidly developing AI capabilities, to invest in global research programs and research infrastructure. Besides in 2024, AI has been acknowledged as a field of common interest from both G20 Brazil and G7 Italy sides to support sustainable development (UNDP 2024).

In this context, the decision of the executive committee of the World Meteorological Organization (WMO) to create a new global infrastructure to precisely measure sources of GHG emissions, in particular carbon dioxide and methane could serve as a benchmark to develop large scale of smart-metering and real-time monitoring of climate transformation and related risks. This approach should integrate local communities and citizens, including indigenous peoples, to ensure all people can benefit from global research outcomes while effectively contributing to data gathering and the development of context-sensitive, sustainable solutions. Similarly, an initiative like TRACE can analyze “90 trillion bytes of data from more than 300 satellites, more than 11,000 sensors, and numerous additional sources of emissions information from all over the world” to measure GHG emissions in real time.<sup>5</sup>

In the future, the deployment of high-quality research infrastructure could apply at sea through the promotion of Ocean Deal Plus based upon the G7 Ocean deal from 2023. It could apply in space, building on the initiative of the G7 Italy to promote a new multilateral approach to the acceleration of space and lunar exploration by developed and emerging countries. It could apply on land, prioritizing an immediate support to research capabilities of monetary authorities (central banks) of small island countries and small vulnerable countries, in support of the development of an inclusive, green economy, such as on climate disclosure, climate accounting, and green taxonomies.

### **Opportunities to scale up smart metering**

The production of electricity is central to achieve decarbonization strategies globally and locally. Therefore, the G7 could formally endorse the 24/7 Carbon-Free Electricity Compact launched in 2021 and which has gained popularity since then but too slowly. It is an interesting, practical approach to the decarbonization of the global electric system by ensuring the possibility to access to clean and affordable electricity around the clock (Hausman and Bird 2023). It works by mobilizing private and public partners (utilities, regulating authorities, etc.) altogether.

24/7 carbon-free electricity zones could be created initially in large metropolitan areas and in selected areas in more rural and even remote regions. The G7 could propose other countries

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<sup>5</sup> See Climate TRACE website: *About the coalition*. <https://climatetrace.org/about>.

to test the benefits of such a approach, such as Nepal or Bhutan, which generate lots of their electricity from clean hydroelectric power would qualify as such. Additionally, 24/7 carbon-free electricity zones could be integrated within energy transition partnership (ETP) programs.

The development of smart-metering associated to the management of more complex electricity-grids could also provide new ways to promote energy savings and the overall development of smart grids in developing countries such as by financial incentives supporting households and micro-, small and medium-sized enterprises.

## **2.3 Refining the scenarios of elimination of inefficient fossil fuel subsidies**

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The G7 set an initial deadline to end inefficient fossil fuel subsidies by 2025 at its Ise Shima summit in Japan in 2016, but the objective has not been met. The Glasgow Climate Pact adopted in 2021 urged nations to phase-out inefficient fossil fuel subsidies, while offering targeted support to the poorest and most vulnerable, a commitment reiterated in the G7's Hiroshima Leaders' Declaration but very little progress was made in the past two years.

Recent research conducted by the IMF show that a global reform of energy pricing with the elimination of fossil fuel subsidies could yield huge economic benefits in the short term. For instance, in the East Asia and Pacific Region (EAP), which is responsible for more than 50 per cent of global GHG emissions, even a marginal reduction in these subsidies could significantly finance clean energy deployment (Black 2023). Yet, the elimination of such subsidies proves extremely complicated and politically very sensitive.

To maintain credibility in their pledges and engagements, G7 countries must provide a better definition of what they consider 'inefficient' subsidies. Such work should be conducted in a cooperative manner beyond G7 countries. At first, we argue that the G7 countries could promote five points shared agenda:

1. identifying how fossil fuel exploration, production, transportation, and consumption are subsidized in each G7 individual country;
2. exploring the critical obstacles preventing a rapid reduction / elimination of these subsidies;
3. ranking reduction / elimination pathways from the most to the least expensive for eliminating subsidies;
4. considering the implications of the pathways identified for energy security, fairness, and justice;
5. setting realistic targets concrete timelines for the elimination of fossil fuel subsidies;
6. a joint taskforce across the G7 Finance and Environment, Climate, Energy ministerials could be set up to report to the G7 every six months.

# Special focus 1. Improving climate disclosure to unlock private climate finance and support financial stability in Asia and worldwide

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by Sayuri Shirai and Agnes Surry

## 1. Presentation

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The Asian region includes a lot of GHG emitters and many countries highly vulnerable to climate change and faces huge financing gap to support climate action while its economic growth potential is high, and its population keeps growing. Asian countries are at diverse stage of development and implement diverse climate finance strategies. The region is therefore a relevant case to identify bottlenecks and discuss policy options to scale up climate finance globally. Overall, financial institutions and investors should have a better understanding of climate risks and transition plans to shape portfolios towards net-zero emissions. The standardization of climate-related disclosure is making major progress, and it fosters sustainable finance markets able to attract more private capital. Nevertheless, the disclosure approaches are diverse across countries even within Asia and across G7 countries. This undermines the benefit of interoperability of the global disclosure standards and obstructs the creation of a sustainable finance market. Using this example, this policy brief will focus on recommendations for G7 to strengthen climate related financial disclosure and scale up climate finance in emerging market and developing economies (EMDEs) and worldwide, including G7.

