

## **JCCRS: JICA's Co-Benefits Approach to Climate Change for Climate Resilient and Sustainable Development**

### **Recommendations**

For the successful operationalization of climate-resilient development (CRD), the Japan International Cooperation Agency (JICA) is committed to taking the following actions and invites other agencies to join forces.

1. **Enhance Intersectoral collaboration** to tackle climate change and development issues.
2. **Understand the interlinkages** between climate actions and sustainable development.
3. **Engage in integrative and holistic responses such as** a co-benefits approach to climate change to achieve sustainable development while also yielding co-benefits with adaptation and mitigation to contribute to CRD.
4. **Promote transformative decision-making aligned with global, national and local as well as short-, mid- and long-terms goals, including** the Paris Agreement, SDGs, Nationally Determined Contribution (NDC), climate change and sectorial related strategies and policies.
5. **Amplify the impact of each action** through collaboration and co-creation with diverse partners and stakeholders.

## **Executive Summary**

The world is now facing major global crises, and there is an urgent need to implement climate change mitigation and adaptation while promoting sustainable development. The Intergovernmental Panel on Climate Change (IPCC) 6th Assessment Report (AR6) highlights climate-resilient development (CRD) as the pathway we should strive to take.

In this briefing, the Japan International Cooperation Agency (JICA) is proposing JICA's Co-Benefits Approach to Climate Change to promote CRD in partner countries as well as transformative decision-making towards a low-risk, low-carbon, human and planetary healthy, equal, and just society.

JICA's Co-Benefits Approach to Climate Change is an integrative, inclusive, and holistic approach that aims to achieve sustainable development while also yielding co-benefits with adaptation and mitigation to contribute to CRD. These measures aim to maximize synergies and minimize potential trade-offs with sustainable development while considering the natural environment and biodiversity.

## 1. Introduction

Under the Paris Agreement<sup>1</sup> of the United Nations Framework Convention on Climate Change (UNFCCC), all parties, including developing countries, are responsible for pursuing the common target to limit the temperature increase to 1.5 degree Celsius above pre-industrial levels. For the success of the Paris Agreement, inclusiveness of all parties is critically important. In this context, it is important to understand the relationship between climate actions and sustainable development goals (SDGs) and pursue both climate and developmental benefits. This is especially the case for developing countries, which are vulnerable to the adverse effects of climate change<sup>2</sup> while facing development challenges, including poverty, food and water security, and more.

The 2023 Global Sustainable Development Report<sup>3</sup> showed that out of the thirty-six targets reviewed, only two are on track to be achieved, while poverty eradication, gender equality, education and eliminating hunger have suffered significant setbacks caused by conflicts, the pandemic crisis, and climate-related disasters.

The interlinkage between the SDGs and climate actions has been pursued by various research works<sup>4, 5, 6</sup>. Some studies demonstrate that climate actions can have synergies with some SDGs but tradeoffs with others<sup>7, 8, 9</sup>. While there are more opportunities for achieving synergies than tradeoffs, climate actions may

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<sup>1</sup> [Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015. Addendum. Part two: Action taken by the Conference of the Parties at its twenty-first session.](#)

<sup>2</sup> Economic-Activity-What-are-the-Channels-of-Impact-45970 #: :text=IMF Working Papers&text=In these countries%2C a rise, slower investment%2C and poorer health.

<sup>3</sup> [https://sdgs.un.org/sites/default/files/2023-09/FINAL%20GSDR%202023-Digital%20-110923\\_1.pdf](https://sdgs.un.org/sites/default/files/2023-09/FINAL%20GSDR%202023-Digital%20-110923_1.pdf)

<sup>4</sup> Pradhan, P., Costa, L., Rybski, D., Lucht, W. & Kropp, J. P. A systematic study of sustainable development goal (SDG) interactions. *Earths Future* **5**, 1169–1179 (2017).

<sup>5</sup> Fuso Nerini, F., Tomei, J., To, L.S. *et al.* Mapping synergies and trade-offs between energy and the Sustainable Development Goals. *Nat Energy* **3**, 10–15 (2018).

