



# COP28 Achievements and Future Challenges

—Need for bigger reduction targets and accelerated  
implementation of concrete measures —

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## <Summary>

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- ◆ The 28th Conference of the Parties (COP28) to the United Nations Framework Convention on Climate Change (UNFCCC) took place in Dubai, United Arab Emirates (UAE) in November-December this year, and the final decision package, the “UAE Consensus,” was adopted with a unanimous vote.
- ◆ Specific achievements included the announcement of the outcome of the Global Stocktake, which assesses the status of efforts worldwide to address climate change, and the establishment of a new “loss and damage” fund. The UAE Consensus (the final document) includes the targets of tripling renewable energy capacity and doubling energy efficiency by 2030, and talks about accelerating the transition away from fossil fuels.
- ◆ Meanwhile, pledged contributions to the “loss and damage” fund only amount to around US\$800 million, and no significant progress was made with providing financial support to developing countries for adaptation and mitigation. In addition, the UAE Consensus did not contain any clear statements about timelines for reducing coal-fired power generation.
- ◆ In light of the achievements of COP28 and the issues still unaddressed, Japan and other countries will need to take the following actions:
  - 1) **Strengthen multifaceted support for developing countries:** Disasters caused by global warming are becoming more serious every year, making the provision of more assistance to developing countries vulnerable to climate change an urgent task. And support needs to go beyond just financial assistance. It must be multifaceted,

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encompassing disaster prevention technology transfer and human resource development.

**2) Increase reduction targets and accelerate implementation of concrete measures:** It will be difficult to achieve the goals of the Paris Agreement with the current targets of each country. Emission reduction targets will need to be increased based on the Global Stocktake. In addition, noticeable delays in reducing greenhouse gas emissions are evident, necessitating that each country accelerate concrete measures such as expanding renewable energy and reducing fossil fuels to achieve their goals.

**3) Tolerate diverse approaches:** Although the focus of discussion on climate change measures will shift to concrete measures in the future, international agreement on concrete measures will not be easily reached. Countries will need to explore decarbonization approaches that are appropriate for them, while leveraging international cooperation through coalitions of like-minded countries. And if a variety of approaches are allowed, it will also be necessary to establish a mechanism to evaluate and verify each country's efforts on an individual basis.

- This is an English version of “COP28 の成果と今後の課題 — 求められる削減目標引き上げと具体策の加速 —” in JRI Viewpoint (The original version is available at <https://www.jri.co.jp/MediaLibrary/file/report/viewpoint/pdf/14677.pdf>)

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## 1. Introduction

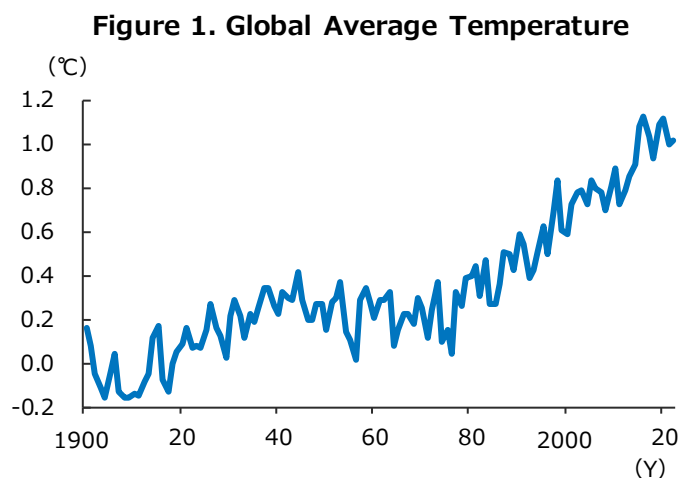
The 28th Conference of the Parties (COP28) to the United Nations Framework Convention on Climate Change (UNFCCC) took place in Dubai, United Arab Emirates (UAE) in November-December this year. In recent years, extreme weather events caused by global warming have been occurring frequently around the world, yet global greenhouse gas (GHG) emissions reached a record high in 2022, illustrating that not enough progress is being made with efforts to cut emissions. Against this backdrop, attention was focused on the extent to which COP28 could deliver an agreement on measures to cope with extreme weather events caused by global warming and on efforts toward decarbonization.

