Integrating the SDGs into Policy Planning and Implementation

UNU-IAS Funded Project on Governance for Sustainable Development

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Overseas Environmental Cooperation Center, Japan (OECC)

Preamble

United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS) has implemented the Governance for Sustainable Development project since FY2013. The project launched its phase-2 activities in FY2021.

To achieve the SDGs, it is essential to enhance synergies and minimise trade-offs among the goals, particularly those related to carbon neutrality.

Implementing the 2030 Agenda requires alignment of functions, resources, governance, capacity, and partnership at the international, national, and local levels. However, there are challenges in effectively planning and implementing policies for more integrated solutions addressing synergies and trade-offs between the goals.

The phase-2 project conducts studies to analyse data and information on how governments and international institutions have incorporated the SDGs into policy planning and implementation, and contributed to the global agenda.

As a part of this phase-2 project, Overseas Environmental Cooperation Center, Japan (OECC) analysed the mechanisms for integrating SDGs into international cooperation projects and summarised the project's outreach activities in 2021-2022.

CONTENTS

1. Integrating the SDGs into policy planning and implementation

This project aims to contribute to global and sub-global discussions on implementation and follow-up of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs), and propose policies and frameworks for a long-term transformation towards sustainable societies. To achieve the SDGs, it is essential to enhance synergies and minimize trade-offs among the goals, particularly regarding actions for carbon neutrality.

This study analyses the publicly available data and information on how the international cooperation projects have institutionalised the SDGs into their policy planning and implementation. The multilateral development banks such as the World Bank (WB) and the International Finance Corporation (IFC), as well as the financial mechanisms of environmental conventions such as the Green Climate Fund (GCF) and the Global Environment Facility (GEF) are studied. In Section 1.1, their policies and guidelines are reviewed to collect information on the mechanisms to integrate SDGs into international cooperation projects. Section 1.2 attempts to present preliminary compilations of the institutional mechanisms derived from these four institutions according to the project management cycle, the eligibility criteria, environmental and social concerns, and monitoring and evaluation criteria relevant to the SDGs. In Section 1.3, types of climate action are analysed according to co-benefits and synergies with other sustainable development efforts, as well as ancillary negative effects that hinder other sustainable development efforts, followed by good practice cases studies.

1.1 Reviews on the Institutional Arrangement for the SDGs, Including Budgeting, Procurement, and Monitoring and Evaluation System for Policy Planning and Implementation

Literature reviews on the mechanisms to integrate SDGs into international cooperation projects at one of the MDBs (the WB), and the financial mechanisms of environmental conventions (the GCF and the GEF) were undertaken with focus on the institutional guiding documents for project management. The term “project management” extends to the project life cycles starting from preparation, approval, implementation, monitoring, and evaluation stages. The information sources included well-documented and publicly accessible materials, typically websites.

1.1.1 The World Bank (WB)

In 1944 the International Bank for Reconstruction and Development was founded to help rebuild the countries after World War II. Today, five institutions form the WB Group[*1] working for sustainable solutions in two clearly defined areas: i.e. to end extreme poverty, and to promote shared prosperity.

The WB's instruments of assistance include low-interest loans, similar credits, and grants to developing countries. The operational sectors of the WB's projects are framed into agriculture, education, energy, finance, health, social support, industry, information, public administration, transportation, and water/sanitation/waste. The operational themes are framed into economic policy, private sector development, finance, public sector management, social development/protection, human development/gender, urban/rural development, and the environment.[*2]

The institutional mechanisms of the WB to mitigate trade-off impacts and to integrate the sustainable development agenda are described below.

- Institutional mechanisms to mitigate trade-off impacts: Policies, guidelines, and other documents for project management, which are designed to address the environmental and social safeguard issues, and
- Institutional mechanisms to align with the sustainable development agenda: Policies, guidelines, and other documents for project management, which are designed to identify the sustainable development agenda in the project country and to integrate them in the project management

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[1] The International Bank for Reconstruction and Development (IBRD) provides financial development and policy financing, The International Development Association (IDA) provides zero-to low-interest loans and grants, The International Finance Cooperation (IFC) mobilizes private sector investment and provides advice, The Multilateral Investment Guarantee Agency (MIGA) provides political risk insurance (guarantees), and The International Centre for Settlement of Investment Disputes (ICSID) settles investment disputes.

[2] "Sector and Theme Operational Coding Remap" (https://thedocs.worldbank.org/en/doc/851671563291303937-0290022018/original/SectorandThemeremapv2crosswalk.pdfhttps://thedocs.worldbank.org/en/doc/851671563291303937-0290022018/original/SectorandThemeremapv2crosswalk.pdf)

Both subsections are supported with concrete examples from one of the WB projects in Indonesia.

■ Mechanisms to Mitigate Trade-Off Impacts: Policies, Guidelines, and Other Documents for Project Management

The Word Bank Group's policies and guidelines are published on its website.[*3]

For projects with governments as borrowers[*4], the WB has developed the Environmental and Social Safeguard Policies which require the environmental and social impact assessment, for example. Furthermore, in October 2018, the WB started to apply a new set of policies called the Environmental and Social Framework (ESF). Currently, these two systems are applied in parallel.

a. The Environmental and Social Safeguard Policies
b. The Environmental and Social Framework (ESF)

Brief descriptions of the contents for each document are provided hereafter.

a. The Environmental and Social Safeguard Policies

The WB's Environmental and Social Safeguard Policies consist of the following operational policies.

1. *Environmental and Social Safeguard Policies – Policy Objectives and Operational Principles*
2. *Environmental Assessment*
3. *Environmental Action Plans*
4. *Performance Standards for Private Sector Activities*
5. *Natural Habitats*
6. *Pest Management*
7. *Indigenous Peoples*
8. *Physical Cultural Resources*
9. *Involuntary Resettlement*
10. *Forests*

[3] "Environmental and Social Policies" (https://www.worldbank.org/en/projects-operations/environmental-and-social-policies)

[4] For the private sector project, the information is provided in the section concerning IFC.

11. *Safety of Dams*

The following part explains the key elements of the above guiding documents especially in relation to this study's focus — climate actions in trade-off with or synergetic to other SDGs, and institutional mechanisms to integrate the SDGs into climate change mitigation projects.

(i) Policy Objectives and Operational Principles

"OP 4.00 — Environmental and Social Safeguard Policies – Policy Objectives and Operational Principles" is composed of a list of assessment areas and the corresponding objectives and operational principles (Table 1).

Table 1 The WB's environmental and social safeguard policies — policy objectives and operational principles (example)(*5)

A. Environmental Assessment	
Objectives	*Operational Principles*
To help ensure the environmental and social soundness and sustainability of investment projects.	1. Use a screening process for each proposed project, as early as possible, to determine the appropriate extent and type of environmental assessment (EA) so that appropriate studies are undertaken proportional to potential risks and to direct, and, as relevant, indirect, cumulative, and associated impacts. Use sectoral or regional environmental assessment when appropriate.
To support integration of environmental and social aspects of projects into the decision making process.	2. Assess potential impacts of the proposed project on physical, biological, socio-economic and physical cultural resources, including transboundary and global concerns, and potential impacts on human health and safety.
	3. Assess the adequacy of the applicable legal and institutional framework, including applicable international environmental agreements, and confirm that they provide that the cooperating government does not finance project activities that would contravene such international obligations.
	4. Provide for assessment of feasible investment, technical, and siting alternatives, including the "no action" alternative, potential impacts, feasibility of mitigating these impacts, their capital and recurrent costs, their suitability under local conditions, and their institutional, training and monitoring requirements associated with them.
	5. Where applicable to the type of project being supported, normally apply the Pollution Prevention and Abatement Handbook (PPAH).1 Justify deviations when alternatives to measures set forth in the PPAH are selected.
	6. Prevent and, where not possible to prevent, at least minimize, or compensate for adverse project impacts and enhance positive impacts through environmental management and planning that includes the proposed mitigation measures, monitoring, institutional capacity development and training measures, an implementation schedule, and cost estimates.
	7. Involve stakeholders, including project-affected groups and local nongovernmental organizations, as early as possible, in the preparation process and ensure that their views and concerns are made known to decision makers and taken into account. Continue consultations throughout project implementation as necessary to address EA-related issues that affect them.
	8. Use independent expertise in the preparation of EA where appropriate. Use independent advisory panels during preparation and implementation of projects that are highly risky or contentious or that involve serious and multi-dimensional environmental and/or social concerns.
	9. Provide measures to link the environmental assessment process and findings with studies of economic, financial, institutional, social and technical analyses of a proposed project.
	10. Provide for application of the principles in this Table to subprojects under investment and financial intermediary activities.
	11. Disclose draft EA in a timely manner, before appraisal formally begins, in an accessible place and in a form and language understandable to key stakeholders.

[5] "OP 4.00 - Table A1 -Environmental and Social Safeguard Policies – Policy Objectives and Operational Principles" (https://ppfdocuments.azureedge.net/3900.pdf)

(ii) Environmental Assessment[*6)]

"OP 4.01 — Environmental Assessment" is required for WB's proposed projects. All proposed projects undergo environmental screening, where WB classifies the proposed project according to Categories A, B, C, and FI depending on the potential environmental impacts.

Table 2. WB's environmental screening and risk categorization

Category	Potential adverse impacts of the proposed project => Requirement by WB
A	Significant adverse environmental impacts that are: -sensitive; irreversible loss of natural habitat, raise issues on indigenous peoples/physical cultural resources/involuntary resettlement -diverse; or -unprecedented. Impact areas broader than the project site => Required with a full environmental assessment report (note 1) and environmental management plan (note 2)
B	Adverse environmental impacts are less than Category A. Impacts are site-specific, Fewer irreversible impacts than Category A Mitigatory measures are designable => Required with a partial environmental assessment and environmental management plans, to be described in the project appraisal document and project information document.
C	Minimal or no adverse environmental impacts. => No further requirement.
FI	Implemented via other financial intermediaries. => Required with environmental screening and subsequent environmental actions as necessary to be undertaken by the financial intermediaries.

(Note 1) An environmental assessment report should include the following items:[*7)]
(a) Executive summary
(b) Policy, legal, and administrative framework
(c) Project description
(d) Baseline data
(e) Environmental impacts
(f) Analysis of alternatives
(g) Environmental management plan

(Note 2) An environmental management plan should include the following items:[*8)]

[6] "OP 4.01 - Environmental Assessment" (https://ppfdocuments.azureedge.net/1565.pdf)

[7] "OP 4.01, Annex B - Content of an Environmental Assessment Report for a Category A Project" (https://ppfdocuments.azureedge.net/3902.pdf)

[8] "OP 4.01, Annex C - Environmental Management Plan" (https://ppfdocuments.azureedge.net/3903.pdf)

Mitigation:
(a) all significant adverse environmental impacts
(b) descriptions of – with technical details – each mitigation measure
Monitoring:
(a) specific description and technical details of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and thresholds that will prompt corrective actions
(b) monitoring and reporting procedures, including information disclosure
Capacity Development and Training:
(a) technical assistance programs
(b) procurement of equipment and supplies
(c) organizational changes
Implementation Schedule and Cost Estimates:
(a) implementation schedule in phases and coordination with overall project implementation
(b) capital and recurrent cost estimates/resources

b. The Environmental and Social Framework (ESF) [*9]

The WB developed the Environmental and Social Framework (ESF) to further advance its commitment to the sustainable development agenda such as labour, non-discrimination, climate change, biodiversity, community health and safety, and stakeholder engagement. The WB has established ten Environmental and Social Standards (ESS) which set out the requirements that apply to borrowers managing environmental and social risks.

Table 3 The WB's Environmental and Social Standards (ESS)

1	Assessment and Management of Environmental and Social Risks and Impacts
2	Labor and Working Conditions
3	Resource Efficiency and Pollution Prevention and Management
4	Community Health and Safety
5	Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
6	Biodiversity Conservation and Sustainable Management of Living Natural Resources
7	Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities
8	Cultural Heritage
9	Financial Intermediaries
10	Stakeholder Engagement and Information Disclosure

[9] "Environmental and Social Framework" (https://www.worldbank.org/en/projects-operations/environmental-and-social-framework)

Table 4. provides a summary of the key elements extracted from these guiding documents. It is recognized that the WB projects sometimes have trade-off impacts vis-a-vis environmental and social protection, and the objectives of the ESS are stated as to mitigate such trade-off impacts.