<sup>6</sup> O'Neill, B. C. *et al.* Achievements and needs for the climate change scenario framework. *Nat. Clim. Change* **10**, 1074–1084 (2020).

<sup>7</sup> von Stechow, C. *et al.* Integrating global climate change mitigation goals with other sustainability objectives: a synthesis—supplement. *Annu. Rev. Environ. Resour.* **40**, 363–394 (2015).

<sup>8</sup> Jakob, M. & Steckel, J. C. Implications of climate change mitigation for sustainable development. *Environ. Res. Lett.* **11**, 104010 (2016).

<sup>9</sup> Fuso Nerini, F. *et al.* Connecting climate action with other Sustainable Development Goals. *Nat. Sustain.* **2**, 674–680 (2019).

potentially adversely affect land use, biodiversity<sup>10</sup> and food prices<sup>11</sup>.

The Intergovernmental Panel on Climate Change (IPCC) 6th Assessment Report (AR6) highlights climate-resilient development (CRD)<sup>12</sup> as the pathway we should strive to take. This is a process of implementing climate change mitigation and adaptation while promoting sustainable development for all in ways that support human and planetary health and well-being, equity, and justice.

As a development assistance agency, the Japan International Cooperation Agency (JICA) must take an active role in cooperating with developing countries to enable them to achieve CRD. In 2021, JICA formulated the operating strategy JICA Global Agenda for 20 thematic areas. Climate change is one of the themes, where two core approaches have been established: “Promote the implementation of the Paris Agreement” and “Co-benefits of climate change”. JICA will contribute to the achievements of the objectives of the Paris Agreement while building a sustainable and resilient society for all.

Aiming to promote a more integrative, holistic, and inclusive approach to climate change and sustainable development, JICA conducted a study project with the involvement of professors and researchers in various areas of expertise to redefine “co-benefits approach to climate change” and develop specific methodologies for making this concept operational. We also identified the short-, medium- and long-term goals by analyzing the logical sequences of the steps to be taken, using the Theory of Change (TOC)

This policy brief aims to provide insights into the interlinkages between climate actions and sustainable development and present how JICA's Co-Benefits Approach to Climate Change can promote CRD in partner countries.

## **2. Redefinition of “Co-Benefits Approach to Climate Change”**

To deliver a more integrative, inclusive, and holistic cooperation, JICA redefined the term “Co-Benefits Approach to Climate Change” as a solution that aims to achieve sustainable development while also yielding co-benefits with adaptation and mitigation to contribute to CRD. These measures aim to maximize synergies and minimize potential trade-offs with sustainable development while considering the natural environment and biodiversity.

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<sup>10</sup> Hof, C. et al. Bioenergy cropland expansion may offset positive effects of climate change mitigation for global vertebrate diversity. *Proc. Natl Acad. Sci. USA* **115**, 13294–13299 (2018).

<sup>11</sup> Stevanović, M. et al. Mitigation strategies for greenhouse gas emissions from agriculture and land-use change: consequences for food prices

<sup>12</sup> <https://www.ipcc.ch/report/ar6/wg2/chapter/chapter-18/>

### 3. JICA's Solution for Climate Resilient and Sustainable Development

#### 3.1 Conceptual framework "JICA's Co-Benefits Approach to Climate Change for Climate Resilient and Sustainable Development (JCCRS)".

The world is now facing major global crises that need to be addressed in a more integrative, holistic, and inclusive way, which requires collaborative actions between sectors and across different levels of society and stakeholders.

In this context, JICA has set its Global Agenda, consisting of 20 thematic strategies based on four pillars (Prosperity, People, Peace, Planet), to contribute to the achievement of the SDGs and address global challenges, including climate change, with the mission to work on human security and high-quality growth.

To deliver a more effective cooperation in the context of climate change, JICA developed the conceptual framework, JICA's Co-Benefits Approach to Climate Change for Climate Resilient and Sustainable Development (JCCRS) (Fig. 1).