This paper provides an overview of the status of climate change issues in recent years, summarizes the outcomes of COP28 and the issues still unaddressed, and considers the action that Japan and other countries will need to take in the future.

## 2. Status of climate change issues in recent years: Global warming advancing but emission reduction not advancing

### (1) Entering a “global boiling” era

The United Nations Intergovernmental Panel on Climate Change (IPCC), in its Sixth Assessment Report released in 2021-22, declared that there is no doubt that human activities are contributing to global warming, stated that the global average temperature for 2011-20 had already increased by +1.1°C compared to the pre-industrial era, and pointed out that widespread and rapid changes in the earth’s environment have become visible. The global average temperature has indeed been rising continuously (Figure 1), and extreme weather events are occurring frequently in many parts of the world. And 2023 has already seen the highest global average temperature ever recorded, resulting in serious damage across the world, such as large-scale wildfires in Canada and Greece and a record drought along the Amazon River in Brazil. In Japan, too, the number of days with a high of 30°C was the highest on record in various parts of the country. In July this year, United Nations Secretary-General Antonio Guterres sounded the alarm, warning that “the era of global warming has ended” and “the era of global boiling has arrived.”



Source: Prepared by JRI based on data from the Japan Meteorological Agency  
 Note: Difference from average in 1891-1899

Against this backdrop, damage from phenomena such as extreme weather events (loss and damage<sup>1</sup>) is on the rise, and the Adaptation Gap Report issued by the United Nations Environment Programme (UNEP) in November<sup>2</sup> cautioned that the amount of damage caused by climate change in vulnerable areas has exceeded US\$500 billion in the last 20 years and will soar in the future unless countermeasures are taken.

## (2) Emission reduction not advancing

With global warming continuing to advance, the Paris Agreement, which was signed at COP21 in 2015, set a goal of “substantially reducing global greenhouse gas emissions to hold global temperature increase to well below 2°C above pre-industrial levels and pursuing efforts to limit it to 1.5°C above pre-industrial levels.” The Agreement required all parties, including developing countries, to determine GHG emission reduction targets (NDCs<sup>3</sup>), and with this the world as a whole began to move toward decarbonization (Table 1). Subsequently, in 2018, the IPCC stressed the importance of limiting the temperature increase to +1.5°C

(referred to as the “1.5°C target”) in its Special Report on Global Warming of 1.5°C. This spurred widespread moves, mainly among advanced countries, to aim for decarbonization by 2050, as this would be essential if the 1.5°C target were to be achieved. This was a significant development, as the Paris Agreement had only required the parties to “pursue efforts” to limit warming to +1.5°C. Then, at COP26, which was held in the U.K. in 2021, the importance of the 1.5°C target was mentioned in the final package of decisions (Glasgow Climate Pact), indicating that the world as a whole, including developing countries, had taken a first step toward 2050 decarbonization. And coinciding with COP26, high-emitting developing countries such as India, the world's third largest GHG emitter, and Russia, the fourth largest emitter, also set target years for decarbonization. At COP27, held in Egypt in 2022, the importance of the 1.5°C target was reiterated in the final decision package (Sharm El Sheikh Implementation Plan).

However, despite targets for decarbonization being set by countries around the world, GHG emissions continue to rise. According to the Emissions Gap Report released in November of this year by the United Nations Environment Programme (UNEP)<sup>4</sup>, GHG emissions in 2022 increased 1.2% from the previous year to

**Table 1. Key Outcomes of Past COPs**

COP21 (2015)	<ul style="list-style-type: none"> <li>• Paris Agreement signed. All UNFCCC parties, including emerging countries, required to set emission reduction targets (NDCs).</li> </ul>
COP26 (2021)	<ul style="list-style-type: none"> <li>• Parties urged to make efforts to achieve the 1.5°C target</li> <li>• Phase-down of unabated coal power mentioned</li> <li>• Paris Agreement rules finalized.</li> </ul>
COP27 (2022)	<ul style="list-style-type: none"> <li>• “Loss and damage” fund initiated</li> <li>• Parties urged to make efforts to achieve the 1.5°C target</li> <li>• Phase-down of unabated coal power mentioned</li> </ul>

Source: Prepared by JRI based on data from the United Nations and other sources

<sup>1</sup>Preparation for disasters caused by global warming is referred to as “adaptation,” damage caused by actual disasters is referred to as “loss and damage,” and efforts to reduce GHG emissions to curb global warming is referred to as “mitigation.”