Table 4. Summary of the WB's ESS with the objectives to mitigate trade-off impacts

ESS		Scope of application	Objectives to mitigate trade-off impacts
1	Standards for assessing, managing and monitoring environmental and social risks and impacts associated with the WB projects	All WB projects	To safeguard from environmental and social risks and impacts.
2	Standards for treating workers employed in the WB project fairly and providing safe and healthy working conditions	Relevant WB projects that employ workers	To safeguard from risks and impacts on workers, to prevent forced labour or child labour. To avoid inadequate safety and health for workers, unfair treatment/unequal opportunities.
3	Standards for resource efficiency and pollution prevention and management	Relevant WB projects that use resources and potentially cause environmental pollution	To avoid or minimize pollution from project activities, project-related emissions of climate pollutants, waste generation, risks and impacts associated with pesticide use. To avoid unsustainable use of energy, water, and raw materials.
4	Standards for community health and safety	Relevant WB projects that increase community exposure to risks and impacts, and accelerate impacts to communities due to the WB projects	To avoid adverse impacts on the health and safety of project-affected communities, community exposure to safety risks, diseases, and hazardous materials from the project-related traffic. To avoid design and construction of infrastructure including dams without quality, safety, and climate change considerations.
5	Standards for land acquisition, restrictions on land use and involuntary resettlement	Relevant WB projects that result in permanent or temporary physical and economic displacement	To avoid or minimize when unavoidable involuntary resettlement. To mitigate adverse social and economic impacts from land acquisition or restriction of land use, with priority support for poor or vulnerable persons.
6	Standards for biodiversity conservation and sustainable management of living natural resources	Relevant WB projects that potentially affect biodiversity or habitats, and that involve production or harvesting of living natural resources	To avoid design and implementation of projects potentially having impacts on biodiversity without mitigation and precautionary measures. To avoid unsustainable use of living natural resources. To safeguard livelihood of local communities including indigenous peoples.
7	Standards for Indigenous Peoples / Sub-Saharan African Historically Underserved Traditional Local Communities	Relevant WB projects that bring positive or negative impacts to them	To safeguard full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods of Indigenous Peoples / Sub-Saharan African Historically Underserved Traditional Local Communities, and to avoid or minimize when unavoidable adverse impacts of the projects on them.
8	Standard for cultural heritage	Relevant WB projects that bring positive or negative impacts to cultural heritages	To safeguard cultural heritage from adverse impacts. To avoid unequitable sharing of benefits from use of cultural heritage.

ESS		Scope of application	Objectives to mitigate trade-off impacts
9	Standard for financial intermediaries	Relevant WB projects that are undertaken through partner financial intermediaries	(Similar to ESS 1)
10	Standard for stakeholder engagement and information disclosure	All WB projects	To safeguard stakeholder engagement and information disclosure.

■ Mechanisms to Mitigate Trade-Off Impacts: Project Examples

To provide some examples for the practical implementation of the institutional guiding documents, one of the WB's climate mitigation projects is shown with the examples of environmental and social impact mitigation measures.

□ *Project ID: P157245* [*10]

Project name: Improvement of Solid Waste Management to Support Regional and Metropolitan Cities

Borrower: Indonesia

Project period: 2019/12/5 (approval date) – 2025/11/30 (closing date)

Environmental category: A

Project sectors: Waste management, public administration (water, sanitation, and waste management)

Project themes: Climate mitigation and adaptation, urban development, gender, public private partnerships

□ *Examples of the Environmental and Social Impact Mitigation Measures*

Practical application of the WB institutional guiding documents in identifying the environmental and social safeguard issues and mitigation measures can be found in the following project documentation:

- Project Information Document-Integrated Safeguards Data Sheet[*11], and

- Environmental Assessment - Environmental and Social Management Framework[*12]

Tables 5 and 6 show examples of the environmental and social safeguard issues identified in the WB project, and examples of the mitigation measures.

[10] (https://projects.worldbank.org/en/projects-operations/project-detail/P157245)

[11] (https://documents1.worldbank.org/curated/en/764661557397836719/pdf/Project-Information-Document-Integrated-Safeguards-Data-Sheet-Improvement-of-Solid-Waste-Management-to-Support-Regional-and-Metropolitan-Cities-P157245.pdf)

[12] (https://documents1.worldbank.org/curated/en/781051510608417715/pdf/Environmental-and-social-management-framework.pdf)

Table 5. Key safeguard issues according to the WB environmental and social safeguard policies

Environmental assessment OP/BP 4.01
-Generally known risks learned from the sector including groundwater, surface water and air pollution, odour and disease vector proliferation -Foul smell along the transportation corridors to the landfill, illegal dumping, uncollected waste falling outside formal waste stream and temporary disposal -Risk of adverse environmental impacts (air, land and water pollution) during the construction, operation and maintenance of a new landfill -Rehabilitation of leachate treatment systems and waste treatment plants -Excavation of old waste -Installation of landfill gas collection -Diverse social and economic impacts mostly on existing landfill areas and potentially in the areas to develop new landfills
Forests OP/BP 4.36: no safeguard issue is identified
Pest management OP 4.09: no safeguard issue is identified
Physical cultural resources OP/BP 4.11
-There is a potential to include physical cultural resources in a new landfill construction site
Indigenous peoples OP/BP 4.10
-Indigenous peoples' communities may be present in possible temporary dumping sites and compositing activities
Involuntary resettlement OP/BP 4.12
-Land acquisition due to rehabilitation of existing landfill and construction of new landfills -Physical and economic displacement of waste pickers and livestock owners, other actors in the informal recycling sector
Safety of dam OP/BP 4.37: no safeguard issue is identified
International waterways OP/BP 7.50: no safeguard issue is identified
Projects in disputed areas OP/BP 7.60: no safeguard issue is identified

(Note) Based on "Project Information Document-Integrated Safeguards Data Sheet", pp 20-24

Table 6. Key environmental and social impacts and mitigation measures

Source of impacts	Possible impacts	Aspect	Impact management measures
Prior to constructing a new landfill			
Dissemination of information to waste-pickers and project affected peoples	Negative perception and/or social tension	Community engagement	Stakeholder engagement, establishment of grievance mechanisms
Site survey e.g., soil, water, air, noise, odor, biodiversity, etc.	Potential contamination from drilling survey	Air, soil and water quality	Drilling management plans
During construction works etc.			
Labor recruitment	Increase in local economic activities i.e., construction works	Economic impacts on host communities	Promoting local goods and service providers
	Potential tension between migrant workers and local workers	Economic and social impacts on host communities	Communication mechanisms between the local community representatives and project contractors, grievance mechanisms to the host community, health and safety measures for construction workers
Construction work to install a new landfill	Dust, noise	Air quality, noise	Technologies to reduce suspended dust particles, noise
	Traffic disruption	Traffic/transportation	Traffic/transportation plans for construction works, road safety measures, heavy construction vehicles controls, etc.
	Intensified consumption of local resources (energy, water, materials, etc)	Load to local resources	Resource management plans to adequate levels, procurement plans
	Loss of habitat	Biodiversity/habitat	Biodiversity conservation plans, remedial measures
Rehabilitation work for old dumping site	Litter, noise, odour	Litter, noise, odour	Wind fencing, buffer zones, etc. surrounding the work site

Source of impacts	Possible impacts	Aspect	Impact management measures
	Leachate	Water quality	Leachate control plans, leachate treatment plants
	Disease vectors (flies, rats, etc.)	Community health and safety	Leachate treatment plants
	Health and safety for the site workers	Occupational health and safety	Personal protection equipment, health & sanitation plans
Demolition works	Dust, noise	Air quality, noise	Technologies to reduce suspended dust particles, noise
	Traffic disruption	Traffic/transportation	Traffic/transportation plans for construction works, road safety measures, area control etc. for heavy construction vehicles, etc.
	Debris	Waste management	Proper disposal of construction debris
Implementation phase			
Operation and maintenance of a new landfill	Air, leachate, odour, hazardous waste, etc.	Environmental quality, waste management	Technologies to comply with environmental and health standards
	Intensified consumption of local resources (energy, water, materials, etc)	Load to local resources	Resource management plans to adequate levels, procurement plans
Operation and maintenance of landfill gas capture	Emission of biogas, odour, ambient air quality, hazardous waste from sooth	Air quality, odour, hazardous waste	Technologies to reduce emission of air pollutants/odour, to appropriately treat hazardous waste
Re-employment of waste-pickers	Dignity, social recognition, etc.	Integrity of individuals, local community engagement	Ensuring employment conditions/options, consultation with local communities
	Occupational health & safety	Occupational health & safety	Provision of appropriate protective equipment, monitoring occupational hygiene standards
Waste collection and transport	Litter, effluent, dust, garbage vehicle exhaust, noise, odour, road safety	Environmental quality, waste management, Traffic/transportation	Technologies to comply with environmental and health standards, traffic/transportation plans and road safety measures for garbage vehicles

(Note) Based on “Environmental assessment - Environmental and social management framework”, Annex 5

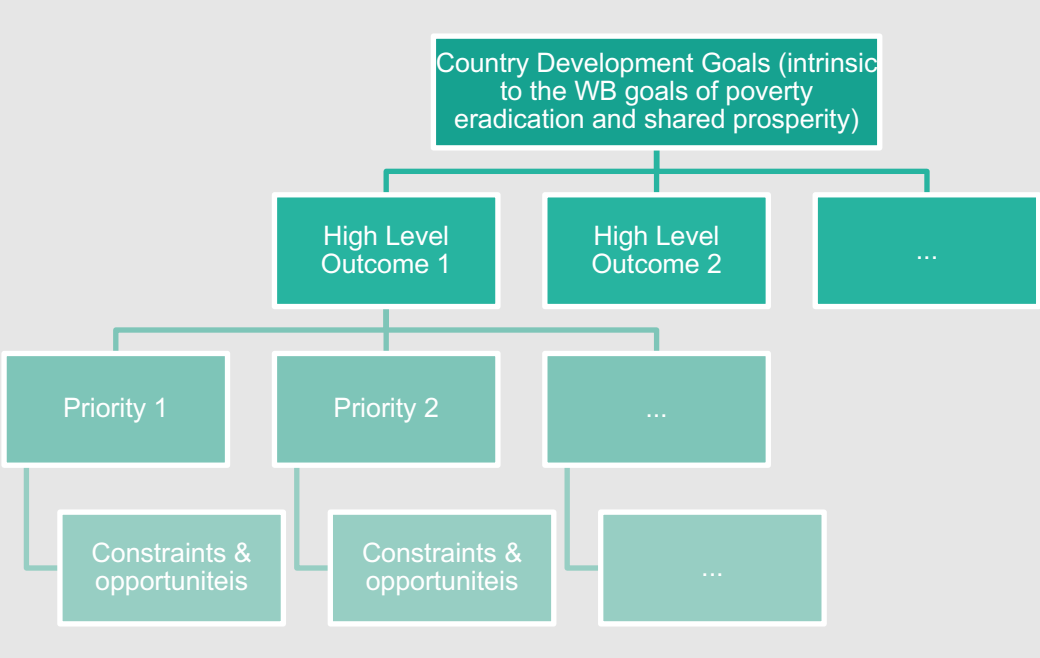
■ Mechanisms to Align with the Sustainable Development Agenda: Policies, Guidelines, and Other Focuments for Project Management

Towards more systematic, evidence-based, selective, and focused on the WB's dual missions of poverty eradication and prosperity sharing, the WB has developed its Country Partnership Framework (CPF). When developing a CPF, a Systematic Country Diagnostic (SCD) is prepared to identify a set of country priorities.

a. Systematic Country Diagnostics (SCD)

To prepare a Systematic Country Diagnostic (SCD), a guidance is provided to outline a standard content of a SCD document. (*13)

- Country development goals and its pathway to the WB goals of poverty eradication and shared prosperity



(Note) Based on "Guidance for the Preparation of Systematic Country Diagnostics (SCD)", p. 3

Figure 1. Country development goals and its pathway

  - High Level Outcomes: Sustained improvements in the well-being of the poorest and most vulnerable people e.g., their health, security, mobility, opportunity, livelihood, standard of living, etc., which are

[13] (https://ppfdocuments.azureedge.net/62f0f207-5440-453c-ba31-b9f99f0128f1.pdf)

critical to achieving the WB goals of poverty eradication and shared prosperity
    - Constraints to achieving poverty eradication and share prosperity, and a set of priorities to overcome these constraints

- Analytical contents (not exhaustive and should be adopted on a country-basis)
    - Frames of the issues/challenges towards the High-Level Outcomes
    - Critical factors for economic growth e.g., constraints and opportunities
    - Critical factors for inclusiveness of growth e.g., welfare of the poor and less well-off
    - Sustainability of the current pattern of growth, wealth distribution and poverty reduction, from the environmental, climate change, social and fiscal aspects
    - Set of priorities for the country

The SCD for Indonesia, for example, draws its pathway to poverty eradication and shared prosperity as shown in Figure 2.[*14]

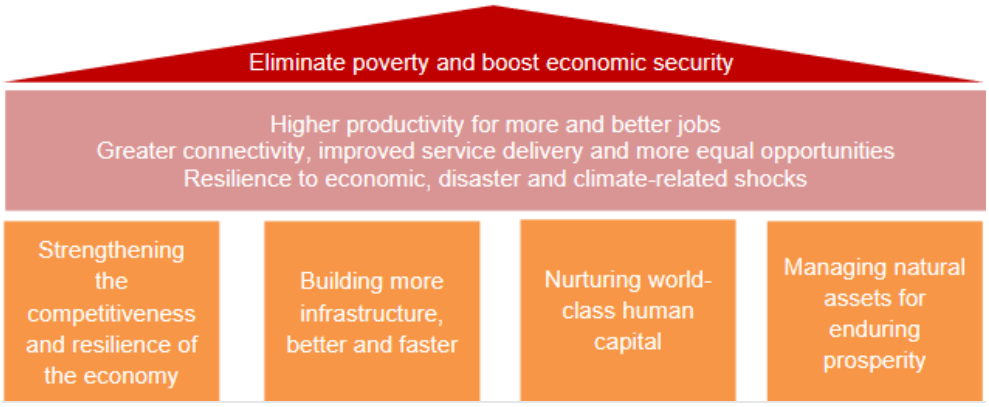


Figure 2. Indonesia's pathway to poverty eradication and shared prosperity

Four high-level outcomes are identified for Indonesia: 1) strengthening the economic competitiveness and resilience, 2) building infrastructure, 3) nurturing human capital, and 4) managing natural assets.