## 2. Supporting private climate finance scaling up with climate information disclosure

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Following the 2015 Paris Agreement goal of limiting the global average temperature rise to well below 2°C above preindustrial levels, and to aim for 1.5°C, many countries submitted their NDCs to the United Nations. The majority of countries have committed to achieving net-zero GHG emissions by around 2050 and the G7 agreed to globally advance and promote a green transformation, working together to realize transformation of G7 economies to reach GHG net zero by 2050 (G7 2023).

In 2023, the G7 also called on all parties whose 2030 NDC targets or long-term low GHG emission development strategies (LTSSs) are not yet aligned with a 1.5°C pathway and net zero by 2050 to revisit and strengthen the 2030 NDC targets, update their LTSSs as soon as possible and commit to peak global GHG emissions immediately and by no later than 2025. As part of this call, EMDEs, which face significant gaps between actual and targeted emission amounts and between actual and needed clean energy investment amounts, are critical. The EMDEs not only face budgetary and financial constraints reflecting growing public debt and lower credit rating positions, but also have limited access to decarbonization technology. Thus, G7 countries need

to collectively act not only to accelerate their own decarbonization efforts to meet their net zero emissions target, but also to support EMDEs to smoothen their transition to low carbon development.

Among EMDEs, Asia deserves a special focus, given that Asia accounts for over 50 per cent of GHG emissions (Azhgaliyeva and Rahut 2022). China, India, and Southeast Asia together are estimated to account for 70 per cent of the world's increase in electricity demand during 2023-2025 (IEA 2023b). In addition, Asia heavily relies on coal-fired power generation with an average operating life of coal fuel power plants being just around 14 years. This duration is much shorter than an around 45-year average in the US and Europe, suggesting the need to replace some emissions-intensive electricity facilities with cleaner ones before the full cost of investment can be recovered.

To reduce GHG emissions and achieve net zero targets by around 2050, all the committed countries, including G7 and EMDEs need to transform industries so that they become more environmentally sustainable and low carbon-intensive. They need to expand clean energy investments and promote research and development in decarbonization technology, implement new food production solutions, decarbonize and green the transport and building sectors, while implementing necessary comprehensive climate policies including carbon pricing and environmental regulations.

This comprehensive agenda requires redirecting private finance to accelerate sustainable finance. The global expansion of environmental, social, and governance (ESG) investment, which is a way to promote climate finance, is evident. However, it is concentrated within some developed countries, it is still not a confirmed trend in G7 economies and ESG practices are very diverse globally.

Many of the necessary investments, such as in clean energy, are expected to be undertaken by companies in the form of large-scale investment projects which, by far, exceed the capacity of public finance. To ensure this transformation takes place at scale, it is necessary for investors and financial institutions to allocate more funds to these activities. Thus, promoting climate-related disclosure in companies is essential to assess companies and their activities and ensure investors and financial institutions make adequate financing decisions to support the reduction of GHG emissions and net zero targets.

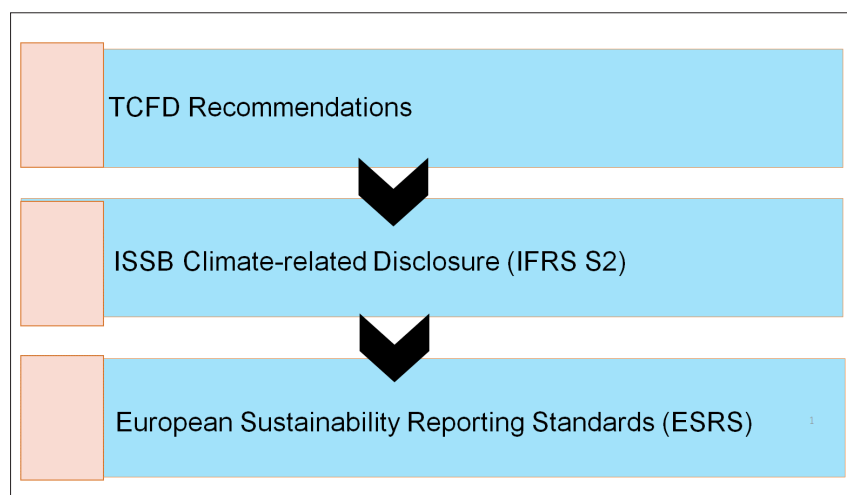
Corporate climate disclosure has the potential to provide more information on the potential risks associated with carbon-intensive companies and also on the new opportunities created by the transition. As companies increasingly face physical risks, transition risks, and associated litigation risks (liability risks), financial institutions including banks and investors financing those companies will face potential losses. Thus, they have to understand that their loans and investments provided to emission-intensive companies may become non-performing in the

future if those companies find it difficult to recover the costs of fixed asset investment – thus, making those assets stranded and lowering companies’ repayment capacity and returns. Furthermore, if a lot of financial institutions continue to finance such industries and companies, there is a risk that the stability of the financial system will be threatened. With corporate climate disclosure, financial institutions including banks and investors can also adjust their choice and make smarter investments supporting the necessary transition. Using Asia as an example, this policy brief emphasizes the merits of climate corporate disclosure, identifies its challenges and opportunities, and offers recommendations applicable to some G7 countries and the rest of the world.

### 3. Existing climate disclosure approaches and standards

Globally, there are many disclosure standards related to climate change and other sustainability issues developed by various public and private sector initiatives. Among them, this policy brief focuses on three disclosure standards: Task Force on Climate-related Financial Disclosure (TCFD) recommendations; International Sustainability Standards Board (ISSB) Climate-related Disclosure; and the European Sustainability Reporting Standards (ESRS) developed by the European Commission. The scope, content and status of climate information disclosure have evolved overtime (Figure 3).