<sup>2</sup>United Nations Environment Programme(UNEP), “Adaptation Gap Report 2023: Underfinanced. Underprepared. Inadequate investment and planning on climate adaptation leaves world exposed” (November 2, 2023)

<sup>3</sup>Nationally determined contributions(contributions set by national governments). The Paris Agreement requires that parties submit NDCs every five years.

<sup>4</sup>United Nations Environment Programme(UNEP), “Emissions Gap Report 2023: Broken Record – Temperatures hit new highs, yet world fails to cut emissions (again)”(November 20, 2023)

register a record high. The report notes that while most major economies have set decarbonization targets, the current pace of emission reductions is not consistent with their decarbonization goals. Moreover, even if countries step up their efforts and achieve their NDCs, the temperature rise is projected to reach +2.9°C above pre-industrial levels, so they will also need to raise their NDCs to hit the 1.5°C target.

### 3. COP28 achievements and issues still unaddressed

Amid such developments, COP28 took place in the UAE. Although some were concerned that the host nation, an oil-producing country, would be reluctant to deliver an international agreement on decarbonization, the final decision package (UAE Consensus) contained some positive outcomes, such as mention of expanding renewable energy use while cutting back on fossil fuel use (Table 2). However, numerous issues remained undealt with. For instance, pledged contributions to the newly established “loss and damage” fund were insufficient, and no concrete timetable was given for the phased reduction of coal-fired power generation.

The key achievements and shortcomings of the COP28 were as follows:

**Table 2. Key Decisions at COP28**

Global Stocktake	<ul style="list-style-type: none"> <li>• Outcome of the first Global Stocktake announced</li> <li>- Setting of emission reduction targets for the entire economy recommended</li> </ul>
Mitigation	<ul style="list-style-type: none"> <li>• Acceleration of shift away from fossil fuels to achieve decarbonization by 2050</li> <li>• Tripling of renewable energy capacity and doubling of energy efficiency by 2030</li> <li>• Reduction of non-CO2 GHG emissions such as methane</li> </ul>
Adaptation	<ul style="list-style-type: none"> <li>• More than twofold increase in financial support for adaptation</li> <li>• Global Goal on Adaptation (GGA) framework</li> </ul>
Loss and Damage	<ul style="list-style-type: none"> <li>• “Loss and damage” fund established</li> <li>- Approx. US\$800 million pledged</li> </ul>
Other	<ul style="list-style-type: none"> <li>• Next COP (COP29) to be held in Azerbaijan</li> </ul>

Source: United Nations

#### (1) “Loss and damage” fund established: General agreement reached on first day but pledged contributions insufficient

The first accomplishment was adoption of a general framework for the “loss and damage” fund, making good on the decision at COP27 last year to establish it.

At last year’s COP27, advanced countries came to the negotiating table for the first time to discuss support related to “loss and damage.” This was in response to pleas from low-latitude regions and island countries, and culminated in the historic agreement to set up the fund. And on day one of COP28, the parties settled on a general framework for the fund (Table 3). Specifically, the aim of the fund will be to help developing countries that are particularly vulnerable to the effects of climate change cope with various climate-related challenges. Overall management and oversight will be handled by a board comprising members from advanced and developing countries, with the World Bank administering the fund on an interim basis for the next four years, the method of administration after which will be discussed later. Regarding funding, advanced countries have

been urged to contribute money, with other parties also asked to provide assistance on a voluntary basis. Emerging nations such as China are encouraged to contribute financially.

However, there is no obligation for developed countries to provide money, nor have specific contribution targets been set. Furthermore, the pledges so far secured can hardly be described as adequate. At the close of COP28, the total amount pledged was only about US\$800 million, even though it is estimated that hundreds of billions of dollars would be needed to compensate for the “loss and damage.” Going forward, it will therefore be important to secure sufficient funding by encouraging advanced countries to increase their financial contributions and also asking for money from China and other emerging economies.