[14] (https://documents1.worldbank.org/curated/en/717421594076964759/pdf/Indonesia-Systematic-Country-Diagnostic-Update.pdf)

b. Country Partnership Framework (CPF): A Case of Indonesia [*15]

An example of CPF objectives is shown below, drawn from Indonesia's case. This CPF is based on the SCP. Four engagement areas of the WB correspond to the SCD high-level outcomes.

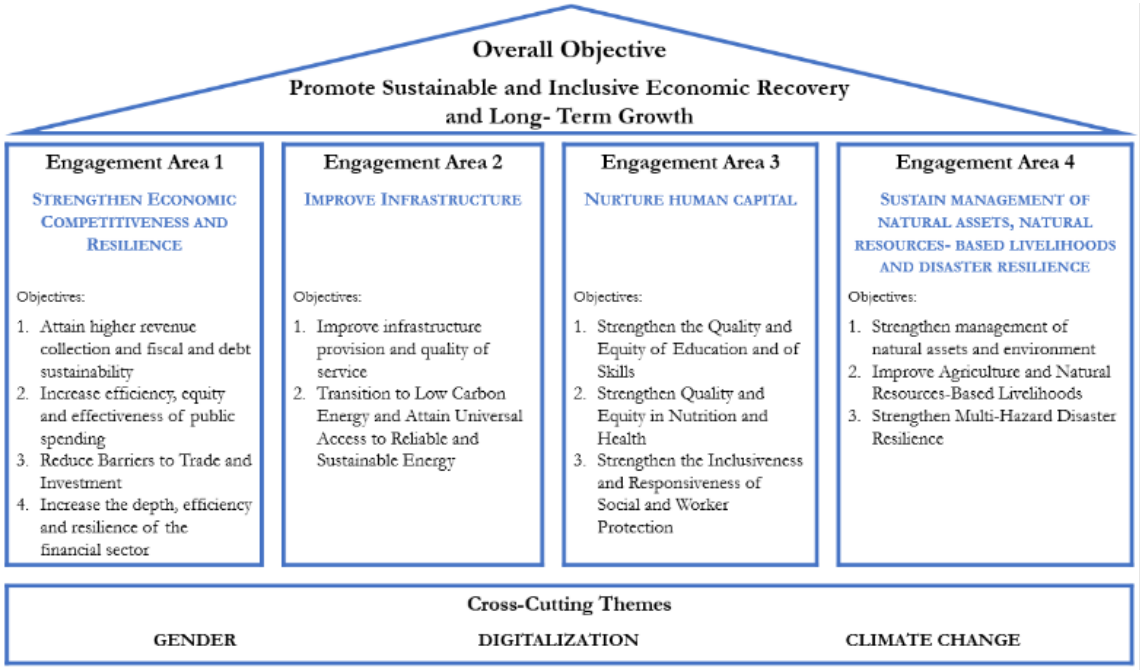


Figure 3. Indonesia's summary of CPF objectives

The cross-cutting themes e.g., gender, digitalization and climate change represent new strategic emphases which are critical for supporting sustainable growth in emerging countries.

■ Mechanisms to Align with the Sustainable Development Goals: Project Examples

In the case of Indonesia's project "Improvement of Solid Waste Management to Support Regional and Metropolitan Cities" (P157245), certain alignment with the Sustainable Development Agenda can be observed in the project results indicators.[*16]

- Project objectives

[15] (https://documents1.worldbank.org/curated/en/306831620760881407/pdf/Indonesia-Country-Partnership-Framework-for-the-Period-FY21-FY25.pdf)

[16] "Project Appraisal Document" (https://documents1.worldbank.org/curated/en/608321575860426737/pdf/Indonesia-Improvement-of-Solid-Waste-Management-to-Support-Regional-and-Metropolitan-Cities-Project.pdf)

- To improve solid waste management services for urban populations in selected cities across Indonesia.

- Project beneficiaries
  - Direct and indirect beneficiaries of the project include residents in the selected cities, including poor and near-poor people, and women.
  - Women and vulnerable groups, who are involved in informal waste-related sectors (waste picking, sorting and disposals), are expected to directly benefit from the project, as the project is expected to incorporate informal workers into formal waste management systems and to identify alternative and/or substitute livelihood.
  - Global and regional benefits are expected from improved environmental conditions, e.g., decreases in waste entering oceans and GHG emissions.

There seem to be implicit references to the Indonesia's country priorities in its CPF objectives, such as gender, marine litters, and climate change, in the list of project beneficiaries.

- Project results indicators
  - Direct results: population with regular household waste collection, landfill capacity, recycled solid waste, etc.
  - Indirect results: financial sustainability of waste management operations, marine plastic waste reduction, improved livability, improved access of women to formal employment and better working conditions, etc.

These results indicators are reviewed by the borrower and the WB regularly. The results progress is available on the WB website dedicated to the project.[*17]

1.1.2 The Green Climate Fund (GCF)

The Green Climate Fund (GCF), as one of the critical implementing arms of the 2015 Paris Agreement, is the world's largest climate fund, mandated to support developing countries raise and realize their Nationally Determined Contributions (NDC) ambitions towards low-emissions, climate-resilient pathways. The GCF invests in transitions of (i) energy and industry; (ii) human security, livelihoods,

[17] (https://projects.worldbank.org/en/projects-operations/project-detail/P157245)

and wellbeing; and (iii) land-use, forests, and ecosystems, through the following approaches:(*18)

> 12. *Transformational planning and programming: by promoting integrated strategies, planning and policymaking to maximise the co-benefits between mitigation, adaptation and sustainable development;*
> 13. *Catalysing climate innovation: by investing in new technologies, business models, and practices to establish a proof of concept;*
> 14. *De-risking investment to mobilize finance at scale: by using scarce public resources to improve the risk-reward profile of low emission climate resilient investment and crowd-in private finance, notably for adaptation, nature-based solutions, least developed countries (LDCs) and small island developing states (SIDS); and*
> 15. *Mainstreaming climate risks and opportunities into investment decision-making to align finance with sustainable development: by promoting methodologies, standards and practices that foster new norms and values.*

■ Project Management Guiding Documents

The GCF policies and guidelines are updated on a regular basis in a compendium, and the latest resource book "GCF Handbook – Decisions, Policies, and Frameworks As agreed by the Board of the Green Climate Fund from B.01 to B.28" is published on its website.(*19) The documents which are relevant to this study include but are not limited to:

a. Investment criteria indicators
b. Environmental and Social Management System
c. Updated Gender Policy and Gender Action Plan of GCF 2020-2023

Brief descriptions of the contents for each document are provided hereafter.

a. Investment Criteria Indicators

Investment criteria indicators guide the GCF stakeholders in the preparation, review, and approval of funding proposals, so that how the project is expected to deliver against the relevant investment criteria can be clearly described.

[18] Quote from GCF website (https://www.greenclimate.fund/about).

[19] (https://www.greenclimate.fund/sites/default/files/document/gcf-handbook-june2021.pdf)

Investment criteria indicators make the preparation and assessment of funding proposals more efficient with consistency and transparency in funding proposal documents. Application of these criteria and indicators must consider the range of various national circumstances and take into account the needs of those developing countries particularly vulnerable to the adverse effects of climate change.[*20] For each of these investment criteria, the project proponent selects only the applicable and relevant sub-criteria and indicators, to be stated in the project proposal template.

[20] (https://www.greenclimate.fund/sites/default/files/document/investment-criteria-indicators.pdf)

Table 7 Investment criteria indicators of GCF (28 February 2019)

Investment criteria	Indicators
1. Impact potential	• **Mitigation impact indicator:** project lifetime emission reductions (in tonnes of carbon dioxide equivalent) • **Adaptation impact indicator:** change in loss of lives, value of physical assets, livelihoods, and/or environmental or social losses due to the impact of extreme climate-related disasters and climate change in the geographical area of the GCF intervention; the number of direct and indirect beneficiaries of the project
2. Paradigm shift potential	• **Necessary conditions indicator:** a vision for paradigm shift as it relates to the subject of the project, outlining how the proposed project can catalyse impact beyond a one-off investment, and a robust and convincing theory of change for replication and/or scaling up of the project results, including the long-term sustainability of the results, or by a description of the most binding constraint(s) to change and how it/they will be addressed through the project
3. Sustainable development potential	• **Co-benefits indicator:** identify at least one positive co-benefit – with an associated indicator, and baseline and target values, disaggregated for men and women if disaggregated data are available domestically – in at least two of the four coverage areas: (a) Economic co-benefits, such as the creation of jobs, poverty alleviation and enhancement of income and financial inclusion, especially among women; (b) Social co-benefits, such as improvements in health and safety, access to education, cultural preservation, improved access to energy, social inclusion, improved sanitation facilities and improved quality of and access to other public utilities such as water supply; (c) Environmental co-benefits, including increased air, water and soils quality, conservation and biodiversity; and (d) Gender empowerment co-benefits outlining how the project will reduce gender inequalities.

Investment criteria	Indicators
	• Where appropriate, proposals should reference the ability of the project to enable the achievement of one or more of the **Sustainable Development Goals**.
4. Needs of the recipient	• **Mitigation and adaptation indicator:** barriers to climate-related finance, describing the country's financial, economic, social, and institutional needs and the barriers to accessing domestic (public), private and other international sources of climate-related finance, as well as how the proposed intervention will address the identified needs and barriers.
5. Country ownership	• **Alignment with nationally determined contributions (NDCs), relevant national plans indicator, and/or enabling policy and institutional frameworks:** Describe how the proposed activities align with the country's NDC and other relevant national plans, and how the funding proposal will help to achieve the NDC or these plans by making progress against specific targets defined in national climate policies and strategies, such as nationally appropriate mitigation actions and national adaptation plans. Outline how the project will help to achieve national development goals and/or climate change policies, and how much the project is supported by a country's enabling policy and institutional framework or includes policy or institutional changes. • **Explanation of engagement with relevant stakeholders, including national designated authorities indicator:** outline how the project proposals were developed in consultation with relevant stakeholders. Engagement with national designated authorities is required.
6. Efficiency and effectiveness	• **Mitigation efficiency and effectiveness indicator: cost per tonne of carbon dioxide equivalent** • **Mitigation efficiency and effectiveness indicator: ratio of co-financing** • **Mitigation indicator: expected rate of return** • **Mitigation and adaptation indicator: application of best practices**

b. Environmental and Social Management System

The GCF requires all project proponents to assess and manage the environmental and social risks associated with their activities and to adopt the International Finance Corporation (IFC)'s approach to risk categorisation, which consists of three risk categories and/or intermediations: low (C or I3), medium (B or I2) and/or high (A or I1) risk. The project proponent is required to provide the rationale behind the chosen category in the funding proposal template.

The GCF requires the proposals of high-risk level (A or I1) and medium risk levels (B or I2) to prepare the environmental and social impact assessment (ESIA) and environmental and social management plan (ESMP), whose requirements are following:

-Potential impacts: **involuntary resettlement**
-Management plan requirements: **Resettlement action plan, resettlement policy framework**

-Potential impacts: **biodiversity**
-Management plan requirements: **Avoid the impacts** on biodiversity and ecosystem services. If not possible, minimize impacts and restore biodiversity and ecosystem services.