**Figure 3** | Three important disclosure frameworks



1) *Task Force on Climate-related Financial Disclosure*: TCFD was established by the Financial Stability Board (FSB) in 2015 in response to the G20 decision. This initiative was formed to help correct market failure that results in underpricing of climate risks in financial and capital markets and thus inefficient financial allocation. The TCFD recommendations were released in 2017 and revised in 2021 (TCFD 2017, 2021) in order to provide more accurate, timely, standardized information on climate risks affecting companies to financial institutions and investors.

The TCFD disclosure framework is centered at promoting companies to identify and assess climate-related risks and opportunities that are material to their business operations, as well as disclose them as part of their annual financial reporting process (such as sustainability report, TCFD report, Integration report, etc.). Once companies identify climate-related risks and opportunities, possible impacts on corporate income statement (revenue, expenditure), and balance sheet (assets, liabilities) are suggested to be examined. The most important element of TCFD recommendations is the structure of disclosure based on the four pillars (Governance, Strategy, Risk Management, and Indicators & Targets). Companies are recommended to disclose information by this sequence. The Governance pillar discloses the corporate governance structure to cope with climate risks and opportunities including the board supervision and role of the management. The Strategy pillar describes the material climate risks and opportunities identified over the short, medium, and long term and their implications on the business models, strategies, and financial planning. Companies are also expected to include their transition plans and the climate scenario analysis. The Risk Management pillar describes the process of identifying, assessing, managing, and integrating climate risks into overall risk management. The Indicators & Targets pillar is the most important pillar since indicators and targets can be used by investors and financial institutions to assess companies and have meaningful engagement with companies.

While TCFD recommendations were increasingly accepted by many companies, the level of corporate disclosure associated to TCFD framework remains inadequate because TCFD is voluntary and because companies continue to choose diverse disclosure standards that does not support homogeneity and prevent comparability. In addition, disclosure of GHG emission data and GHG emission reduction targets remain partial, and this has led to a growing call from investors to develop global standardized corporate disclosure requirements.

2) *International Sustainability Standards Board Climate-related Disclosure*: Given this background, the ISSB was established by the International Financial Reporting Standards (IFRS) Foundation in November 2021 with strong worldwide support to provide timely, reliable, and comprehensive information. The ISSB published Sustainability Disclosure Standards, which are decomposed into the General Requirements for Disclosure of Sustainability-related Financial Information (IFRS S1) and Climate-related Disclosure (IFRS S2), in June 2023 after releasing the draft standards one year ago and revising them based on feedback derived from public consultation (ISSB 2023a, 2023b). IFRS S1 focuses on the sustainability-related risks and opportunities companies face over the short, medium, and long term, while IFRS S2 focuses on specific climate-related disclosures. TCFD recommendations were fully integrated to IFRS S2. Many countries are expected to adopt ISSB standards and make them mandatory at least for large publicly listed companies.

One significant difference between TCFD recommendations and ISSB Standards (IFRS S2) is the treatment of Scope 3 emissions data. Namely, the ISSB Standards encourage companies to disclose not only Scope 1 and 2, but also the entire value chain (upstream and downstream, Scope



3) GHG emissions for all companies while TCFD recommendation indicated disclosure of Scope 3 emissions data when those are material for companies. Disclosure of Scope 3 emission data can be delayed for one year due to the complexity of measuring emissions compared with Scope 1 and 2 emissions data. As companies may estimate Scope 3 emissions data based on various indirect data in addition to direct measurement of GHG emissions from suppliers, companies are required to disclose the measurement approaches, inputs, and assumptions used and prioritize on using verified data. Moreover, the ISSB Standards require companies to disclose GHG emission data using an absolute amount (metric tonnes of CO<sub>2</sub> equivalent) rather than the intensity indicator (such as GHG emissions divided by output or sales). The absolute emissions data are more preferable and stringent than intensity-based emissions data since the former could clearly show the degree of contributions to GHG emissions reduction.

Regarding GHG emissions targets, the ISSB Standards involve both the quantitative and qualitative targets used to monitor progress toward achieving goals including GHG emission targets. However, companies using net GHG emission targets are required to disclose gross GHG emissions targets as well as offsetting measures. This requirement aims at clarifying a company's own emissions reduction efforts without depending excessively on meeting its GHG emission target by purchasing carbon credits from third parties. Information about the extent that the company plans to use carbon credit to meet GHG emissions target should be provided. Companies shall provide information about approaches to setting and reviewing each target and monitoring progress against each target. For example, information on whether the target and the methodology for setting the target have been validated by a third party, how the process of reviewing the target is made, what metrics are used to monitor progress towards reaching the target, and whether revisions to the target should be provided.

3) *European Sustainability Reporting Standards*: ESRS is expected to exert substantial impacts not only on all large and listed companies and small and medium-sized enterprises (SMEs) in the EU but also foreign companies that have significant exposure to EU market. Under the Corporate Sustainability Reporting Directive (CSRD) that entered into force in 2023, companies that meet certain criteria have to disclose a wide range of ESG indicators in a phased manner. A detailed description on disclosure requirements is provided by ESRS. All ESG related disclosure and data are subject to a materiality assessment, but a materiality assessment is required to be performed more rigorously in EU than in other economies because the materiality assessment process is subject to external assurance. With regards to GHG emissions data and reduction targets, more detailed and comprehensive disclosure requirements are set under ESRS as compared with TCFD recommendations and ISSB standards.

#### **4. Level of development and utilization of climate disclosure standards in Asia**

Asia is projected to have the largest growth in global GHG emissions (ADB 2023). Meeting the demand for electricity and transitioning from coal-fired power plants to renewable energy

sources poses significant challenges for economies. In order to achieve its energy transition objectives, meet the GHG emission reduction targets, and attain carbon neutrality by 2050 or a little later, Asia requires substantial financial investment in clean energy and low-carbon technology initiatives. The private sector plays a crucial role in expanding these investments and expediting the journey towards carbon neutrality.