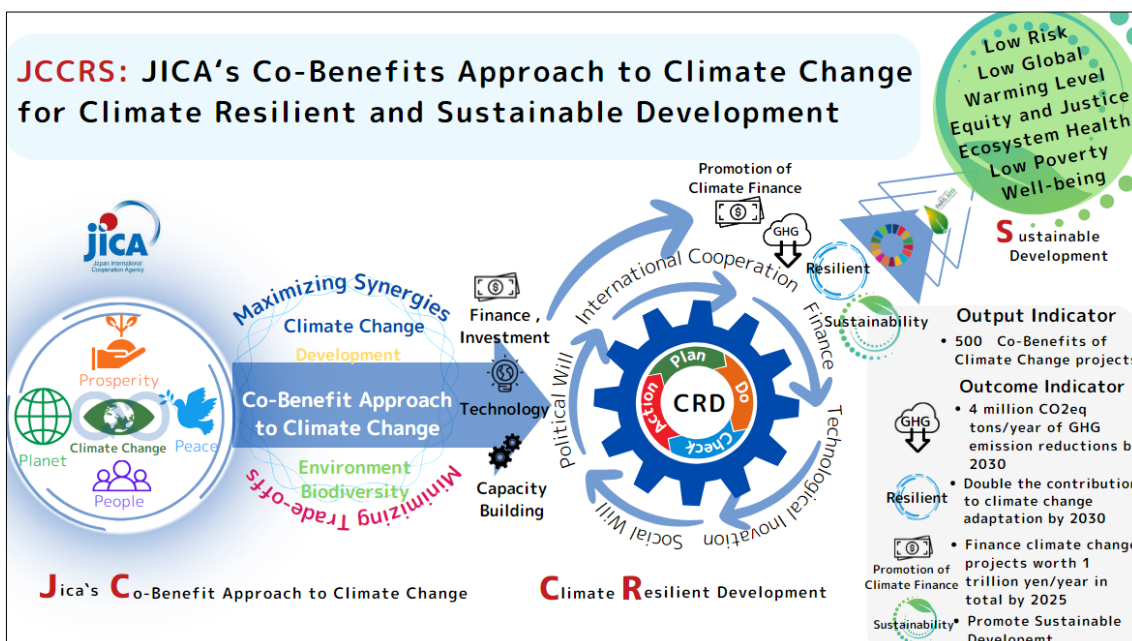


Figure 1: Concept framework of JICA's Co-Benefit of Climate Change for Climate Resilient and Sustainable Development

This framework consists of promoting the intersectoral collaboration inside JICA, to maximize synergies and minimize tradeoffs between climate actions and sustainable development, thereby achieving JICA's Co-Benefit of Climate Change for Climate Resilient and Sustainable Development (Fig. 2).

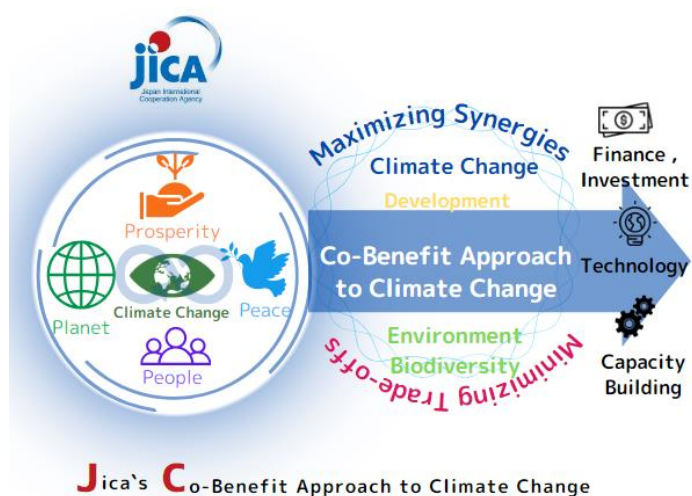
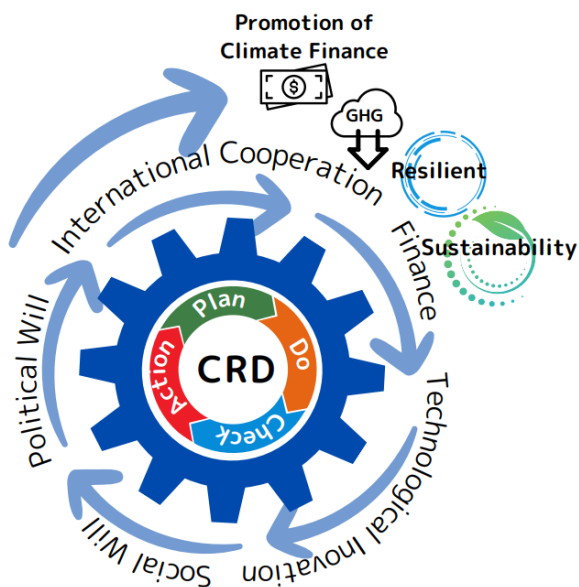