**Table 3. Overview of “Loss and Damage” Fund**

Purpose	<ul style="list-style-type: none"> <li>• Tackle loss and damage caused by global warming with assistance targeting developing countries vulnerable to climate change.</li> </ul>
Scope of Assistance	<ul style="list-style-type: none"> <li>• Assistance with addressing various issues stemming from climate change. Examples: issues related to extreme weather events, rising sea levels, evacuation, migration, climate information, etc.</li> </ul>
Administration	<ul style="list-style-type: none"> <li>• Management/supervision by a board. Comprises 26 persons, with two joint chairs, one from an advanced country and one from a developing country. <ul style="list-style-type: none"> <li>- Board members include 12 from advanced countries, three from Africa, three from Latin America, two from developing island nations, etc.</li> </ul> </li> <li>• Will be operated provisionally as a World Bank fund for four years.</li> </ul>
Monetary Contributions	<ul style="list-style-type: none"> <li>• Contributions from advanced countries requested</li> <li>• Other parties to provide assistance voluntarily</li> </ul>

Source: United Nations

**(2) First Global Stocktake: Broad range of examples of expected action presented, but unclear how they will be reflected in national targets**

The second achievement was that the outcome of the first Global Stocktake was presented as scheduled.

The Paris Agreement requires that parties set/update their NDCs, i.e., their voluntary targets, every five years. However, because the targets are determined voluntarily by each country, the sum of all the NDCs will not necessarily translate into the goals of the Paris Agreement being achieved. Therefore, the Paris Agreement introduced a mechanism called the “Global Stocktake,” which, after each country has submitted its NDC, assesses and verifies the progress of the world as a whole in tackling climate change, and provides information that can be used when countries update and ratchet up their NDCs. Each country is to review its own NDC based on the outcome of this Global Stocktake and submit an updated NDC by 2025.

Looking at the actual results of the Global Stocktake announced this time, the report summarizes the current status of efforts and challenges, and then presents a wide range of actions that each country is called on to take in order to raise its targets (Table 4). For example, with regard to mitigation, the Global Stocktake concludes that while countries have raised their emission reduction targets since the Paris Agreement, these are still insufficient to achieve the goals of the Paris Agreement, and calls for action to expand the use of renewables,

shift away from fossil fuels, and reduce emissions of GHGs other than CO<sub>2</sub>, such as methane. As for adaptation, it points out that developing countries lack the cash to pay for adaptation, and highlights the need to step up deployment of technology such as early warning systems. It also calls for the construction of water and food supply networks that are resilient to climate change and the strengthening of measures to address health hazards. It also presents a framework for the Global Goal on Adaptation.

However, the Global Stocktake is an assessment of the progress of the world as a whole; it does not look at target setting or progress in individual countries. It is up to each country to decide how to revise their NDCs based on the outcome of the Global Stocktake, and at the time of writing it is unclear to what extent the outcome of the Global Stocktake will be incorporated into the NDCs to be submitted by 2025 by national governments, and whether their new targets will be consistent with the 1.5°C target.

**Table 4. Summary of the Outcome of the First Global Stocktake**

Mitigation	<ul style="list-style-type: none"> <li>• Since the signing of the Paris Agreement, countries have raised their targets, reducing the projected increase in temperatures from +4°C to +2.1-2.8°C.</li> <li>• However, it will be difficult to achieve the goals of the Paris Agreement with the current targets. Targets will need to be raised, and efforts ramped up.</li> <li>• Going forward, countries will contribute to initiatives such as these:               <ul style="list-style-type: none"> <li>- Triple renewable energy capacity and double energy efficiency by 2030; accelerate the phased reduction of unabated coal power; step up action to transition away from fossil fuels; develop technology for removing carbon, producing hydrogen, etc.; cut emissions of non-CO<sub>2</sub> GHGs such as methane; abolish inefficient fossil fuel subsidies as soon as possible; etc.</li> </ul> </li> </ul>
Adaptation	<ul style="list-style-type: none"> <li>• Securing finance so that developing countries can implement adaptation plans is a major challenge.</li> <li>• It will be important to establish/strengthen climate-related services, including early warning systems.</li> <li>• Action should be taken at all levels, from regional to global, to achieve the following goals by 2030:               <ul style="list-style-type: none"> <li>- Build climate-resilient infrastructure for water supply, agriculture, and food supply/distribution, address health issues, and boost ability to recover from disasters.</li> </ul> </li> <li>• The framework for the Global Goal on Adaptation should include the following aims:               <ul style="list-style-type: none"> <li>- Assessment of vulnerability, risks, etc.; formulation/implementation of adaptation plans; monitoring/assessment of implementation; and essential capacity building.</li> </ul> </li> </ul>
Implementation /Assistance	<ul style="list-style-type: none"> <li>• The gap between the money needed by developing countries and the money actually provided to them will amount to US\$5.9-5.9 trillion by 2030.</li> <li>• Advanced countries need to assist with both mitigation and adaptation. Financial support for adaptation, in particular, must be doubled by 2025 compared with 2019.</li> <li>• It is regrettable that the annual target set for 2020 of US\$100 billion in assistance has still not been reached. The annual US\$100 billion target will remain in place until 2025.</li> </ul>