Many economies in Asia are aware of the need to increase clean energy and decarbonize their economies as soon as possible. Given limited domestic public and private financial resources, some EMDEs in the region have already started to promote capital inflows from developed economies. To do so, some regulators have taken critical steps to improve climate corporate disclosure while the focus on this instrument is less strong in other Asian countries. At the same time, adopting ISSB Standards is complex and takes time especially while some Asian economies are not familiar with TCFD recommendations. Overall, the development of climate disclosure standards does not follow an homogeneous trend and economies are taking different directions. Many of these economies have adopted other prevailing disclosure frameworks such as Global Reporting Initiative (GRI) Standards for instance. Meanwhile, some Asian economies, such as Hong Kong, China, Japan, and Singapore are familiar with TCFD recommendations and many companies have been accustomed to disclosing some information based on them. Some economies have already scheduled to make them mandatory. Thus, the degree of understanding and utilization of the global standards varies among economies.

Moreover, the existing standards include a lot of technicalities – such as Scope 1 GHG emissions (direct emissions), Scope 2 emissions (for example, direct emissions from purchased electricity), and Scope 3 emissions (emissions from suppliers and users) – which are not easy to understand. Finally, given limited access to data, the implementation of data disclosure may take time. These challenges and divergence in approaches in Asia leads to some fragmentation that may be detrimental to an overall scale of climate finance while the needs are important in the region.

## **5. Policy recommendations for Asia and worldwide including G7**

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To promote regional and global standardization of corporate climate disclosure and eventually scale up climate finance and promote financial stability, exchanging information and promoting cooperative actions are critical. Promoting reliable, comparable, and consistent corporate climate-related data disclosure and reporting should be recognized as a foundation for evaluating and monitoring climate-related financial risks (Shirai 2023a, 2023b). This, in turn, can contribute to safeguarding long-term financial stability by raising awareness of climate-related financial risks among financial institutions and fostering the growth of sustainable finance markets resulting from increased trust from investors and financial institutions.

To expedite this process, it is crucial for governments to encourage companies to disclose accurate GHG emission data, emissions reduction, and net zero targets, and other climate-

related information in alignment with the TCFD recommendations and the ISSB Standards with a phased approach, from voluntary to mandatory actions, and a growing scope from public and/or listed companies to non-listed companies and increasing number of items to be disclosed.

First, countries that have not yet initiated climate-related disclosure for companies and financial institutions within their jurisdiction should publicly endorse the TCFD recommendations and the ISSB climate-related disclosure standards (IFRS S2). Then, they should encourage large companies and financial institutions to voluntarily disclose information in line with the TCFD recommendations, following a principle-based approach and reporting on a “comply or explain” basis. As companies become more familiar with climate disclosure and reporting practices, such TCFD requirements should become mandatory. Since ISSB (IFRS S2) requires more comprehensive and detailed disclosure, initial efforts of promoting corporate disclosure can be targeted towards large companies that are already familiar with the TCFD recommendations. Later, transition toward IFRS S2 should be encouraged. For countries that have already been encouraging companies and financial institutions to disclose based on the TCFD recommendations, expediting the process of aligning climate disclosure with the ISSB (IFRS S2) standards should be prioritized. Gradually, disclosure requirements should be extended to unlisted companies with specific timeline and potential adjustments in the disclosure requirements to strike a balance between the benefits and burdens associated with disclosure for these entities.

Finally, because raising awareness, exchanging information, developing capacities, sharing best practices and promoting cooperative actions are critical, advanced economies, including G7, and their regulators should provide technical assistance to develop capacities of EMDEs’ financial regulators and supervisors to promote the importance of climate-related corporate disclosure. In particular, Scope 3 emissions data require a lot of time and invested resources since the measurement require primary and/or secondary data and engagement with suppliers is critical.

The Asian Development Bank Institute (ADBI), in collaboration with the Asian Development Bank (ADB), launched a new initiative to promote policy actions by governments, financial regulators, and central banks to facilitate the understanding of climate-related information disclosure. It provides a platform for information sharing between regulators involved in climate finance through a series of roundtables and capacity-building workshops. The platform includes key information, such as the implementation of the International Sustainability Standards Board standards, Scope 3 emission disclosure, climate stress testing, climate scenarios, taxonomies, and others.

Policy makers also need to consider improving data and information infrastructure including detailed and frequently updated emissions coefficients, utility companies’ emissions data, and other environmental data. Establish firm-level disclosure will be the foundation for advancing data compilation and aggregation, as well as regulatory and supervisory practices and tools to eventually scale up climate finance and support net zero transition in Asia and worldwide.

## Special focus 2. A global call for action for the blue economy: Proposals for a G7 roadmap for sustainable ocean financing

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by Michael C. Huang

### 1. Presentation

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The Earth's vast oceans, covering over 70 per cent of its surface, are a critical natural resource alongside soils and forests, forming the foundation of global natural capital. Within this aquatic realm, essential ecosystem goods and services sustain life and underpin human well-being globally. Developing the ocean economy in harmony with people, the planet, and prosperity is paramount for establishing sustainability. The High-Level Panel for a Sustainable Ocean Economy emphasizes numerous unquantified impacts on environmental, social, and health benefits, demanding attention from G7 policymakers. Present barriers to financing sustainable ocean ventures stem from market dynamics, financial risks, and knowledge gaps. Overcoming these challenges is crucial for G7 nations to facilitate a sustainable ocean economy. Strategic opportunities include establishing stable regulatory environments, fortifying knowledge, and capacity, redirecting public investment, implementing sustainable investment principles, revolutionizing insurance approaches, deploying investment tools, and fostering public-private partnerships. Collaboration among G7 think tanks promises to consolidate partnerships, creating a conducive environment for sustainable ocean financing, and steering towards a resilient global ocean economy.