-Potential impacts: **indigenous peoples**
-Management plan requirements: **Indigenous Peoples Plan, Indigenous Peoples Planning Framework.**

Table 8 Risk levels and categories

Risk level	Risk category	Intermediation
High*	**Category A** Activities with potential significant adverse environmental and/or social risks, and/or impacts that are diverse, irreversible, or unprecedented.	**Intermediation 1 (I-1)** When an intermediary's existing or proposed portfolio includes or is expected to include substantial financial exposure to activities with potential significant adverse environmental and/or social risks, and/ or impacts that are diverse, irreversible or unprecedented.
Medium*	**Category B** Activities with potential mild adverse environmental and/or social risks, and/or impacts that are few, site-specific, largely reversible, and readily addressed through mitigation measures.	**Intermediation 2 (I-2)** When an intermediary's existing or proposed portfolio includes, or is expected to include, substantial financial exposure to activities with potential limited adverse environmental or social risks and/or impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures; or includes a very limited number of activities with potential significant adverse environmental and/or social risks, and/ or impacts that are diverse, irreversible or unprecedented.
Low/no	**Category C** Activities with minimal or no adverse environmental and/or social risks, and/or impacts.	**Intermediation 3 (I-3)** When an intermediary's existing or proposed portfolio includes financial exposure to activities that predominantly have minimal or negligible adverse environmental and/or social impacts.

* Environmental and social impact assessment (ESIA) and environmental and social management plan (ESMP) are required or the projects with high and medium risk levels.

Stakeholder engagement is a key component of the Environment and Social Policy that applies to all activities financed by GCF. The project proponent is required to provide a stakeholder engagement plan, which is based on five principles of GCF; transparency, accountability, inclusiveness, non-discrimination, and "do no harm". A stakeholder engagement plan needs to include a detailed process for effective engagement with communities and individuals, description of how information will be disclosed, and process for receiving and managing concerns and grievances.

c. Updated Gender Policy and Gender Action Plan of GCF 2020-2023

The Gender Policy and Gender Action Plan will be implemented throughout the GCF project life cycles and operational processes, and this implementation will consist of a set of agreed-upon or predetermined activities. The guidelines will apply to all activities, including private sector activities, and to the GCF project/activity cycle.[*21]

Requirements at the **project preparation stage** include:

- Concept notes and funding proposals submitted for the GCF financing meet the principles and requirements of the Gender Policy,
- A gender assessment, along with appropriate environmental and social assessments (as may be required according to the level of risks and impacts), and a project-level gender action plan are submitted as a part of the funding proposal, and
- Analysis of context and sociocultural factors underlying climate change-exacerbated gender inequality is integrated, and the potential contributions of women and men of all ages to build both individual and collective resilience to climate change are optimised.

The **operational procedures** of the guidelines include:

(a) A mandatory **initial gender assessment** and **a project-level gender action plan**, complementary to the environmental and social safeguards (ESS) requirements will:

[21] (https://www.greenclimate.fund/sites/default/files/document/gcf-b24-15.pdf)

(i) Collect baseline data and determine how the project can respond to the needs and strategic interests of women and men in view of the specific climate change issue to be addressed;

(ii) Identify the drivers of change and the gender dynamics to achieve the project adaptation or mitigation goals;

(iii) Identify and design the specific gender elements to be included in the project activities;

(iv) Estimate the implementation budgets;

(v) Select appropriate and measurable output, outcome, and impact indicators; and

(vi) Design project implementation and monitoring of institutional arrangements.

(b) **Gender-equitable and inclusive stakeholder engagement and consultations** conducted and documented throughout the design and implementation of the project/programme, as follows:

(i) Inclusion of gender perspectives in the application of the mandatory project social and environmental safeguards in line with project-specific requirements of the ESS in accordance with decision B.07/02; and

(ii) Project screening for the integration of gender issues at various stages of the project preparation, appraisal, approval, and monitoring process by the relevant bodies (NDAs/focal points, AEs, and the Secretariat)

Table 9 Example of gender action plan: Gender action plan for FP156: ASEAN Catalytic Green Finance Facility (ACGF): Green Recovery Program[*22]

Activities	Indicators and targets	Timeline	Responsibilities	Costs
Component 1: De-risking funds for low-emission projects				
1. All ACGF GRP sub-projects prepare and implement a gender equality and social inclusion action plan (GESIAP) informed by a gender and social assessment	• Number of GESIAPs prepared • Target 80% of projects, baseline 64% • Interim target 45%	Interim: by Q4/ 2027; By 2039, monitored annually	Facility manager monitors gender performance across portfolio Sub-project gender advisor conducts assessment as part of ADB sub-project processing team	Included in AE fee
2. ACGF GRP sub-projects include green jobs for women and vulnerable groups, applying core labour standards including pay equity and flexible working conditions, as well as female friendly worksites and sex-suitable PPE	• Number of green jobs for women and vulnerable groups across the program Target: 30% green jobs for women and vulnerable groups • Interim target: 9% • Baseline: 0	Annually, measured at ADB sub-project approval and completion Interim by 2027	Government counterpart and sub-project gender advisor	These will be included in project budget

[22] (https://www.greenclimate.fund/sites/default/files/document/fp156-gender-action-plan.pdf)

1.1.3 The Global Environment Facility (GEF)

The Global Environment Facility (GEF) was established 30 years ago on the eve of the Rio Earth Summit to tackle the planet's most pressing environmental problems. The GEF is the largest multilateral trust fund focused on enabling developing countries to invest in nature, and supports the implementation of major international environmental conventions including on biodiversity, climate change, chemicals, and desertification. To help to meet rising challenges the GEF has set a new direction: (*23)

> 1. *Strategically focusing its investments to catalyse transformational change in key systems that are driving major environmental loss, in particular energy, cities and food;*
> 2. *Prioritizing integrated projects and programs that address more than one global environmental problem at a time, building on the GEF's unique position and mandate to act on a wide range of global environmental issues; and*
> 3. *Implementing new strategies and policies to enhance results, including stronger engagement with the private sector, indigenous peoples, and civil society, and an increased focus on gender equality.*

■ Project Management Guiding Documents

The GEF policies and guidelines are published on its website.(*24) The documents which are relevant to this study include but are not limited to:

a. Environmental and Social Safeguard Guidelines,
b. Guidelines on Gender Equality,
c. Guidelines on the Implementation of the Policy on Stakeholder Engagement, and
d. Guidelines on Core Indicators and Sub-indicators.

Brief descriptions of the contents for each document are provided hereafter.

[23] Quote from the GEF website (https://www.thegef.org/about-us). The GEF started its pilot project in May 1991.

[24] "Policies and Guidelines" (https://www.thegef.org/documents/policies-guidelines)

a. Environmental and Social Safeguard Guidelines

Environmental and Social Safeguard Guidelines illustrates the GEF project cycle in five stages: project identification, project preparation, project implementation and completion in case of conflict, and the GEF Secretariat monitoring and reporting. At each stage, the roles and responsibilities of the Agencies and the GEF Secretariat are clearly stated as below.(*25)

Table 10. Roles and responsibilities during Project Identification Form (PIF) preparation

Agency	▪ Screens project to identify environmental and social risks and potential impacts. ▪ Discloses relevant documents and informs/consults Stakeholders on information related to environmental and social risk screening or assessment. ▪ Provides the Secretariat as part of PIF submission: a. Overall preliminary risk rating for project or program b. Types of risks and, if available, risk ratings of identified type(s) c. Any early screening/assessment report(s) and / or any indicative plans/measures to address identified risks, if available
The GEF Secretariat	▪ Assess, in its review, the availability and completeness of the indicative information, including associated documents (if any). ▪ Reports, annually, to the Council on the type and level (risk ratings) of environmental risks and impacts in the GEF projects.

Table 11. Roles and responsibilities during project implementation

Agency	▪ Supervises the implementation of environmental and social management measures. ▪ Monitors the environmental and social risks and impacts. ▪ Provides the Secretariat as part of Mid-Term Review (MTR) submission: a. Progress report on implementation of management measures b. Any revisions to identified risks

[25] "Environmental and Social Safeguards Guidelines (SD/GN/03)" p6
(https://www.thegef.org/sites/default/files/documents/guidelines_gef_policy_environmental_social_safeguards.pdf)

	c. Any revised/new reports
The GEF Secretariat	▪ Reports, annually, to the Council on the type and level of environmental risks and impacts in the GEF projects and programs and the management of such risks and impacts during project implementation.

b. Guidelines on Gender Equality

Guidelines on Gender Equality also illustrate the step-by-step gender measures to be taken according to the project cycle as shown below.

Table 12 Gender considerations in the GEF project cycle(*26)

Programme/Project identification and development	PIF/PFD submission	• Initial gender-responsive stakeholder consultations/analysis • Social/Environmental pre-screening
	CEO endorsement submission	• Stakeholder consultations • Gender analysis • Gender action plan • Stakeholder engagement plan • Sex-disaggregated indicators • Social/Environmental screening
Program/Project implementation, monitoring and reporting	Project implementation reports	• Report on any progress on gender responsive measures • Learning and adaptation
	Mid-term Reviews	• Report on any progress on gender responsive measures, indicators, and intermediate results • Learning and adaptation
	Terminal evaluations	• Evaluate and report on gender responsive measures, results and impact • Lessons learned and best practices

The GEF has introduced a GEF gender tagging system. This system is designed to capture and report the results on gender equality and women's empowerment by

[26] "Guidelines on Gender Equality (SD/GN/02)" p6
(https://www.thegef.org/sites/default/files/documents/Gender_Equality_Guidelines.pdf)

labelling and tracking the GEF projects/programmes that expect to contribute through three main results areas most relevant to the GEF-7 programming framework:[*27]

> *i. Closing gender gaps in access to and control over resources;*
> *ii. Improving women's participation and decision making; and*
> *iii. Contributing to social and economic benefits or services for women.*

The tagging system will require that the GEF Agencies respond to a set of questions as part of completing the PFDs/PIFs and CEO Endorsement/Approval requests. It will further require that the GEF Agencies report on progress and results on gender as part of the annual reports, MTRs, and Terminal Evaluations.

c. Guidelines on the Implementation of the Policy on Stakeholder Engagement

Guidelines on the Implementation of the Policy on Stakeholder Engagement describes the policy principles and requirements step-by-step according to the project cycle as shown below.

Table 13 Stakeholder engagement mandatory requirement in the GEF project cycle[*28]

Project Development	• Dialogue, outreach, and consultations with stakeholders • Identification of roles • Consultation • Contact points for stakeholders
Project Preparation	• Inclusive participation • Review of proposed activities • Identification of partners in project execution • Stakeholder Engagement Plan
Project Implementation	• Implementing the Stakeholder Engagement Plan; Continued Engagement • Monitoring, Evaluation and Reporting

[27] "Guidelines on Gender Equality (SD/GN/02)" p22
(https://www.thegef.org/sites/default/files/documents/Gender_Equality_Guidelines.pdf)

[28] "Stakeholder Engagement Guidelines (SD/GN/01)" p8 adopted.
(https://www.thegef.org/sites/default/files/documents/Stakeholder_Engagement_Guidelines.pdf)

In implementing the stakeholder engagement policy, some specific guidance is noted to achieve the fundamental purposes and principles.[*29]

- Effective and inclusive engagement, meaningful consultation
- Gender equality and women's empowerment
- Culturally appropriate consultations and dialogue with indigenous peoples
- Transparency and access to information

d. Guidelines on Core Indicators and Sub-indicators

Guidelines on Core Indicators and Sub-indicators compile a list of indicators to be monitored and reported for all projects and programmes throughout their cycle from concept stage to completion. The Guidelines were developed to streamline those indicators and to provide clear technical definitions and methodological guidance for each core indicator to facilitate consistent application and reporting across all GEF projects and programmes.[*30]

Eleven core indicators are selected as follows:

1. *Terrestrial protected areas created or under improved management for conservation and sustainable use*
2. *Marine protected areas created or under improved management for conservation and sustainable use*
3. *Area of land restored*
4. *Area of landscapes under improved practices*
5. *Area of marine habitat under improved practices to benefit biodiversity*
6. *Greenhouse gas emissions mitigated*
7. *Number of share water ecosystems (fresh or marine) under new or improved cooperative management*
8. *Globally over-exploited fisheries moved to more sustainable levels*
9. *Reduction, disposal/destruction, phase out, elimination and avoidance of chemicals of global concern and their waste in the environment and in processes, materials, and products*

[29] "Stakeholder Engagement Guidelines (SD/GN/01)" p4
(https://www.thegef.org/sites/default/files/documents/Stakeholder_Engagement_Guidelines.pdf)

[30] "GUIDELINES ON CORE INDICATORS AND SUB-INDICATORS" p3
(https://www.thegef.org/sites/default/files/documents/Results_Guidelines.pdf)

10. *Reduction, avoidance of emission of POPs to air from point and non-point sources*
11. *Number of direct beneficiaries disaggregated by gender as co-benefit of the GEF investment*

To fill in these 11 indicators is a mandatory part of the project application documents. As the project cycle proceeds from initial concept, project preparation, implementation, and monitoring and reporting, these indicators are reviewed systematically and encouraged to make efforts to aggregate the indicator values, in an analogous way to scoring system, where the GEF-financed projects are expected to achieve greater environmental and gender impact.