Source: United Nations

### **(3) Mention of specific measures in the final package of decisions: Tripling renewable energy capacity and moving away from fossil fuels**

The third achievement was that the UAE Consensus, i.e., the decisions ultimately reached at the conference, referred to concrete measures such as expanding the use of renewable energy. The final agreement at each COP needs to be unanimously approved by the approximately 200 parties, but it is difficult to reach consensus on specific measures, as the opinions of the different countries tend to clash. Yet despite the challenges, the final document of COP28 included concrete initiatives such as the goal of tripling renewable energy capacity by 2030 and an acceleration of the transition away from fossil fuels. Nevertheless, regarding a statement on fossil fuels, arriving at a consensus proved tricky due to strong opposition from oil-producing countries, and the conference ended up being extended to allow discussions to continue. These prolonged negotiations ultimately led to the omission of the direct expression “phasing out fossil fuels,” which Western and island countries had been clamoring for. Instead, the wording in the deal referred to reducing fossil fuel use with the phrase, “transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050.”<sup>5</sup> In particular, the fact that the final agreement, which was put together by the UAE, an oil-producing country, mentioned fossil fuel use reduction can be said to be a major accomplishment. However, there are also parts of the document that reflect a failure to reach consensus on assertive wording. The expression “phase-down of unabated coal power” has been included in the final agreement since COP26, and the wording remained more or less unchanged this time. Some countries are said to have asked for clearer statements, such as a concrete timeline for reducing coal-fired power generation, but their hopes went unrealized in the face of pushback from developing nations. As of the time of writing, no specific process for moving away from fossil fuels has been presented, so question marks about feasibility remain.

In addition to the above, COP28 also saw voluntary declarations from groups of like-minded countries concerning areas for which it would have been difficult to get statements included in the unanimously agreed final deal. Among key developments, it was announced that the U.S. would join the Powering Past Coal Alliance (PPCA), an international coalition established in 2017. There was also a declaration on expanding the use of nuclear power, as well as a statement on reducing GHG emissions from air conditioning, use of which is increasing as the planet heats up. With the participation of the U.S. in the PPCA, Japan is now the only G7 country still yet to join. Since each country has its own interests and faces different challenges in reducing emissions, it is difficult to get a raft of specific measures incorporated into a unanimous final agreement. It is therefore important for those willing nations to work together on steadily reducing GHG emissions.

### **(4) Financial support is inadequate**

On the other hand, no significant progress was made in providing financial assistance to developing countries. There was the establishment of a new US\$30 billion fund by the UAE, but as noted earlier, pledges to the newly

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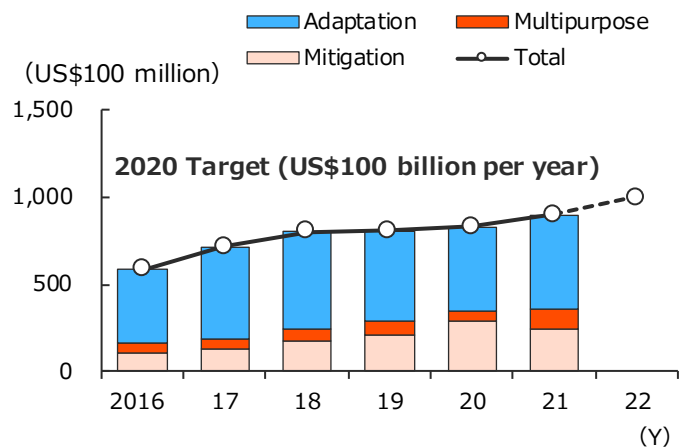
<sup>5</sup>The UAE Consensus statement in full is “**transitioning away from fossil fuels** in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science.”



established “loss and damage” fund only amounted to around US\$800 million. As such, the gap between the money contributed and the money needed for mitigation and adaptation remains large.