### 2. Background context

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The sustainability of our oceans is a global imperative that demands urgent action. As we approach the UN Ocean Conference in Nice, France in June 2025, which could launch effective measures for action on climate change from the ocean with the following three pillars: 1) enhancing ratification for all ocean-related activities ensures comprehensive governance and accountability; 2) promoting advancements in ocean science through funding research fosters innovation, and 3) strengthening ocean finance and investment, embracing Sustainable Blue Economy Finance Principles, encourages impactful investments and partnerships.

To accommodate the inter-governmental and disciplinary collaboration, the G7 nations must take the lead in capitalizing on the blue economy. This policy brief outlines essential actions for sustainable ocean financing, leveraging innovative models and collaborative partnerships to drive progress. The challenges of sustainability, particularly in the Asia-Pacific region, require comprehensive solutions that transcend marine considerations. Deepening dialogue between multinational Development Banks, investors, ventures, and academia is crucial for addressing these complex challenges effectively.

Among many ocean financing measures, Blue Impact Finance initiatives prioritize collaboration between ventures, research institutions, and governments to realize sustainable ocean utilization (Sumaila et al. 2021). Cross-industry collaboration and international cooperation are crucial for creating accessible environments for ocean investments. Japan emphasizes collaboration and innovation in marine industries for a sustainable future. Blue Impact Finance (BIF) initiatives indicate significant growth opportunities, with the global ocean-based industry's value anticipated to double by 2030. However, challenges persist, especially in local fisheries, necessitating policy intervention and private sector involvement. Initiatives like the Blue Finance Accelerator Program in Indonesia provide support for startups and SMEs, driving innovation and impact measurement strategies.

### 3. Taking action

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*Establishing effective and stable regulatory and policy environments to attract investment and funding:* Building a robust ocean governance system requires a common understanding of shared economies and the interconnectedness between economies and the impacts of climate change. Sustainability challenges on a global scale demand comprehensive perspectives, transcending marine considerations and necessitating long-term solutions.

- Developing regulatory frameworks tailored to foster a positive cycle linking ocean-linked industries with the finance sector, ensuring clarity, consistency, and alignment with international sustainability goals (Shiiba et al. 2022).
- Implementing policies that incentivize climate-resilient investments, such as tax breaks, subsidies, and preferential treatment for projects incorporating adaptation measures.
- Fostering transparency and accountability in regulatory processes to enhance investor confidence and reduce uncertainty, thereby encouraging greater participation in climate adaptation initiatives within the ocean economy.

*Fortifying knowledge, data, and human capacity:* The Sustainable Blue Economy Finance Principles proposed by UNEP serve as a foundational framework for financing the ocean economy, guiding banks, insurers, and investors towards sustainability (UNEP 2018) in ocean-based sectors through inclusive partnerships and science-led measurement. To further support this framework and promote sustainable blue finance:

- Invest in research and data collection efforts to better understand the impacts of climate change on ocean ecosystems, coastal communities, and related economic activities.
- Develop training programs and capacity-building initiatives to enhance the skills and expertise of professionals in the blue finance sector, including policymakers, investors, and project developers.
- Establish knowledge-sharing platforms and networks to facilitate the exchange of best practices, lessons learned, and innovative solutions for climate change adaptation in the ocean economy.

*Increasing and redirecting public investment toward the sustainable ocean economy:* The recent surge in blue victories globally underscores a growing momentum for ocean health, signaling a shift in policies towards new business models. To drive this transformation towards a sustainable blue economy model, strategic investments in innovative technologies, data, and business models are essential. Recommendations to support this transition include:

- Allocate additional public funds to bolster climate-resilient ocean industries, including renewable energy, coastal protection, and marine conservation.
- Redirect subsidies and financial incentives from environmentally harmful activities towards initiatives that promote climate adaptation and mitigation within the ocean economy.
- Prioritize public spending on infrastructure projects that enhance the resilience of coastal communities and ecosystems to the impacts of climate change, such as resilient coastal infrastructure and restoration of natural habitats.

*Implementing shared rules and principles defining sustainable investments:* Europe's SWEN Capital Partners advocate for transformative innovation in ocean-impacting industries, spearheading the call for the creation of 1000 Ocean Startups to drive critical innovations for ocean health. Supporting frameworks such as SWAN's Blue Ocean Fund empower institutional financiers to transition towards a regenerative blue economy, prioritizing impact measurement and collaboration. To further these efforts, the development of good examples and best practices, alongside investments in data, technology, marine environment conservation, and S2G (Sea to Global) capital, are crucial. Ocean finance serves as the linchpin in leading innovation to disrupt monopolistic situations. Recommendations to advance these initiatives include:

- Developing internationally recognized standards and guidelines for assessing the sustainability of investments in the ocean economy, integrating climate resilience criteria into investment decision-making processes.
- Establishing certification schemes and accreditation mechanisms to validate compliance with sustainable investment principles, offering assurance to investors.
- Fostering collaboration among stakeholders to harmonize regulatory frameworks and ensure consistent application of sustainable investment principles across jurisdictions, thereby reducing barriers to climate-resilient investments in the ocean economy.