To note, justification needs to be provided where the project/programme proponents do not provide core indicator targets, except for gender which is a mandatory requirement.

1.2 A preliminary Compilation of the Institutional Mechanisms According to the Project Management Cycle

This part describes the project management cycles of the WB, IFC, GCF and the GEF relevant to mitigation of the environmental and social trade-off impacts and integration of sustainable development agenda. The main findings of this exercise include:

- The institutions make thorough assessment of project impact at very early stages of project formulation, involving elaborate documentation and appraisal before the project approval, so that the environmental and social issues are addressed, and the mitigation measures are planned in a systematic manner; and
- To ensure the SDGs integration, the institutions make it obligatory to develop sustainable development monitoring indicators based on their strategies or frameworks. Such indicators are developed as a part of the project documents, to be monitored and evaluated during the implementation and completion stages.

Gender, one of such sustainable development agenda, is explicitly stated in the project eligibility criteria of the GCF projects, while a gender assessment is a

mandatory component of the GEF project document as the same as the environmental and social risk assessment. This demonstrates commitment of the recently founded international funds to mainstream the SDGs into their projects.

The following descriptions provide an overview of the project cycles and guiding instruments applied at each stage of the project cycle. The comparative tables are laid out to compile the project eligibility criteria, environmental and social risks considered, and monitoring indicators relevant to sustainable development agenda.

1.2.1 Project Cycles and Guiding Instruments

The project cycles of the WB, IFC, GCF and GEF, and guiding instruments applied at each stage are summarised in the Tables 14 to 17, respectively.

Table 14 The WB project cycle and guiding instruments[*31]

1. Identification stage
The borrower and the WB identify the country's main priorities. ● **Systematic Country Diagnostic, Country Partnership Framework** =>To identify the priority agenda of the country's sustainable development The borrower and the WB formulate the initial project concept. ● **Project Information Document** =>To develop the project scope, objectives, risks, alternative scenarios, timetable, etc. ● **Environmental and Social Review Summary** (projects starting after October 2018), **Integrated Safeguards Data Sheet** (older projects) =>To anticipate any environmental and social risks of the project
2. Preparation and appraisal stage
The borrower makes preparation, including technical, economic, social, and environmental assessments and feasibility studies, engineering, and technical designs, etc. The borrower and the WB consider key concerns e.g., stakeholder consultation, gender, climate change, fraud/corruption, grievance mechanisms. ● **Environmental and Social Framework, Environmental and Social Standards** =>To guide the WB's due diligence and to make the borrow responsible to better manage the environmental and social risks. ● **Environmental Assessment, Environmental Action Plan, Indigenous Peoples Plan** =>To document the borrower's management plans for the environmental and social risks The borrower and the WB confirm the expected project outcomes, intended beneficiaries, environmental and social risk management according to the WB standards, and monitoring and evaluation strategy, to be stated in below document. ● Project Appraisal Document (drafts)

[31] (https://projects.worldbank.org/en/projects-operations/products-and-services/brief/projectcycle)

3. Negotiation and Board approval stage
The borrower and the WB finalize the documents for submission to the WB's Board of Executive Directors for consideration and approval. ● **Project Appraisal Document (final)** ● **Program documents** ● **Loan agreements**
4. Implementation stage
The borrower is responsible of the project implementation, including service and goods procurement as well as any environmental and social impact mitigation. ● **Implementation status and results report** =>To monitor the results outcome indicators and overall project progress
5. Completion/Validation & evaluation stage
The WB evaluates the project's outcomes as well as the WB's performance and compliance to the WB policies and standards, and compiles into below report. ● **Implementation completion and results report** Independent Evaluation Group validates the WB's self-evaluation. In addition, the Group conducts the strategically selected project-level evaluations. ● **Project performance assessment reports**

Table 15 IFC project cycle and guiding instruments[*32]

1. Business development
IFC makes initial conversation with the client, to identify the needs and whether there is a role for IFC. ● **IFC's strategic goals** =>To guide IFC's strategic alignment with the SDGs
2. Early review
IFC prepares a description of the project, IFC's role, expected developmental outcome and stakeholders' benefits. IFC identifies any issues foreseen. ● (IFC does not have any specific application form)
3. Appraisal
IFC assesses the full business potential, risks, and opportunities. ● Appraisal items such as financial and economic soundness of the investment, compliance to IFC's **social and environmental Performance Standards**, lessens from prior investments, disclosure, and consultation requirement, etc.
4. Negotiations
After IFC confirms the client's ability and willingness, IFC negotiates the terms and conditions of IFC participation, including the conditions of disbursement, performance and monitoring requirements, action plans, etc.
5. Public disclosure
IFC posts below documents on its Project Information and Data Portal. The length of public disclosure period depends on the environmental category of the project. ● **Summary of Investment Information** ● **Environmental and social review** where applicable
6. Board review and approval
The IFC Board of Directors considers and approves the project after due diligence and public disclosure.
7. Commitment
IFC and the client sign the legal agreement for the investment. The client is responsible to immediately report any serious accidents, and to provide regular monitoring reports. ● **Loan agreement**

[32] (https://www.ifc.org/wps/wcm/connect/corp_ext_content/ifc_external_corporate_site/solutions/ifc-project-cycle)

8. Project supervision and development outcome tracking
The client submits below reports: ● **Regular reports on financial and social/environmental performance, etc.** ● **Key indicators of the project's contribution to development**
9. Evaluation/closing
IFC evaluates the project on a regular basis during the project. IFC closes the project when the investment is fully repaid.

Table 16 GCF project cycle and guiding instruments(*33)

1. Strategy, origination and structuring
Country and entity work programmes ● **Country programmes** =>To be developed by the national designated authorities, submitted to the Secretariat, reviewed, and endorsed by the Climate Investment Committee and the Board ● **Entity work programmes** =>To be developed by the Accredited Entity ● **GCF strategic plan and eight mitigation and adaptation result areas** ● **Six GCF investment criteria** =>To identify highly impactful project ideas which potentially meet all these criteria ● **Sectoral guides** =>To inform the development of funding proposals specific to the sector in question Concept note submission ● **GCF appraisal guidance** ● **Concept note user's guide** ● **Concept note checklist** ● **Concept note** =>To be developed by Accredited Entity in close coordination with National Designated Authority and submitted to the Secretariat (not compulsory but highly recommended)
2.Technical review and appraisal
Funding proposal development ● **Funding proposal** ● **Annex 1: No objection letter** ● **Annex 4: Detailed budget plan** ● **Annex 5: Implementation timetable** ● **Annex 6: Environmental and social safeguard disclosure report** ● **Annex 8: Gender assessment and action plan** ● **Annex 10: Procurement plan** ● **Annex 11: Monitoring and evaluation plan** =>To be developed by the Accredited Entity, submitted to the independent technical advisory panel and the Board for approval by the Secretariat ● **Sustainability guidance note: designing and ensuring meaningful stakeholder engagement on GCF-financed projects** ● **Integrated results management framework (IRMF)**

[33] GCF Project Activity Cycle (https://www.greenclimate.fund/project-cycle)

- **Guidance note to support the completion of the IRMF elements of the revised funding proposal**
- **Sectoral guides**

=>To stipulate the GCF compliance standards

Funding proposal review

- **Funding proposal (complete package)**

=>To undergo technical review by the Secretariate, appraisal by the Office of Risk Management and Compliance and Technical Advisory Panel.

3. Approval and legal arrangement

Board approval

- **Funding proposal**

=>To be approved by the Board

Legal arrangement

- **Funded activity agreement**

=>To be prepared by the Secretariat and negotiated with the Accredited Entity

4. Implementation

Monitoring for performance and compliance

- **GCF accreditation standards**

=>To make an annual self-assessment of compliance with the GCF fiduciary standards, environmental and social safeguards and Gender Policy for the Accredited Entity

- **Annual performance report**

=>To be submitted by the Accredited Entity

Adaptive management if risk flags arise

- **Request for extension of deadline**
- **Restructuring proposal**

=>To be submitted by the Accredited Entity if necessary to modify the project

Evaluation, learning and project closure

- **Project completion report**

=>To be submitted by the Accredited Entity

- **Results handbook (draft)**
- **Results management framework** for project level evaluations

=>To apply all GCF projects the same approach and generate consistent data that can be aggregated and compared across the entire GCF portfolio

Table 17 The GEF project cycle and guiding instruments(*34)

1. Project concept development

The GEF Agency prepares below document and submits to the GEF Secretariat. The GEF Agency may request a Project Preparation Grant at the same time.

- **Project Information Form (PIF)**

=>To develop the concept of the project

2. PIF clearance or PPG endorsement by CEO

The GEF Secretariat reviews the PIF taking into consideration the GEF strategies, policies and guidelines.
The Agency revises the PIF to respond to the Secretariat's comments.
The CEO decides whether to include it in a Work Program.
The Scientific and Technical Advisory Panel screens the PIF.

- **PIF**

[34] Project and Program Cycle Policy
(https://www.thegef.org/sites/default/files/documents/Project_Program_Cycle_Policy.pdf)

3. "Work Program" inclusion approval by Council
The Council decides whether to approve or not the project.
4. Project proposal preparation
After PIF approval, the Agency submits to the Secretariat a set of associated Project Document. The Secretariat reviews the Project Document, taking into consideration the relevant GEF strategies, policies and guidelines, including the comments provided by the Council, STAP, etc. and make comments. The Agency responds to the Secretariat's comments and revises the Project Document, as necessary. ● **Project Document**
5. Council review, CEO endorsement
Once the Secretariat determines the project proposal to be satisfactory, the CEO endorses the project. For any major amendments, the Secretariat circulates the Final Project Document to the Council for review. ● **Project Document** After CEO endorsement, the Secretariat posts the project documents on the GEF website.
6. Implementation, monitoring and evaluation
Implementation begins following CEO endorsement and Agency approval. The Agency is responsible for project implementation, ensures project-level monitoring and evaluates the project activities consistent with the GEF Monitoring and Evaluation Policy. The Agency submits the terminal evaluation reports to the GEF Independent Evaluation Office. The Agency reports on financial closure to the GEF Trustee. ● **Project Document** ● **GEF Monitoring and Evaluation Policy** The monitoring and learning activities at the portfolio level is guided by the GEF corporate and focal area results frameworks. The Secretariat monitors and reports to the Council on overall GEF project cycle efficiency and develops Guidelines on GEF Result-Based Management in consultation with the Agency and STAP as needed. ● **GEF corporate and focal area results frameworks** ● **Guidelines on GEF Results-Based Management**

(Note) Based on full-sized project, which is the most elaborate project type. Other project types are medium-sized project, enabling activities and programs.

1.2.2 Preliminary Compilations of the Institutional Mechanisms

Based on the summary information on project cycles of the four institutions, their environmental and social risk concerns reflecting the potential trade-off impacts of the projects are laid out in Table 18. The table is structured according to the SDGs categorised into economy, society, ecosystem, and others, asone of many outstanding taxonomy methodologies. The aim is to capture some, if not all, exhaustive trade-off relations between the SDGs and environmental and social risks pertinent to development projects. Such environmental and social risks are rightfully documented in the institutional policy instruments, which are referenced in this Table. It should be noted that these policy instruments stipulate mitigation

measures to be taken to avoid or minimize such trade-off impacts, and it is hoped that such information is further compiled for future reference.

Following the environmental social risks, Tables 19 and 20 compile the project eligibility criteria relevant to the SDGs as these criteria reflect the priority contribution targets, and project monitoring and evaluation indicators to verify the contribution. It is hoped that these data capture the synergy effects of the development projects considering the SDGs, as well as the institutions' efforts to make evidence-based performance evaluations against their contributions to sustainable development.