As of 2021, advanced countries still fell short of the target set at COP15 in 2009 to increase climate finance assistance to developing countries to US\$100 billion per year by 2020, though according to a provisional tally by the OECD, the target will finally be met in 2022 (Figure 2). Although the target of US\$100 billion in support by developed countries will remain in place through 2025, US\$100 billion is still a tiny amount compared to the funding actually required, so more financial assistance for developing countries is essential.

**Figure 2. Climate Finance Assistance from Advanced Countries to Developing Countries**



Source: OECD “Climate Finance Provided and Mobilised by Developed Countries in 2013-2021” (November 2023)

Note: Figures for 2022 are based on OECD projections and include unverified data.

#### 4. Required action going forward

In light of the achievements of COP28 and the issues still unaddressed, Japan and other countries will need to take actions such as the following:

##### (1) Stronger measures to tackle disasters stemming from climate change: Multifaceted support for developing countries

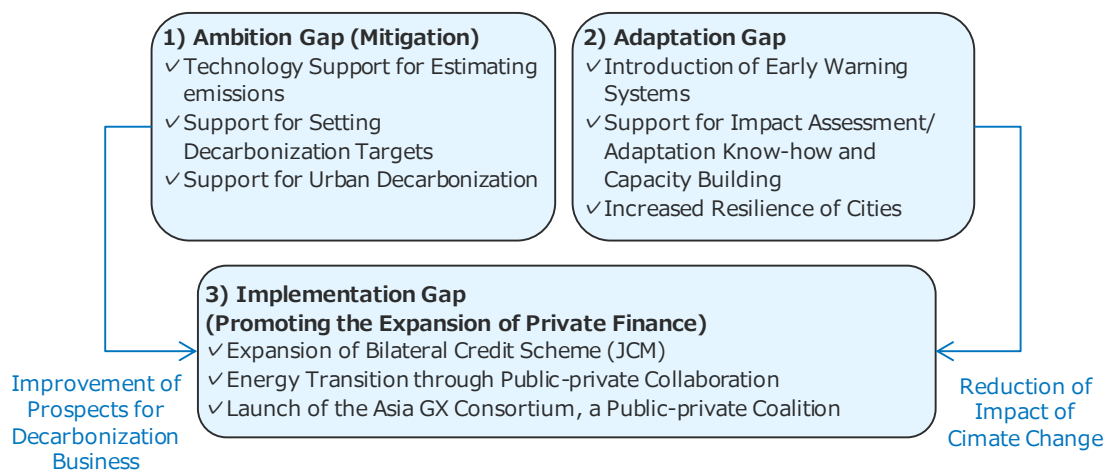
Recently, damage from disasters caused by global warming has been becoming more serious every year, making the provision of more assistance to developing countries vulnerable to climate change an especially urgent task. At present, however, financial support from advanced countries to developing countries is mainly for mitigation measures, and assistance directed at adaptation measures has been sluggish (Figure 2 above). Accordingly, advanced nations such as Japan need to ratchet up their financial support for adaptation in developing countries in order to achieve the goal of doubling their financial assistance for adaptation as soon as possible. Developing nations also face a variety of challenges besides a lack of money. Multifaceted support is therefore vital. These countries need technical support for disaster prevention technology, meteorological data observation and forecasting, risk assessment, and early warning systems, as well as assistance with human resource development for policy making and responding to disasters.

And since it will be difficult to provide support on a sufficient scale from public coffers alone, it will also be important to promote funding and technology transfer by the private sector. Spurring the development and diffusion of financial schemes suitable for developing countries, such as blended finance, in which risks are

shared by the public and private sectors, will also be crucial, as will encouraging the development of a basic business environment in developing countries through, for example, the enactment of laws governing contracts and rights, so that private companies can easily enter the market as businesses.

The support announced by Japan's Ministry of the Environment during COP28 comprises a package of measures for mitigation, adaptation, and the promotion of private finance. Specifically, there will be assistance with policy making, early warning system deployment, and know-how/capacity building (Figure 3). Since there are limits to the scope of support that it can provide on its own, Japan will need to expand such initiatives in cooperation with other advanced countries to enhance the resilience of developing countries to climate change. Increased resilience to climate change will also help reduce “loss and damage” caused by global warming.