*Revolutionizing insurance approaches to de-risk the sustainable ocean economy:* Although data limitations hindered a comprehensive assessment of all benefits and costs, analyses indicate that taking actions to transform ocean sectors will yield benefits far surpassing costs, particularly when considering the indirect environmental and public health benefits (Konar and Ding 2020). To address these challenges and capitalize on opportunities:

- Innovating insurance products and risk management strategies tailored to the unique challenges of climate change adaptation in the ocean economy, such as parametric insurance for extreme weather events and ecosystem-based insurance for natural infrastructure.
- Integrating climate risk assessment tools and data analytics into insurance underwriting processes to enhance understanding and mitigation of climate-related risks associated with

ocean investments.

- Collaborating with governments, insurers, and stakeholders to establish public-private insurance partnerships that incentivize climate-resilient practices and offer financial support for adaptation initiatives in the ocean economy.

*Deploying tools and policies to augment investment:* The Ocean Impact Navigator (OIN)<sup>6</sup> emerges as a crucial tool for measuring and reporting impact within the ocean impact innovation ecosystem. By evaluating both the use and non-use values of marine resources, the OIN aids governments, investors, and enterprises in decision-making processes. Standardizing impact measurement enhances transparency and accountability, propelling advancements in sustainable ocean financing for both incubator and accelerator funds. Recommendations to bolster these efforts include:

- Introducing financial instruments and incentives to mobilize private investment in climate adaptation projects within the ocean economy, such as green bonds, climate resilience funds, and impact investment vehicles.
- Implementing carbon pricing mechanisms and other market-based instruments to internalize the costs of climate change, thereby incentivizing low-carbon, climate-resilient investments in the ocean economy.
- Supporting the development of innovative financing mechanisms, such as blended finance arrangements and pay-for-performance models, to leverage public and philanthropic capital and stimulate private investment in climate adaptation initiatives within the ocean economy.

*Fostering private-public partnerships (PPP) to catalyze the flow of imperceptible ocean deals:* Partnerships fostered with government backing advocate for public-private partnership approaches and risk-sharing mechanisms, breaking barriers in the global social innovation system. Highlighting notable cases such as Oceanium – an UK-based venture, which showcases innovative seaweed refinery technology, underscores the importance of sustainable resource management in addressing climate change challenges. Oceanium’s focus on maximizing the value of seaweed in the blue bio-economy emphasizes the necessity of rigorous impact measurement and government support for driving sustainable practices. To further advance such collaborative efforts:

- Facilitating collaboration between governments, private sector entities, and civil society organizations to identify and develop climate adaptation projects in the ocean economy.
- Creating conducive environments and incentives for private sector engagement in climate-resilient investments, including risk-sharing agreements, co-financing arrangements, and regulatory reforms.
- Cultivating trust and alignment of interests among stakeholders through transparent communication, stakeholder engagement, and inclusive decision-making processes, fostering the partnerships essential for unlocking financing for climate adaptation initiatives in the

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<sup>6</sup> See 1000 Ocean Startups website: *Ocean Impact Navigator*: <https://www.1000oceanstartups.org/navigator>.



ocean economy.

## 4. The way forward

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The G7 nations play a crucial role in harnessing the potential of the blue economy and promoting sustainable ocean financing. By prioritizing the ratification of international agreements, championing advancements in ocean science, and bolstering financial mechanisms, the G7 can spearhead the path towards a resilient and prosperous future for our oceans. Through collaborative efforts, innovative approaches, and strategic investments, we can unlock the full potential of the blue economy while ensuring the preservation of marine ecosystems for the well-being of present and future generations.

## Conclusion

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The G7 has faced in recent years recurrent critics -starting from within G7 countries themselves, for the lack of fulfillment of its own climate pledges and the deficit of accountability of the promises taken by each presidency. G7 countries should even more avoid any unilateral positioning as the calls for more effective climate justice are multiplying, including through global initiatives calling for a deep reform of the global financial architecture and the governance of multilateral institutions. Incidentally, the calls to move towards a 'war economy' across the G7 countries could bear risks of contradicting the support to a robust, creative, and peaceful environmental diplomacy.

Addressing global system transformation has become extremely complex and governments need support from research and policy organizations. The G7 can invest in realistic ways to take effective action 1) through the development of global research infrastructure and 2) the promotion of joint multilateral support to most vulnerable countries. G7 countries can also take the lead to 3) refine scenarios of elimination of fossil fuel subsidies within the G7 and beyond, and 4) to scale up innovative value proposals with local levels of government and public and private partners, such as the 24/7 Carbon-Free Electricity Compact, provided this comes with transparent and regular assessments.

The G7 can also play a more proactive catalytic role to reform the global financial architecture, especially by leveraging the financial inclusion potential of climate disclosure, yielding a global on the development and availability of climate finance. Such transformations should target not only land, but also sea and therefore, it is as important to improve the conditions of ocean's sustainable financing. Several initiatives have been launched in the past years, which could also be catalyzed by a stronger engagement of the G7 in support of an Ocean deal, as showcased during the G7 Japan in 2023.

However, continued and enhanced support for middle- and low-income countries to get access to climate finance at scale should be even more a priority for G7 countries, considering the current rearticulation of multilateral climate and energy talks across the G20 and the troika of climate COP secretariats by the UAE (2023), Azerbaijan (2024) and Brazil (2025). Together with international financial institutions, think-tanks can play a catalytic role to support effective and enduring dialogue across geopolitical spheres and ensure continuity of the tangible progress made in the past couple of years in such matters, provided they can also improve the connection with other engagement groups in the G7/G20, such as the youth, business, and civil society groups.