Figure 2: Closeup figure of JICA's Co-Benefit Approach to Climate Change



**C**limate **R**esilient Development

Figure 3: Closeup figure of Climate Resilient Development and outcomes from its promotion.

This approach is delivered according to the needs, strategies and priorities of each country or region, through different schemes, including technical cooperation, loans, and grants (Fig. 2). With these schemes, JICA supports partner countries in capacity building and financing for strategy, policy formulation (Plan), implementation (Do), evaluation and monitoring (Check), and improvement based on evaluation results (Action). JICA contributes to continuous societal choices to promote climate actions and sustainable development through these PDCA cycles. It leads to the promotion of climate finance, reduction of greenhouse gas (GHG) emissions, and increased resilience and sustainability (Fig. 3).

To amplify the impact of its cooperation,

JICA collaborates with diverse partners and stakeholders to enhance international cooperation, finance, technological innovation, political and social will (Fig. 3). In this way, JICA will contribute to achieving the SDGs and the Paris Agreement, and building a low-risk, low-carbon, human and planetary healthy, equal and just society (Fig. 4).

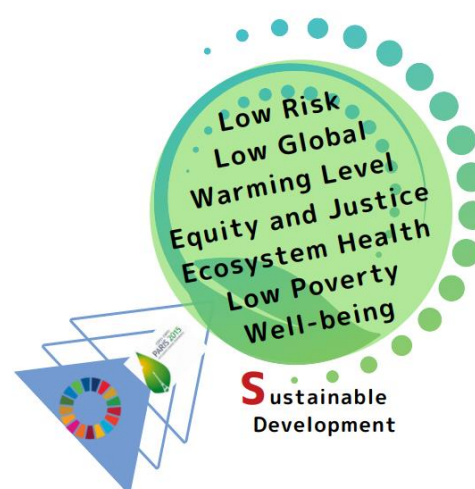


Figure 4: Closeup figure of the Impact of JICA's approach

### **3.2 Analysis of synergies and tradeoffs between climate actions and sustainable development and means to operationalize JICA's Co-Benefits Approach to Climate Change**

To understand the synergies and tradeoffs between climate action and sustainable development and operationalize JICA's Co-Benefit of Climate Change as described above, JICA analyzed and listed possible climate actions aligned to each sector. Potential synergies and tradeoffs between the respective SDGs and climate actions were examined according to scientific literature and expert judgment.


















Table 1 shows the relationship between the climate actions in each sector and the SDGs. The green boxes represent synergies, yellow represents the situations where both synergies and tradeoffs are present. The blank boxes are the ones with no sufficient data to conduct an analysis. Through this policy brief, we understand the relationship between JICA's climate actions and sustainable development. We also discover that synergies are more abundant than tradeoffs, demonstrating the great potential of JICA's cooperation towards achieving CRD.



On the other hand, potential tradeoffs were also identified as affecting the environment and biodiversity (SDG 12,14,15), climate change (SDG 13), and gender equality (SDG 5).