**Figure 3. Summary of Ministry of Environment, Japan's Assistance Package to Promote Investments**



Source: Prepared by JRI based on Ministry of Environment, Japan's Assistance Package to Promote Investments for Global Actions Toward the Achievement of the Paris Agreement Goals

## **(2) Increasing reduction targets and accelerating implementation of concrete measures**

### **A. Setting ambitious targets: Achievement of -60% target for 2035 and earlier decarbonization**

With NDCs as they stand now, it will be difficult to accomplish the Paris Agreement goals. And in light of the outcome of the Global Stocktake, countries must raise their emission reduction targets in their new NDCs (2035 targets), which they must submit by 2025. If decarbonization is not achieved and global warming fails to be halted, more and more money will be needed for “adaptation” and “loss and damage.” Regarding the level of emission reduction targets required, the Global Stocktake outcome calls for emission cuts of 60% from 2019 by 2035. Japan’s Strategic Energy Plan is scheduled for review next year, and work on the new Plan will need to reflect the new emission reduction targets that are set to be submitted in 2025.

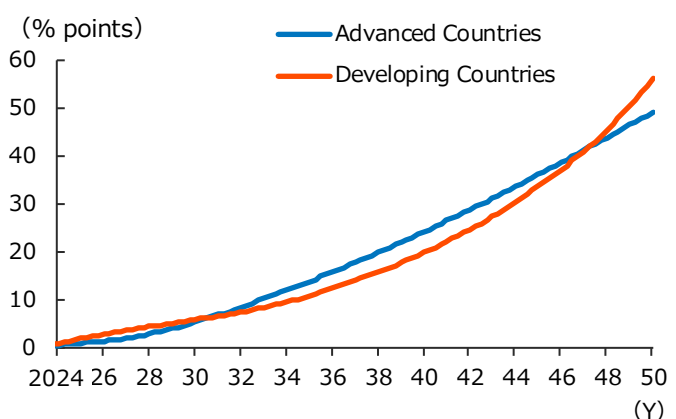
Aside from the NDCs, changes to long-term decarbonization targets should also be considered. To attain the 1.5°C target, the world as a whole needs to achieve decarbonization by 2050, and high-emission developing countries such as India, Russia, and China, which have set 2060 or 2070 as their decarbonization target years, need to be encouraged to bring these target years forward. However, the hurdles to decarbonization are generally regarded as higher in developing countries than in advanced nations, and if the world as a whole wants to accomplish decarbonization by 2050, advanced countries ought to aim to decarbonize earlier than 2050 and to become “carbon negative” by 2050. Germany, in fact, has already set 2045 as its decarbonization target year, and other advanced countries, including Japan, should also explore bringing their target years forward so as to encourage developing countries to increase their decarbonization targets.

**B. Accelerating emission reductions: Expansion of renewable energy use, reduction of fossil fuel use, and introduction of carbon pricing**

Not only must ambitious targets be set, but actual emission reductions also need to be accelerated. As mentioned earlier, the United Nations Environment Programme (UNEP) report notes that in many countries the current pace of emission reductions is not consistent with their decarbonization goals. The Japanese government's GX (green transformation) strategy, too, is focused on facilitating future technological innovation, and a clear roadmap for near-term emission reductions seems to be lacking. Going forward, countries will need to steadily reduce their current emissions by expanding use of renewable energy and improving energy efficiency, as demanded in the Global Stocktake, as well as by phasing out coal-fired power generation, the declared goal of the PPCA6.

To accelerate emission reductions, consideration also needs to be given to the introduction of carbon pricing. For example, a carbon tax, computed based on factors such as GHG emissions, could be imposed. Although subsidies are an effective policy option for encouraging investment in renewables and energy-efficient equipment, for the decarbonization of society as a whole, such investments will need to be massive, so taking the easy route of relying on subsidies could lead to a swelling fiscal burden, fiscal instability, and higher interest rates. According to IMF estimates 7, if countries aim to depend on subsidies to achieve decarbonization by 2050, the ratio of government debt to nominal GDP in advanced countries will rise by about 50 percentage points by 2050 (Figure 4). To speed up action to cut emissions while easing the

**Figure 4. Estimated Fiscal Cost of Promoting Decarbonization Mainly with Subsidies**



Source: IMF “FISCAL MONITOR” (October 2023)  
 Note: Scenario where advanced countries achieve decarbonization in 2050 and developing countries do so in 2060.