## References

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ADB. 2023. *Asia in the global transition to net zero: Asian Development Outlook 2023 thematic report*. <https://www.adb.org/node/873211>

APEC. 2023. *Peru spotlights social dimension for its APEC 2024 priorities*. <https://www.apec.org/press/news-releases/2023/peru-spotlights-social-dimension-for-its-apec-2024-priorities>

Azhgaliyeva, Dina and Rahut, Dil B., eds. 2022. *Climate change mitigation: Policies and lessons for Asia*. Tokyo: ADBI. <https://doi.org/10.56506/OJYG4210>

Barbados. 2022. *Urgent and decisive action required for an unprecedented combination of crises: The 2022 Bridgetown Initiative for the reform of the global financial architecture*. <https://pmo.gov.bb/wp-content/uploads/2022/10/The-2022-Bridgetown-Initiative.pdf>

Black, Simon, et al. 2023. IMF fossil fuel subsidies data: 2023 update. *IMF Working Papers* 2023/169. <https://www.imf.org/en/Publications/WP/Issues/2023/08/22/IMF-Fossil-Fuel-Subsidies-Data-2023-Update-537281>

BRICS. 2023. *XV BRICS Summit Johannesburg II declaration*. <http://www.brics.utoronto.ca/docs/230823-declaration.html>

Buchoud, Nicolas J.A., et al. 2021a. Building a new sustainable economy: Investing in infrastructure for distribution and well-being. *T20 Policy Briefs*. <https://www.t20italy.org/?p=9175>

Buchoud, Nicolas J.A., et al., eds. 2021b. *Intersecting: Sustainable responses to the Covid-19 pandemic* 1-6 (and other volumes 7-11, 2022-2023), <https://www.global-solutions-initiative.org/?p=41961>

Civil7. 2024. *C7: important signals, but still too much gas in the G7 Climate, Energy and Environment communiqué*. <https://civil7.org/news/2312>

Chaudhury, Dipanjan Roy. 2023. India partners with Germany to deliver development projects in Benin, Cameroon, Ghana, Malawi and Peru. *The Economic Times* 3 November. <https://economictimes.indiatimes.com/articleshow/104936541.cms>

China Ministry of Foreign Affairs. 2023. *Steering the wheel of China-U.S. relations and piloting Asia-Pacific cooperation*. [https://www.fmprc.gov.cn/eng/wjdt\\_665385/zyjh\\_665391/202312/t20231204\\_11194322.html](https://www.fmprc.gov.cn/eng/wjdt_665385/zyjh_665391/202312/t20231204_11194322.html)

Coordination Sud. 2024. *800 millions d'euros en moins pour l'aide publique au développement ?*. <https://www.coordinationsud.org/?p=1286051>

Diffenbaugh, Noah S., and Barnes, Elizabeth A. 2023. Data-driven predictions of the time remaining until critical global warming thresholds are reached. *PNAS* 120(6): e2207183120. <https://doi.org/10.1073/pnas.2207183120>

Drugmand, Dana. 2023. Corporate promotion of carbon capture and storage contradicts science, study finds. *DeSmog Blog* 30 November. <https://www.desmog.com/?p=63621>

ECMWF. 2023. Global temperature exceeds 2°C above pre-industrial average on 17 November. *Copernicus Climate Change Service*. <https://climate.copernicus.eu/node/1876>

ECMWF. 2024. *Global temperature trend monitor: Application*. <https://cds.climate.copernicus.eu/cdsapp#!/software/app-c3s-global-temperature-trend-monitor?tab=app>

Fleming, Sean. 2021. What's the difference between 1.5 and 2 degrees of global warming?. *World Economic Forum* 28 July. <https://www.weforum.org/agenda/2021/07/2c-global-warming-difference-explained>

G7. 2023. *G7 Climate, Energy and Environment ministers' communiqué*. <https://www.env.go.jp/content/000128270.pdf>

G20. 2023. *G20 New Delhi leaders' declaration*. <https://europa.eu/!4RCWc9>

Hausman, Natte, and Bird, Lori. 2023. The state of 24/7 carbon-free energy: Recent progress and what to watch. *WRI Insights* 5 May. <https://www.wri.org/node/103126>

Hill, Alice C., and Babin, Madeline. 2021. Why climate finance is critical for accelerating global action. *CFR In Briefs* 18 May. <https://www.cfr.org/node/234805>

IEA. 2023a. *Fossil fuels consumption subsidies 2022*. <https://www.iea.org/reports/fossil-fuels-consumption-subsidies-2022>

IEA. 2023b. *Scaling up private finance for clean energy in emerging and developing economies*. <https://www.iea.org/reports/scaling-up-private-finance-for-clean-energy-in-emerging-and-developing-economies>

IEA. 2024. *Renewables 2023: Analysis and forecast to 2028*. <https://www.iea.org/reports/renewables-2023>

Independent Group of Scientists. 2019. *The future is now: Science for achieving sustainable development*. <https://sdgs.un.org/gsdr/gsdr2019>

Independent Group of Scientists. 2023. *Global sustainable development report 2023: Times of crisis, times of change: Science for accelerating transformations to sustainable development*. <https://sdgs.un.org/gsdr/gsdr2023>

IPCC. 2023. *Climate change 2023: Synthesis report*. <https://doi.org/10.59327/IPCC/AR6-9789291691647>

ISSB. 2023a. *IFRS S1 general requirements for disclosure of sustainability-related financial information*. <https://www.ifrs.org/issued-standards/ifrs-sustainability-standards-navigator/ifrs-s1-general-requirements>

ISSB. 2023b. *IFRS S2 climate-related disclosures*. <https://www.ifrs.org/issued-standards/ifrs-sustainability-standards-navigator/ifrs-s2-climate-related-disclosures>