Table 18. Environmental and social risk concerns reflecting the potential trade-off impacts of the projects

SDGs (Note 1)	**Institutions** (Note 2)	**Environmental and social risk concerns**
Economy, such as; SDGs 7-sustainable energy, SDGs 8-employment/ economic growth SDGs 9-industry/ infrastructure/innovation, SDGs 11-sustainable cities, SDGs 12-circular economy	WB	-Resource efficiency and pollution prevention (also in society and ecosystems) -Community health and safety (also in society)
	IFC	-Resource efficiency and pollution prevention (also in society and ecosystems) -Community health, safety and security (also in society)
	GCF	(Not yet available in this preliminary compilation exercise)
	GEF	-Resource efficiency and pollution prevention (also in society and ecosystems) -Community health, safety and security (also in society)
Society, such as; SDGs 1-poverty, SDGs 2-hunger, SDGs 3-health/welfare, SDGs 4-education, SDGs 5-gender, SDGs 6-clean water/sanitation, SDGs 10-equality, SDGs 16-peace	WB	-Labour and working conditions -Resource efficiency and pollution prevention (also in economy and ecosystems) -Community health and safety (also in economy) -Land acquisition, restrictions on land use and involuntary resettlement -Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities -Stakeholder engagement and information disclosure
	IFC	-Labour and working conditions -Resource efficiency and pollution prevention (also in economy and ecosystems) -Community health, safety and security (also in economy) -Land acquisition and involuntary resettlement -Indigenous peoples
	GCF	-Equality and non-discrimination -Stakeholder engagement and disclosure -Gender -Zero-tolerance of sexual exploitation, abuse and harassment -Labour and working conditions -Indigenous peoples -Human rights

SDGs (Note 1)	**Institutions** (Note 2)	**Environmental and social risk concerns**
	GEF	-Disadvantaged or vulnerable individuals or groups -Disability inclusion -Gender -Land use and involuntary resettlement -Indigenous peoples -Resource efficiency and pollution prevention (also in economy and ecosystems) -Labour and working conditions -Community health, safety and security (also in economy)
Ecosystems, such as; SDGs 13-climate action, SDGs 14-aquatic ecosystems, SDGs 15-terrestrial ecosystems	WB	-Resource efficiency and pollution prevention (also in economy and society) -Biodiversity conservation and sustainable management of living natural resources
	IFC	-Resource efficiency and pollution prevention (also in economy and society) -Biodiversity
	GCF	-Biodiversity
	GEF	-Climate change and disaster risks -Biodiversity conservation and sustainable management of living natural resources -Resource efficiency and pollution prevention (also in society and ecosystems)
Other sustainable development agenda, such as; SDGs 17-partnership	WB	-Cultural heritage
	IFC	-Cultural heritage
	GCF	-Continuous improvement and best practices -Knowledge-sharing -Compliance with applicable laws
	GEF	-Cultural heritage

(Note 1) Modified from the "SDGs wedding cake" shown in the GEF website "Partnership for Implementing the 2030 Agenda" (https://www.thegef.org/sites/default/files/publications/GEF%20Assembly_Partnerships%20Factsheet_6.19.18.pdf).

(Note 2) Information based on: The WB Environmental and Social Framework. (https://thedocs.worldbank.org/en/doc/837721522762050108-0290022018/original/ESFFramework.pdf); IFC Performance Standards (https://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Sustainability-At-IFC/Policies-Standards/Performance-Standards); GCF Revised Environmental and Social Policy (https://www.greenclimate.fund/sites/default/files/document/revised-environmental-and-social-policy.pdf); and The GEF Policy on Environment and Social Safeguards (https://www.thegef.org/sites/default/files/documents/gef_environmental_social_safeguards_policy.pdf).

Table 19. Project eligibility criteria relevant to the SDGs

SDGs (note 1)	**WB** (note 2)	**IFC** (note 3)	**GCF** (note 4)	**GEF** (note 5)
Economy, such as; SDGs 7-sustainable energy, SDGs 8-employment/ economic growth SDGs 9-industry/ infrastructure/innovation, SDGs 11-sustainable cities, SDGs 12-circular economy	-Urban and rural development	-Employment creation and economic growth -Sustainable cities and communities -Infrastructure -Financial inclusion	-Economic co-benefits	**-Chemicals and waste** (also in society) **-Land use/restoration** (also in society and ecosystems) -Sustainable cities
Society, such as; SDGs 1-poverty, SDGs 2-hunger, SDGs 3-health/welfare, SDGs 4-education, SDGs 5-gender, SDGs 6-clean water/sanitation, SDGs 10-equality, SDGs 16-peace	**-Poverty eradication** **-Prosperity sharing** -Human development and gender -Social development and protection	**-Poverty eradication** **-Prosperity sharing** -Gender equality -Environmental and social sustainability (also in Ecosystem) -Agriculture -Health and education	-Social co-benefits -Gender empowerment co-benefits	**-Chemicals and waste** (also in economy) -Food systems **-Land use/restoration** (also in economy and ecosystems)
Ecosystems, such as; SDGs 13-climate action, SDGs 14-aquatic ecosystems, SDGs 15-terrestrial ecosystems	-Environment and natural resource management	-Environmental and social sustainability (also in Society) -Climate change adaptation and mitigation	**-Climate change mitigation & adaptation** -Environmental co-benefits	**-Biodiversity** **-Climate mitigation** **-Land degradation** -International waters **-Land use/restoration** (also in economy and society) **-Sustainable forest management**

SDGs (note 1)	**WB** (note 2)	**IFC** (note 3)	**GCF** (note 4)	**GEF** (note 5)
Other sustainable development agenda, such as; SDGs 17-partnership	-Economic policy -Financial sustainability -Private sector development -Public sector development	-Partnership with private investors to mobilize new financial resources	-Paradigm shift -Barriers to climate-related finance -Alignment with climate policies -Stakeholder engagement	-Public involvement

(Note 1) Modified from the "SDGs wedding cake" shown in the GEF website "Partnership for Implementing the 2030 Agenda"

(Note 2) The WB overarching goals of poverty eradication and shared prosperity (bold letters), and its project themes are applied here.
(https://projects.worldbank.org/en/projects-operations/project-theme)

(Note 3) IFC's strategic alignment with the SDGs are applied here. The WB overarching goals (bold letters) are also the same for IFC, being a WB Group member.
(https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/development+impact/sdgs)

(Note 4) GCF overarching mission is climate change mitigation/adaptation (bold letters). The GCF investment criteria indicators are also applied here.
(https://www.greenclimate.fund/projects/investment-framework)

(Note 5) The GEF is the financial mechanisms for five environmental conventions i.e., Biodiversity, Climate Change, Desertification, POPs and Mercury (bold letters). The GEF priorities as described as a part of the eligibility criteria are also applied here. (https://www.thegef.org/projects-operations/how-projects-work)

Table 20. Monitoring and evaluation indicators relevant to the SDGs

Economy, such as; SDGs 7-clean energy, SDGs 8-employment, SDGs 9-industry/infrastructure/innovation	
IFC	-Employees directly or indirectly hired in the project (Number) -Sustainable agribusiness --farmers reached during the project (Number) --total sales (Unit cost) -Energy --power production by energy types (MWh) --households connected to power grid (Numbers) -Housing --new residential dwellings constructed or improved (Number) -ICT --subscriptions to data communication services (Numbers) -Industries and services --purchase, sales, investment of private sector (Monetary unit) --new firms entering market (Number) -Transportation --passengers (Persons), shipment of goods (Volume/weight)
GCF	-Value of physical assets made more resilient to the effect of climate change and/or more able to reduce GHG emissions --Losses of economic assets due to the extreme climate disasters (Value in USD)
GEF	-Toxic chemicals reduced, such as POPs, mercury, HCFC --reduced use, stock, environmental emissions (Metric tons) --improved regulatory measures, abatement technologies (Number) -Restored land --restored agricultural land, forest, natural grass land, wetlands, etc. (Hectares)
Society, such as; SDGs 1-poverty, SDGs 2-hunger, SDGs 3-health/welfare, SDGs 4-education, SDGs 5-gender, SDGs 6-clean water/sanitation, SDGs 10-equality, SDGs 16-peace	
IFC	-Sustainable agribusiness --farmers reached during the project (Number) --total sales (Monetary unit) --harvest, yield (Tons) -Health

	--patients served (Number) -Waste and sanitation --waste disposed of, wastewater treated (Volume/weight) -Water --potable water supplied (Volume/weight)
GCF	-Direct and indirect beneficiaries reached --Women/men adopting improved, new climate-resilient livelihood options, with improved food security, with more climate-resilient water security, covered by new early warning, with strengthened climate resilience, losses of lives due to the extreme climate disasters (Persons)
GEF	-Toxic chemicals reduced, such as POPs, mercury, HCFC --reduced use, stock, environmental emissions (Metric tons) --improved regulatory measures, abatement technologies (Numbers) -Women/men project beneficiaries (Persons) -Restored land --restored agricultural land, forest, natural grass land, wetlands, etc. (Hectares)
Ecosystems, such as; SDGs 13-climate action, SDGs 14-aquatic ecosystems, SDGs 15-terrestrial ecosystems	
GCF	-GHG emissions reduced, avoided, or removed / sequestered --Annual energy saving, installed energy storage capacity, installed renewable energy capacity, renewable energy generated (MWh) --Improved low-emission vehicle fuel economy (m3-fuel/km) -Natural resource areas improved e.g., lower emission and/or climate-resilient management --Terrestrial forest, non-forest, freshwater and coastal marine areas (Hectares) --Sustainably managed livestock (Numbers) --Sustainably managed fish stock (Tons)
GEF	-Terrestrial and marine protected areas --newly created (Hectares) --under improved management (Hectares) -Restored land --restored agricultural land, forest, natural grass land, wetlands, etc. (Hectares) -Marine habitat --fisheries meeting national or international certification with diversity considerations (Numbers) --large marine ecosystems with reduced pollution (Numbers) --marine litter avoided (Amount) -GHG mitigation --emissions avoided, carbon sequestered (Metric tons of CO2 equivalent)

	--energy saved, renewable energy installed (Metric tons of CO2 equivalent) -Shared water ecosystems (fresh or marine) under new or improved management (Numbers) -Over-exploited fisheries improved (Numbers)
Other sustainable development agenda, such as; SDGs 17-partnership	
GCF	-Scale; significant increase in quantifiable results within and beyond the scope of the investment --low, medium, or high score -Replicability; key structural elements of an investment are exported elsewhere within the same sector and/or other sectors, regions or countries --low, medium, or high score -Sustainability; the results of an investment are sustained beyond completion, through the creation of a structural and/or financial base, as well as through climate resilient practices --low, medium, or high score -Contribution to institutional and regulatory framework for low-emission/climate resilient development pathway -Contribution to market development/transformation at the sectoral, local or national level -Contribution to effective knowledge generation and learning process, use of good practices, methodologies, and standards --(qualitative evaluation)

(Notes) IFC indicators are based on "Harmonized Indicators for Private Sector Operations" of which IFC is a member (https://indicators.ifipartnership.org/wp-content/uploads/2014/06/harmonization_mou_14pg.pdf, https://indicators.ifipartnership.org/wp-content/uploads/2015/12/100515-Harmony-Addendum-FINAL-with-signatures.pdf).
GCF indicators are based on "Integrated Results Management Framework" (https://www.greenclimate.fund/document/integrated-results-management-framework) and "draft results handbook" (https://www.greenclimate.fund/document/results-handbook).
The GEF indicators are based on "GUIDELINES ON CORE INDICATORS AND SUB-INDICATORS"
(https://www.thegef.org/sites/default/files/documents/Results_Guidelines.pdf).

1.3 Case Studies on Synergies and Trade-offs of Climate Action

Background

With an expectation to scale up impacts on sustainability, climate actions with more synergy effects are encouraged among national and local governments(*35), international development partners, and other stakeholders. There has been growing interests on how such integrated efforts can be designed and developed in the context of sustainability development goals (SDGs). For example, the 6th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC AR6), synergies and trade-offs of climate action have been studied. With a reference to recent practices by national and local governments and international development partners, this chapter provides some case studies on synergies and trade-offs and suggests how climate action should be implemented in a more sustainable manner.

1.3.1 Cross Over of Climate Action and Other Sustainability Related Efforts

- Synergies

Table 21 shows the types of climate actions (GHG reduction), co-benefit effects and combination cases with other sustainable development efforts. Synergies of positive impact of SDGs are realized when more than two interventions are made in an integrated manner. They are often called as co-benefits or ancillary benefits in case where benefits are realized in addition to the intended achievement. For example, energy efficiency efforts usually provide co-benefit of reducing cost of fuel inputs. Synergy effects can be expected in cases when multiple sustainable development efforts are combined. For example, a program supports installing photovoltaic (PV) panels for GHG emissions reduction. If such a program sets a target at public housing for a lower income community, it creates a synergy impact to support improvement of the household's economy by giving a free access to the generated power. A single effort to install PV only addresses climate change mitigation. However, by considering the poverty issue, a project can be designed to generate synergies for climate and other benefits in an integrated manner.