<sup>6</sup>Fossil fuel subsidies may also be increasing consumption of fossil fuels by keeping their prices low, so the Global Stocktake calls for such subsidies to be scrapped.

<sup>7</sup>IMF, “Fiscal Monitor (October 2023) - Climate Crossroads: Fiscal Policies in a Warming World” (October 2023)

fiscal burden, it will be crucial to curtail fiscal expenditures and secure financial resources from carbon tax revenues by combining carbon taxes with other measures<sup>8</sup>, rather than relying excessively on subsidies. However, the political hurdles that would need to be cleared for the introduction of an effective carbon tax are high<sup>9</sup>, and the public would also need to be persuaded. Getting citizens on board would be essential, and possible ways of achieving this could be to allocate a portion of carbon tax revenues to assistance for poor households and a “fair transition,” i.e., new jobs, during the process of decarbonization.

### **(3) Tolerating diverse approaches: Coalitions of willing countries and verification of each country's efforts**

Looking ahead, it will be necessary to gradually review the nature of international cooperation. In recent years, international discussions on responding to climate change at COPs and other forums have often been beset by difficulties in reaching consensus, especially when the negotiations cover specific measures, as each country is faced with different circumstances. For example, there are large regional disparities in the negative impacts of global warming, with island nations and low-latitude regions already suffering serious adverse effects, and high-latitude regions experiencing relatively moderate negative effects. Advanced countries, in particular, with their well-developed social infrastructure, are less susceptible to the ravages of global warming. On the other hand, the level of difficulty in implementing decarbonization initiatives also differs depending on the industrial structure, stage of economic development, and potential for the introduction of renewable energy in each nation, so if action is based on a worldwide, uniform approach, some countries may be unable to keep up.

The international debate on responding to climate change is now starting to shift from the goal-setting stage to the stage of considering and implementing specific measures. These discussions on concrete steps are expected to become central to the negotiations in the future, so it may become more difficult than ever to reach unanimous decisions, such as COP agreements. While there are some agenda items that should be decided unanimously, such as major directions and rules, when it comes to specific measures for decarbonization, there is a need to allow for a variety of approaches that reflect the circumstances of each country.

Coalitions of like-minded nations could be utilized to provide direction for international collaboration that is tolerant of diverse approaches. As mentioned above, coalitions of the willing have emerged in recent years in areas where gaining unanimous agreement is difficult, and by actively utilizing such initiatives, it will be possible to allow diverse approaches while maintaining international cooperation. However, it will be imperative to ensure that the loss of the enforcement power that unanimity provides does not result in countries dragging their feet on decarbonization. Currently, the status of efforts by the world as a whole is assessed and verified through NDC submissions and the Global Stocktake, but if a variety of approaches are to be tolerated, a system to assess and verify each country's efforts individually will become even more important. For example, each country could determine a roadmap toward decarbonization that is highly actionable given its particular strengths and challenges, while also utilizing the various frameworks of the coalitions of willing countries, and

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<sup>8</sup>Carbon pricing adds the cost of GHG emissions to the prices of fossil fuels, thus narrowing the price differential between fossil fuels on the one hand and renewable energy and low-carbon technologies on the other. It therefore allows costs such as subsidies to be kept down.

<sup>9</sup>The IMF notes that governments face a policy trilemma between “achieving climate goals,” “fiscal sustainability,” and “political feasibility.”

then move forward with action for decarbonization using approaches that are appropriate for the country, while explaining them clearly to the international community to secure its understanding.

## **5. Conclusion**

As discussed above, COP28 saw the announcement of the results of the first Global Stocktake, and the final agreement included references to specific initiatives such as the expansion of renewable energy use and the reduction of fossil fuel use, so the conference produced some positive outcomes. However, support for developing countries has not been sufficient, and efforts to reduce GHG emissions have noticeably slowed recently. Global warming is already causing myriad problems, and there is no time to waste in tackling climate change. Governments, including Japan's, need to swiftly beef up support for developing countries vulnerable to the effects of climate change and move faster with taking concrete action to achieve the goals of the Paris Agreement.