Konar, Manaswita, and Ding, Helen. 2020. *A sustainable ocean economy for 2050: Approximating its benefits and costs*. Washington: High Level Panel for a Sustainable Ocean Economy. <https://oceanpanel.org/publication/a-sustainable-ocean-economy-for-2050-approximating-its-benefits-and-costs>

Lakhani, Nina. 2023. \$700m pledged to loss and damage fund at Cop28 covers less than 0.2% needed. *The Guardian* 6 December. <https://www.theguardian.com/p/pfn7h>

Messa, Paolo, and Mezran, Karim. 2024. Italy's G7 presidency can be a breakthrough for the 'West' and the 'Rest'. *New Atlanticist* 31 January. <https://www.atlanticcouncil.org/?p=730600>

NASA. 2023. *NASA study reveals compounding climate risks at two degrees of warming*. <https://climate.nasa.gov/news/3278>

OECD. 2023. *Climate finance provided and mobilised by developed countries in 2013-2021*. <https://doi.org/10.1787/e20d2bc7-en>

Oxfam. 2023. *Climate finance shadow report 2023: Assessing the delivery of the \$100 billion commitment*. <https://doi.org/10.21201/2023.621500>

Paviotti, Irene, and Fattibene, Daniele. 2023. A development agenda for the 2024 Italian G7 presidency. *IAI Commentaries* 23|30, <https://www.iai.it/en/node/17176>

Reuters. 2023. US renewable energy capacity could triple in 10 years on IRA boost: Wood Mackenzie. *Reuters* 13 September. <https://www.reuters.com/sustainability/climate-energy/us-renewable-energy-capacity-could-triple-10-years-ira-boost-wood-mackenzie-2023-09-13>

Richards, Julie-Anne, et al. 2023. *Standing in solidarity with those on the frontlines of the climate crisis: A loss and damage package for the COP28*. Loss and Damage Collaboration. <https://www.lossanddamagecollaboration.org/publication/standing-in-solidarity-with-those-on-the-frontlines-of-the-climate-crisis-a-loss-and-damage-package-for-cop-28>

Rockefeller Foundation. 2022. *The Global South Impact Community presents public statement to G20 leaders at the T20 Summit, Indonesia*. <https://www.rockefellerfoundation.org/?p=53888>

Rockefeller Foundation. 2023. *Think7 and Think20 leaders launch a shared agenda for global cooperation*. <https://www.rockefellerfoundation.org/?p=61109>

Rockström, Johan et al. 2009. Planetary boundaries: Exploring the safe operating space for humanity. *Ecology and Society* 14(2): art32. <http://www.ecologyandsociety.org/vol14/iss2/art32>

Rockström, Johan et al. 2023. Safe and just Earth system boundaries. *Nature* 619: 102-111. <https://doi.org/10.1038/s41586-023-06083-8>

Shiiba, Nagisa, et al. 2022. How blue financing can sustain ocean conservation and development: A proposed conceptual framework for blue financing mechanism. *Marine Policy* 139: 104575. <https://doi.org/10.1016/j.marpol.2021.104575>

Shirai, Sayuri. 2023a. Enhancing the credibility of corporate climate pledges: Bringing climate transition plans and climate scenario analysis into the mainstream. *ADB Working Papers* 1415. <https://doi.org/10.56506/EYOM7797>

Shirai, Sayuri. 2023b. Promoting sustainable finance and financial stability through climate-related corporate disclosure in Asia. *ADB Policy Briefs* 2023-12. <https://doi.org/10.56506/>

SGWH3542

Stern, Nicholas. 2020. Financing climate ambition in the context of COVID-19. *Grantham Institute Commentaries* 4 May. <https://www.lse.ac.uk/granthaminstitute/?p=49687>

Sumaila, U. Rashid, et al., 2021, Financing a sustainable ocean economy. *Nature Communications* 12: 3259. <https://doi.org/10.1038/s41467-021-23168-y>

Think7. 2024. *T7 Japan communiqué*. <https://think7.org/?p=396123>

TCFD. 2017. *Recommendations of the Task Force on Climate-related Financial Disclosures*. <https://assets.bbhub.io/company/sites/60/2021/10/FINAL-2017-TCFD-Report.pdf>

TCFD 2021. *What's new in 2021: Overview of 2021 progress, status report, and updated guidance*. <https://assets.bbhub.io/company/sites/60/2021/10/TCFD-Whats-New-in-2021-Webinar.pdf>

Tollefson, Jeff. 2021. IPCC climate report: Earth is warmer than it's been in 125,000 years. *Nature* 596: 171-172. <https://doi.org/10.1038/d41586-021-02179-1>

UNDP. 2024. *G7 consensus reached on advancing AI for sustainable development*. <https://www.undp.org/node/453731>

UNEP. 2018. *The sustainable blue economy finance principles*. <https://www.unepfi.org/?p=31826>

UNFCCC. 2023. *COP28 agreement signals "beginning of the end" of the fossil fuel era*. <https://unfccc.int/news/cop28-agreement-signals-beginning-of-the-end-of-the-fossil-fuel-era>

WMO. 2024. *WMO confirms that 2023 smashes global temperature record*. <https://wmo.int/node/22459>

Yoder, Kate. 2023. Why are BP, Shell and Exxon suddenly backing off their climate promises. *GRIST* 16 February. <https://grist.org/economics/bp-exxon-shell-backing-off-climate-promises>

## About Think7

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Think7 (T7) is the official think tank engagement group of the Group of 7 (G7). It provides research-based policy recommendations for G7 countries and partners. The Istituto Affari Internazionali (IAI) and Istituto per gli Studi di Politica Internazionale (ISPI) are the co-chairs of T7 under Italy's 2024 G7 presidency.