[35] Case of Cape Town South Africa on energy efficient home and healthy residents (https://c40.my.salesforce.com/sfc/p/#36000001Enhz/a/1Q000000YPMG/J1b.6lovBDoBH_3kAORATPdp.pYXCB2GBfdCTVrIykA)

Table 21. Types of climate action, co-benefits, and synergy cases with other sustainable development efforts

	Types of climate action (GHG reduction)	Co-benefits other than GHG reduction	Synergy cases by combination with other sustainable development efforts
1	Energy efficiency	● Reducing cost of fuels ● Increasing energy security by reducing dependence on imported fuels	✧ Industrial productivity/quality improvement by reviewing production process (Also, often introduced as a single approach)
2	Renewable energy (solar/wind/hydro power)	● Reducing air pollution substances ● Reducing expenditure for health control ● Increasing energy security by reducing dependence on imported fuels ● Providing additional revenue for installer	✧ Feed-in Tariff Scheme ✧ Energy supply increase for national grid system ✧ Energy supply for target groups (e.g., impoverished population) ✧ Recognized as a tourism resource for a new scenery (Also, often introduced as a single approach)
3	Public transport	● Reduction of air pollution substance ● Traffic management ● Reducing fuel consumption ● Increasing mobility	✧ Integrated urban transportation ✧ Preferential treatment for elderly and junior population for access to public transportation
4	New type of vehicles (Electric, hydrogen, and hybrid)	● Reduction of air pollution substance ● Reducing noise pollution	✧ Utilizing vehicle batteries for disaster preparedness ✧ Utilizing batteries for stable electric supply for renewable energy
5	Waste segregation	● Volume reduction ● Promoting 3R (reuse-reduce-recycle) ● Cost recovery from recyclables (metals, glasses etc)	✧ Community-based waste segregation and community building ✧ Education for children
6	Waste management (Aerobic and semi-aerobic fermentation)	● Volume reduction ● Early stabilization of landfill ● Avoiding landfill fire ● Avoiding odour	✧ Community-based waste composting and community building ✧ Education for children
7	Waste-to-Energy (Incineration and biogas)	● Volume reduction ● Generating energy (electricity or heat)	✧ Development and operation of recreation facilities in municipality
8	Afforestation/Reforestation	● Increasing resilience to storms or other natural disaster ● Avoiding land degradation/flash waters ● Increasing biodiversity (if so designed)	✧ Agro-forestry project ✧ Enhancement of aqua culture in wetlands by mangrove planting (Also, often introduced as a single approach)

	Types of climate action (GHG reduction)	Co-benefits other than GHG reduction	Synergy cases by combination with other sustainable development efforts
9	Green urban planning	● Reducing heat exposure to urban/residential areas, buildings ● Increasing value of real estate assets	✧ Urban development projects for increasing human amenity ✧ Programme for green ratio

■ Trade-Off

Table 22 shows types of climate actions (GHG reduction), and the corresponding ancillary negative effects that hinder other sustainable development efforts.

Table 22 Types of climate action and ancillary negative effects that hinder other sustainable development efforts

	Types of climate action (GHG reduction)	Ancillary negative effects that hinder other sustainable development efforts
1	Renewable energy (solar/wind/hydro power)	● Destruction of forests and other natural environment ● Negative impacts for biodiversity ● Competition in land-use and water resources with other purpose (e.g., agriculture and disaster prevention/adaptation to climate change) ● Increased e-waste (e.g., PV) and associated environmental pollution
2	Biofuels (biodiesel, bioethanol, and biomass)	● Competition with food production ● Deforestation due to land use change ● Inter-house air pollution (biomass)
3	New type of vehicles (Electric, hydrogen, and hybrid)	● Increased e-waste (e.g., batteries) and associated environmental pollution
4	Waste-to-Energy (Incineration and biogas)	● Environmental pollution (if sufficient environmental standards/sufficient technologies are not applied)
5	Afforestation/Reforestation	● Negative impacts on biodiversity (if sufficient standards are not applied)

1.3.2 Case Studies

To illustrate good practices of synergies, the following case studies have been presented. Case studies of trade-offs are not widely available, they are described briefly in the above section.

Case 1) Warmer and Greener Homes for Low-Income Households in London, UK

The City of London provided grants of 5,000-25,000 pounds to 14,700 low-income households. The program supports the installation of heat pumps, solar panels, and energy efficient walls, while providing advisory services for improvement of energy consumption. The efforts were introduced to alleviate the impact of soaring inflation and energy prices on low-income communities. The effort is also in line with London's commitment toward carbon neutrality in 2050. In total 43 million pounds will be disbursed from the London's Mayor's Fund.(*36)

(Note)Cape Town, South Africa implemented a similar scheme to promote energy efficient homes and residents' well-being(*37) *.*

Case 2) Subsidy Program for Clean Energy Vehicle Introduction for Climate Mitigation and Disaster Preparedness

The Ministry of the Environment, Japan (MOE) and the Ministry of Economy, Trade, and Industry (METI), Japan are supporting purchases of EV, plug-in hybrid vehicles, fuel-cell vehicles, and electric bikes for the purpose of promoting climate change mitigation. Based on experiences from the East Japan Great Earthquake, EV batteries can function as emergency electric source during natural disasters. For these reasons, these vehicles are also expected to support the disaster preparedness.(*38)

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[36] (https://www.london.gov.uk/press-releases/mayoral/mayor-commits-43m-to-warmer-homes-programme), (www.energylivenews.com)

[37] (https://cdn.locomotive.works/sites/5ab410c8a2f42204838f797e/content_entry5ab410fb74c4833febe6c81a/5c4205c65f26f20019437 1b9/files/Cape_Town.pdf?1547830726)

[38] (http://www.cev-pc.or.jp/)

Case 3) Affordable Electric Vehicle Car Sharing with BlueLA, Los Angeles, United States

The city of Los Angeles has experience with a rapid transformation to electric vehicles in terms of local mobility. Positive effects of GHG emissions reduction have been realized; however, lower income population has not been able to catch up with this trend. Los Angeles City has implemented the BlueLA projectto support lower income communities with improved access to EV by a sharing scheme. To facilitate resident engagement, “Street Ambassadors” have been deployed by the target community.(*39)

Case 4) Community Rebuilding/Regeneration in Minamata City, Japan, through Waste Separation Activities

Minamata City suffered from mercury contamination caused by industrial pollution. As some of the residents were victims of mercury poisoning and others were employed in the mercury-emitting industrial plant, the local community became embroiled in a long dispute. To alleviate tensions, Minamata City initiated community-based waste separation activities involving different groups of residents. While these activities contributed to the reduction of waste, they also helped to rebuild and regenerate the damaged community.(*40)

Case 5) Fukuoka Method Semi-Aerobic Landfill

The City of Fukuoka and Fukuoka University developed a semi-aerobic landfill management method, which avoids methane (CH4) emission and has multiple co-benefits such as the avoidance of odour and landfill fires, as well as early stabilization in a cost-efficient manner.

The Fukuoka method has been promoted in many developing countries, such as China, Kenya, Malaysia, and Samoa.(*41)

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[39] (https://c40.my.salesforce.com/sfc/p/#36000001Enhz/a/1Q000000YPMR/4Cl4SGkGjXai.NwF910RJKg07cLKn3yRCZh0RMj6YoI)

[40] (https://www.env.go.jp/content/900414989.pdf)

[41] (https://www.jstage.jst.go.jp/article/mcwmr/20/6/20_308/_pdf/-char/ja), (https://toyokeizai.net/articles/-/99305?page=5)

Case 6) Mitigating Heat Island Effect by Green Space Configuration in Singapore and Malaysia

Due to rapid urbanization, most of the megacities in Southeast Asia have suffered from the heat island effect. Urbanized areas tend to have higher temperatures than outlying areas. Structures such as buildings, roads, and other infrastructure absorb and re-emit solar heat at higher rates than the natural environment (e.g., forests and water bodies) and can lead to heat-related illness in vulnerable people and increased power usage. Singapore and Malaysia implemented urban development plans which integrate the effective use of green areas to avoid overheating and in turn, increase amenity. (*42)

(Note) New York City's Cool Neighbourhoods is a similar initiative, with the additional engagement of local communities.(*43)

[42] (https://geoscienceletters.springeropen.com/articles/10.1186/s40562-019-0134-2), (https://static1.squarespace.com/static/586dfed8b3db2bba412a8919/t/5d33a948b5c4a100011cb82d/1563666897377/CS_Catalogue_of_Strategies_online.pdf)

[43] Cool Neighborhoods strategy for tackling the urban heat island effect in its most vulnerable communities. (https://c40.my.salesforce.com/sfc/p/#36000001Enhz/a/1Q000000YPML/g5ewhbPm8QfBpVVuIk_.GC6t.xPGAmgvvEXxVx4Pmds)

2. Outreaching Knowledge Related toClimate Actions and the SDGs

OECC collaborated with UNU-IAS for the following outreach activities: a side event at the UNFCCC COP26 (4 November 2021);a joint seminar organised by the GCF, MOFA, UNDP, and UNU-IAS (8 July 2022); and a side event at the Climate & SDGs Synergy Conference (19 July 2022).

2.1 COP26 Side Event on Carbon Neutrality and the SDGs – A UNU Forum

On 4 November 2021, a side event of COP26 engaged leading experts to discuss challenges and good practices for achieving carbon neutrality by 2050 and the SDGs. Organised by UNU-IAS and the Overseas Environmental Cooperation Center, Japan (OECC), the event Carbon Neutrality and the SDGs – A UNU Forum was held at the COP26 Japan Pavilion in Glasgow, UK. An audience of approximately 20 persons gathered at the Japan Pavilion to attend this event. The event was also streamed online.

2.1.1 About the Programme

To avoid the climate crisis by limiting the global temperature rise to 1.5 degrees Celsius above preindustrial levels, many countries have committed to achieving carbon neutrality by the middle of this century. Carbon neutrality requires a transformation of economic and social systems and commitment across society to drastic action by all sectors and actors. In this context, action towards carbon neutrality requires better understanding of social challenges such as declining regional economies, widening disparities, and ageing populations, and mechanisms to address these challenges as part of action for carbon neutrality.

Programme of Carbon Neutrality and the SDGs – A UNU Forum

Opening Remarks	● Prof. Shinobu Yume Yamaguchi (Director, UNU-IAS) ● Mr. Yutaka Shoda (Vice-Minister for Global Environmental Affairs, Ministry of the Environment, Japan) ● Prof. Kazuhiko Takemoto (President, OECC Japan) [Video message]
Framing Presentation	Dr Akio Takemoto (Programme Head, UNU-IAS)
Panel Discussion	1. Carbon Neutrality and Social Agenda Moderator: Dr Akio Takemoto 2. Role of Education for the Paris Agreement

	Facilitator: Dr Jonghwi Park (Academic Programme Officer, UNU-IAS) ● Dr Hak Mao (Ministry of Environment, Cambodia) ● Ms. Kelly Takaya King (Councilmember of Maui County, ICLEI, USA) ● Prof. Yukari Takamura (University of Tokyo) ● Mr. Alejandro Kilpatrick (UNFCCC) ● Ms. Won Jung Byun (UNESCO) ● Ms. Patricia Marcos Huidobro (GEF) ● Mr. Marlex Olandiz Tuson (UNU-IAS MSc student) ● Ms. Josephine Opoku Boateng (UNU-IAS MSc student)
Closing Remarks	Prof. Shinobu Yume Yamaguchi (Director, UNU-IAS)

2.1.2 Summary of Discussions

Participants explored the social dimensions of the transition to carbon neutrality, which requires drastic action by all sectors and actors, as well as how education and capacity building can advance implementation of the Paris Agreement on climate change.

Discussion also focused on a new UNU-IAS initiative to develop a postgraduate degree specialisation focused on the Paris Agreement. To be delivered from Autumn 2023, it will educate students and experts from across the globe, developing skills and knowledge to play a leading role in implementing the Paris Agreement. It will build on the existing UNU-IAS postgraduate degree programmes established in 2010.

Opening the event, Shinobu Yume Yamaguchi (Director, UNU-IAS) underlined the importance of the 2030 Agenda's principle of "leaving no one behind" in the pursuit of the drastic social and economic transformation to carbon neutrality. Emphasising the essential role of education in this transformation, she announced the planned UNU-IAS postgraduate degree specialisation as the first of its kind to be offered by a UN organisation.

Yutaka Shoda (Vice-Minister for Global Environmental Affairs, Ministry of the Environment of Japan; MOEJ) expressed appreciation for the new initiative of UNU-IAS, noting that it would generate synergy with the MOEJ's commitment to capacity-building for climate mitigation actions.

In a video message, Kazuhiko Takemoto (President, OECC) underlined the importance of taking all necessary actions through an integrated approach to realise a decarbonised and resilient society, minimising the trade-off between the climate mitigation development projects and its potential adverse impacts.

A framing presentation by Akio Takemoto (Programme Head, UNU-IAS), it was noted that social justice and equity were core aspects of climate-resilient development pathways for transformational societal change. While actions for carbon neutrality and social agenda can have multiple synergies, drastic actions could generate trade-offs such as energy inequity, which need to be addressed.