These tradeoffs will be mitigated during the project formulation stage by JICA. The effects on human health, safety, environment, biodiversity, local communities, governance, and peace are considered in pre-project implementation studies to

be conducted according to JICA Guidelines for Environmental and Social Considerations.<sup>13</sup> The effect on gender inequality also will be mitigated during project formulation by following the guidance of the Manual for Mainstreaming Gender in JICA Projects.<sup>14</sup>

Table1: Synergies and tradeoffs between SDGs and climate action by sector

	 1. No Poverty	 2. Zero Hunger	 3. Good Health and Well-being	 4. Quality Education	 5. Gender Equality	 6. Clean Water and Sanitation	 7. Affordable and Clean Energy	 8. Decent Work and Economic Growth	 9. Industry, Innovation and Infrastructure	 10. Reduced Inequalities	 11. Sustainable Cities and Communities	 12. Responsible Consumption and Production	 13. Climate Action	 14. Life Below Water	 15. Life and Land	 16. Peace, Justice and Strong Institutions	 17. Partnerships for the Goals	
Climate Action by Sector																		
Urban and Regional Development																		
Transportation																		
Energy and Mining																		
Private Sector Development																		
Agricultural and Rural Development																		
Health																		
Improving Nutrition																		
Education																		
Social Security / Disability and Development																		
Sport and Development																		
Governance																		
Public Finance and Financial Systems																		
Gender and Development																		
Digital for Development																		
Water Resources and Water Supply																		
Environmental Management																		
Natural Environment Conservation																		
Disaster Risk Reduction																		

 Synergy  Synergy and Tradeoff

For example, the Pasig-Marikina River Channel Improvement Project, implemented in the Philippines since 2000, has mitigated the effects of floods, increasing the resilience of the Manila City through the formulation of hazard maps, construction of infrastructure, including revetments, floods walls and movable weirs. These actions were implemented considering the future effects of climate change in the region. This project increased resilience towards climate-

<sup>13</sup> <https://www.jica.go.jp/english/about/organization/environment/guideline/index.html>

<sup>14</sup> <https://www.jica.go.jp/english/activities/issues/gender/materials.html>



related disasters and has had a positive impact on reducing poverty, improving health and sanitation, and building resilient cities. These actions protect the lives and livelihood of the local community, prevent social and economic damage, and avoid water contamination and the spread of diseases caused by floods. This project was formulated and implemented considering the potential effects on the environment such as air and water quality. Gender issues were also taken into consideration.

We also discover that climate mitigation and adaptation actions may also have tradeoffs with each other. Mitigation actions may turn a particular region or community more vulnerable to climate change impacts. Adaptation actions, on the other hand, may result in an increment in GHG emissions. This relationship will be minimized utilizing the JICA Guidelines for Environmental and Social Considerations and JICA Climate Finance Impact tool<sup>15</sup>, which will provide information and insights to address each tradeoff.

Through this analysis, it was possible to identify and understand with more detail the potential synergies and tradeoffs for each climate action. However, there are still challenges towards maximizing synergies and minimizing tradeoffs as far as possible.

It is also important to understand that the results, shown in Table 1, can vary according to specific contexts where each action will take place. Therefore, to maximize synergies and minimize tradeoffs between climate actions and SDGs, the findings in this table must be utilized as a general guidance, but concrete actions must be specifically considered for each context in the decision-making process.

#### **4. Way forward**

In this policy brief, JICA demonstrated how JICA's Co-Benefits Approach to Climate Change aims to achieve CRD and contributes to social transformation towards a resilient and sustainable future, and the conducted analysis enabled to understand the relationship among the SDGs and climate action. At the same time, it pointed out that there are still challenges to be overcome concerning ways to maximize synergies and minimize tradeoffs.

CRD is a very ambitious framework to be achieved, and JICA is committed to addressing the challenges and taking collaborative actions with various partners

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<sup>15</sup> [https://www.jica.go.jp/Resource/english/our\\_work/thematic\\_issues/climate/materials.html](https://www.jica.go.jp/Resource/english/our_work/thematic_issues/climate/materials.html)

to amplify the impact of its cooperation. In addition, JICA invites all stakeholders to consider taking holistic and integrative approaches to tackling climate change and development issues in order to build a sustainable and resilient society for all.