The first of two panel discussions, moderated by Dr Takemoto, focused on possible social co-benefits from climate mitigation actions, and necessary interventions and institutional mechanisms to address energy justice and maximise synergies between carbon neutrality and SDGs. Panellists underlined the importance of local communities in climate mitigation, noting that it could create social co-benefits in economic growth and social development. Local actions bring greater benefits to communities and advance social justice in energy, employment, and health, among other areas. The discussion emphasised that institutional mechanisms such as impact evaluation, targeted actions, and capacity building, were necessary to realise synergies between carbon neutrality and the SDGs.

The second panel discussion, facilitated by Dr Jonghwi Park (Academic Programme Officer, UNU-IAS), considered the role of education for the Paris Agreement, and explored further partnerships between the participating organisations. Panellists welcomed the UNU-IAS postgraduate specialisation as a rare and valuable opportunity for students to learn through a practical and multidisciplinary approach. The programme will engage students in practical projects led by practitioners dealing with the Paris Agreement and create research networks with other partners including universities and research institutes.

To close the event, Prof. Yamaguchi commended the forward-looking discussion as a valuable contribution to global efforts towards carbon neutrality and a sustainable planet and looked forward to further collaboration to develop and launch the new UNU-IAS postgraduate specialisation.

Prof. Shinobu Yume Yamaguchi (Director, UNU-IAS)

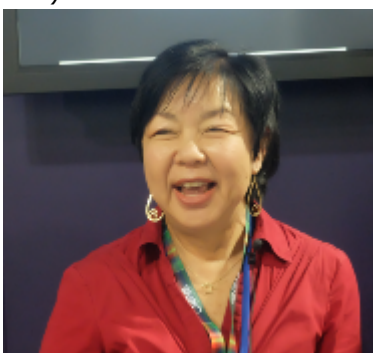
Mr. Yutaka Shoda (Vice-Minister for Global Environmental Affairs, Ministry of the Environment, Japan)

Prof. Kazuhiko Takemoto (President, OECC Japan) [Video message]

Dr Akio Takemoto (Programme Head, UNU-IAS)

Dr Jonghwi Park (Academic Programme Officer, UNU-IAS)

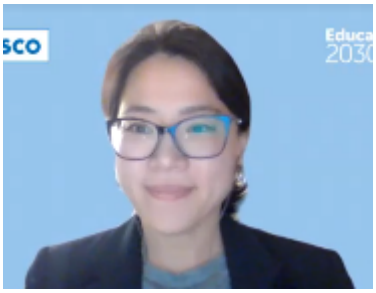
Dr Hak Mao (Ministry of Environment, Cambodia)



Ms. Kelly Takaya King (Councilmember of Maui County, ICLEI, USA)

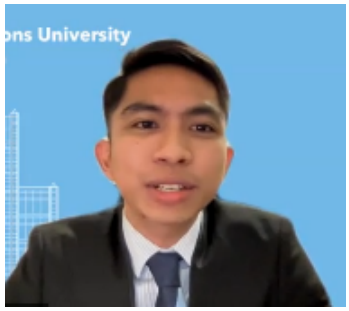
Prof. Yukari Takamura (University of Tokyo)

Mr. Alejandro Kilpatrick (UNFCCC)



Ms. Won Jung Byun (UNESCO)

Ms. Patricia Marcos Huidobro (GEF)



Mr. Marlex Olandiz Tuson (UNU-IAS MSc student)

Ms. Josephine Opoku Boateng (UNU-IAS MSc student)

2.2 A Joint Seminar Organised by GCF, MOFA, UNDP and UNU-IAS

2.2.1 About the Programme

On 8 July 2022, the Green Climate Fund (GCF), the Ministry of Foreign Affairs (MOFA) of Japan, UNDP and UNU-IAS jointly organised a seminar discussing challenges and opportunities to promote implementation of the Paris Agreement on climate change in developing countries. It featured Dr Yannick Glemarec (Executive Director, GCF) and other experts from MOFA, UNDP, and UNU. The event also explored the role of capacity building and education to empower practitioners and youth toward climate and sustainable transformation across the world.

Programme

Opening Remarks	• H.E. Mr. Takeshi Akahori (Director-General and Ambassador for Global Issues, MOFA, Japan) • Dr David Malone (Rector, United Nations University)

Presentation	● Dr Yannick Glemarec (Executive Director, Green Climate Fund (GCF)) o Presentation on the activities of GCF
Panel session: Short presentations by panellists	● H.E. Mr. Takeshi Akahori (Director-General and Ambassador for Global Issues, MOFA, Japan) o Japan's commitment on climate finance including its contribution to GCF o Strengthening human resource development in the field of climate change ● Mr. Tetsuo Kondo (Director, UNDP Representation Office in Tokyo) o UNDP's initiative on climate change: Climate Promise o Activities of UNDP as an Accredited Entity of GCF o Japan-UNDP Support for Transitional Effort to Decarbonization (JUSTED) ● Prof. Shinobu Yume Yamaguchi (Director, UNU-IAS) o Presentation of UNU-IAS contributions to the Paris Agreement, including development of the Specialisation on Paris Agreement and research activities
Panel session: Discussion and Q&A	(Key questions) 1) What are challenges and opportunities for implementing the Paris Agreement in developing countries? 2) What are gaps and needs on the capacity (for practitioners, youth, etc.) to implement climate actions, what is the role of capacity building and education (for practitioners and the youth) to close the gaps? 3) What is Japanese context for its climate assistance and human resource development who will lead the climate actions at the global level?
Closing Remarks	Prof. Shinobu Yume Yamaguchi (Director, UNU-IAS)

2.2.2 Summary and Discussions

In opening remarks, David Malone (Rector, UNU) welcomed Dr Glemarec, noting that tackling climate change had become a high priority on the global agenda, especially for developing countries that face much greater risks from climate change but have fewer resources to address them. Takeshi Akahori (Director-

General and Ambassador for Global Issues, MOFA, Japan) introduced Japan's contributions to implementing the Paris Agreement through its commitments on greenhouse emission reduction and financial support.

Dr Glemarec delivered a presentation on the GCF activities, highlighting the gap in climate financing between the actual levels and the levels required for the 1.5-degree pathway to avoid catastrophic climate change impacts. He pointed out the need to change the perception that green projects offer lower returns, as well as to de-risk climate resilient infrastructure in developing countries, which faces high financing costs. Dr Glemarec outlined key features of the GCF activities including partnerships with existing institutions, including commercial banks, as well as a risk-taking attitude. He also illustrated its financing process by showing project examples including with Japanese partners.

A panel session shared perspectives on how to promote implementation of the Paris Agreement in developing countries. Ambassador Akahori (Director-General and Ambassador for Global Issues, MOFA, Japan) described the financial support provided by the Government of Japan and its bilateral and multilateral cooperation projects in developing countries. He pointed out the importance of human resource development and expressed hope that UNU would further develop its contribution in this area. Tetsuo Kondo (Director, UNDP Representation Office in Tokyo) outlined UNDP activities to support developing countries in implementing their Nationally Determined Contributions as an Accredited Entity of the GCF. Shinobu Yume Yamaguchi (Director, UNU-IAS) explained how UNU-IAS policy-oriented research and education programmes were advancing implementation efforts through integrating expertise across disciplines. She highlighted the institute's new initiative to launch a postgraduate degree specialisation on the Paris Agreement.

Discussion moderated by Akio Takemoto (Programme Head, UNU-IAS) considered challenges and opportunities for implementation in developing countries, as well as gaps and needs related to capacity for practitioners and youth to implement climate action. Dr Glemarec highlighted the ambition gaps in climate mitigation, adaptation and financing, and the progress made at the 2021 UN Climate Change Conference in Glasgow (COP26) towards closing these gaps. Emphasising a human-centred approach, partnerships, and respect for ownership, Ambassador Akahori underlined the importance of adaptation measures and capacity

development for policymaking and implementation. Mr Kondo underlined the role of education for young people across the world. Prof Yamaguchi stressed opportunities for collective action by stakeholders toward synergistic transformation for climate and sustainable development. She elaborated on UNU-IAS's efforts to develop the postgraduate degree specialisation on the Paris Agreement and expectations to enhance collaboration among partners to advance the initiative.

2.3 Climate & SDGs Synergy Conference

2.3.1 About the Programme

On 21 July 2022, UNU-IAS held a side event of the Third Global Conference on Strengthening Synergies between the Paris Agreement on Climate Change and the 2030 Agenda for Sustainable Development which discussed the growing role of sub-national actors in accelerating social transformation for net-zero emissions and sustainable development.

The event explored good practices, opportunities and challenges for multi-stakeholder partnerships and youth empowerment to accelerate local action on climate change and sustainable development. It brought together diverse perspectives from the UN system, academia, civil society, youth, and local communities actively involved in climate action and the SDGs.

Programme

Opening Remarks	Prof. Shinobu Yume Yamaguchi (Director, UNU-IAS)
Presentation by panellists: Good practice of multi-stakeholder partnership	• Mr Takashi Murayama, Mayor of Kanazawa • Mr Taizo Hayashi, President, Junior Chamber International Kanazawa • Dr Aida Mammadova, Associate Professor, Kanazawa University • Ms Hinata Murakami, Pla-girls Team, Ehime University Senior High School • Prof Xiaomeng Shen, Director, UNU-EHS • Ms Kelly Takaya King, councilmember in Maui Country, Hawaii; ICLEI US)

	● Mr Omar Siddique (Cities and Climate Change Lead, Sustainable Urban Development Section, Environment and Development Division, UNESCAP)
Panel discussion: Role of partnership	● Practices at the local level: o Challenges, opportunities, role of multi-stakeholder partnership toward achievement of net-zero emissions and sustainable development ● Practices in an international context: o Good practices and enabling factors of local partnership actions toward net-zero emissions and sustainable development o Empowerment of youth/ education and capacity building
Closing Remarks	Prof Xiaomeng Shen, Director, UNU-EHS

2.3.2 Summary and Discussions

In opening remarks, Shinobu Yume Yamaguchi (Director, UNU-IAS) underlined that transformative action was only possible, effective, and equitable when we work together in partnership. She outlined how UNU-IAS was building partnerships to generate, mobilise, and scale up local knowledge, including initiatives through its Operating Unit Ishikawa/Kanazawa (OUIK) to develop and implement local SDGs indicators and sustainable tourism indicators. UNU-IAS outreach activities have made international debates more accessible to local audiences and built capacity to strengthen local leadership in Asia and beyond, through activities such as the Mayors Academy for Sustainable Urban Development.

Takashi Murayama (Mayor of Kanazawa City, Japan) introduced Kanazawa City's public–private partnerships for SDGs localisation, and initiatives on green infrastructure and sustainable urban nature. The Kanazawa SDGs 5 Courses of Action include: "a city that is old, new, and comfortable", "a city with zero waste", "a city where children can dream", "a city where both a satisfying job and a satisfying life are attainable" and "a city that gives birth to new objects and ideas".

Sharing a business perspective, Taizo Hayashi (President, Junior Chamber International Kanazawa) provided an overview of the Japan Junior Chamber International Kanazawa, its initiatives, and efforts towards achieving the SDGs. In

2015 Junior Chamber International (JCI) adopted the Kanazawa Declaration, which committed JCI to positive action toward achieving the SDGs.

Addressing the connection between universities and communities, Aida Mammadova (Associate Professor, Kanazawa University) explained how Kanazawa University was taking advantage of its location to advance the SDGs. She emphasised the need to combine local and global activities for capacity building and the key role played by young people, whom she considered an engine for climate action and achieving sustainable societies.

Providing a youth perspective, Hinata Murakami (Pla-girls Team, Ehime University Senior High School), explained how the "Pla-girls Team" were conducting research to help solve problems related to microplastics, including reducing microplastics pollution in marine ecosystems by utilising marine bacteria to produce biodegradable plastics.

Xiaomeng Shen (Vice-Rector in Europe, UNU and Director, UNU-EHS) presented a case study of muti-stakeholder engagement in Africa, emphasising that youth and women could play a pivotal role in the African economy. She also introduced a case from Spain as part of the multi-stakeholder RethinkAction project.

Kelly Takaya King (Council member, Maui County Council, Hawaii; ICLEI US) explained the juxtaposition of nature and development on Maui and highlighted the need to collaborate on sustainable development to sustain resources and combat climate change. She introduced the Aloha+ Challenge, a locally driven framework for the SDGs.

Omar Siddique (Cities and Climate Change Lead, Sustainable Urban Development Section, Environment and Development Division, UNESCAP) presented a snapshot of the Asia-Pacific region's progress on the SDGs. He underscored the need for multi-level governance frameworks due to the complexity and scale of climate change, and the importance of creating an enabling environment for climate action.

The event was moderated by Tsunao Watanabe (Senior Programme Coordinator, UNU-IAS).