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ADB

ADB's Experience of Circular Economy and Vision for future development of systems thinking and programmatic approaches

14 July 2022

Presented by James Baker
Senior Circular Economy Specialist (Plastic Wastes),
Environment Thematic Group

BUSINESS
OPPORTUNITIES 

SDGs, Strategy 2030, and Circular Economy

UN Guiding Principles

Sustainable Development Goals are a collection of 17 interlinked global goals designed to be a “blueprint to achieve a better and more sustainable future for all” The SDGs are intended to be achieved by 2030

ADB Strategy 2030

Strategy 2030 – Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific

Systems Level Approach to Operationalize Links and Balance Implementation Trade Off's

Circular Economy is a programmatic systems approach to support economic development whilst de-linking it from the unsustainable consumption practices

Sectors

Energy, Transport, Water, Urban Development, Digital Technology, Agriculture and Food Security, Climate Change, Environment, Gender and Social Development



Using a country-focused approach



Applying the differentiated approaches



Developing integrated solutions



Taking multisectoral approaches



Promoting digital development and innovative technologies



Expanding private sector operations

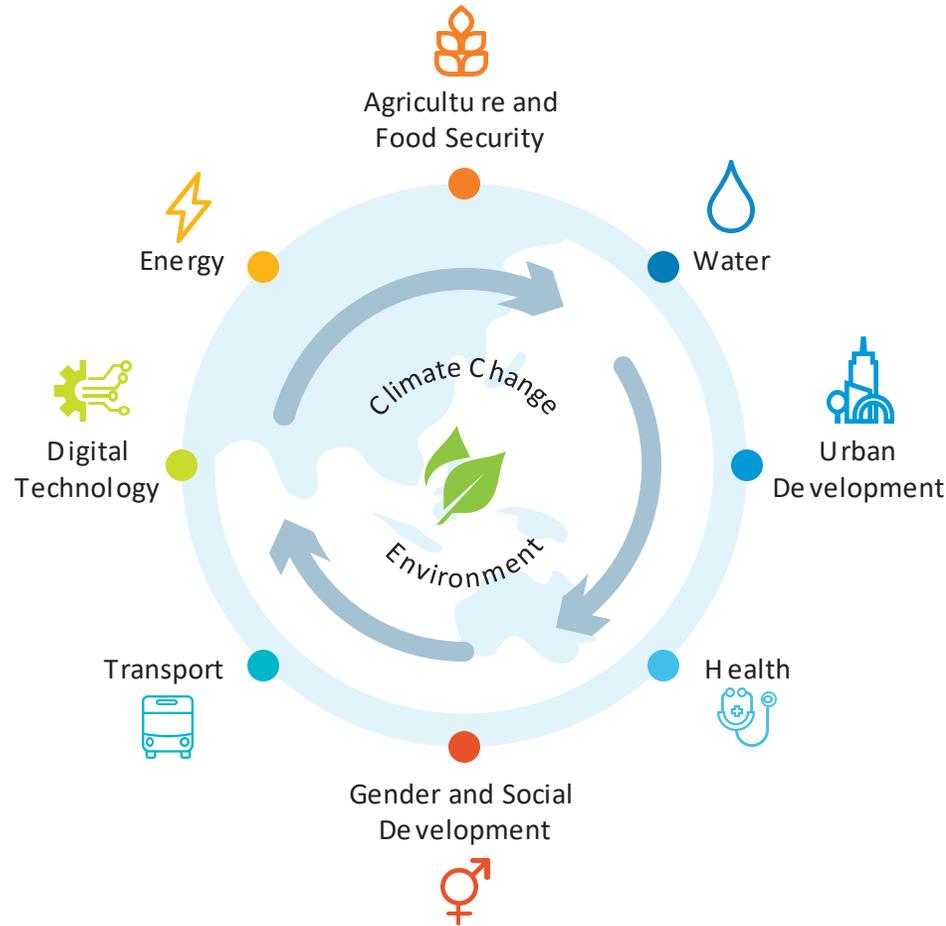


Developing capacity

Adding value and promoting quality infrastructure

Circular Economy Entry Points Exist Across Industry Sectors

Circular Economy is anchored in sustainability and most closely associated with waste management and plastics, but the value, efficiency and integrated systems approach can support programmatic additionality to enhance ADB's services and Viet Nam needs lead products portfolio across sectors



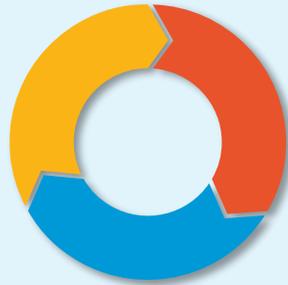
ADB Sectors exist as part of national, regional and global systems.

Circular Economy supports integrated solutions and products for our clients through multi-sectoral approaches

- Energy projects with integrated climate change, digital, water, urban development and nature-based solutions
- Urban development with integrated nature-based climate change mitigation solutions, urban farms, digital technology, energy efficiency and water conservation
- Gender accessible, quality jobs linked to sustainability and resource efficiency
- Healthy and Age Friendly Urban Development
- Bio-based Circular Economy to link increase circularity in the construction industry by linking urban, sub-urban and rural systems

Circular Economy and Systems Thinking provides the framework, language and metrics to design, articulate, and deliver multi-sectoral solutions

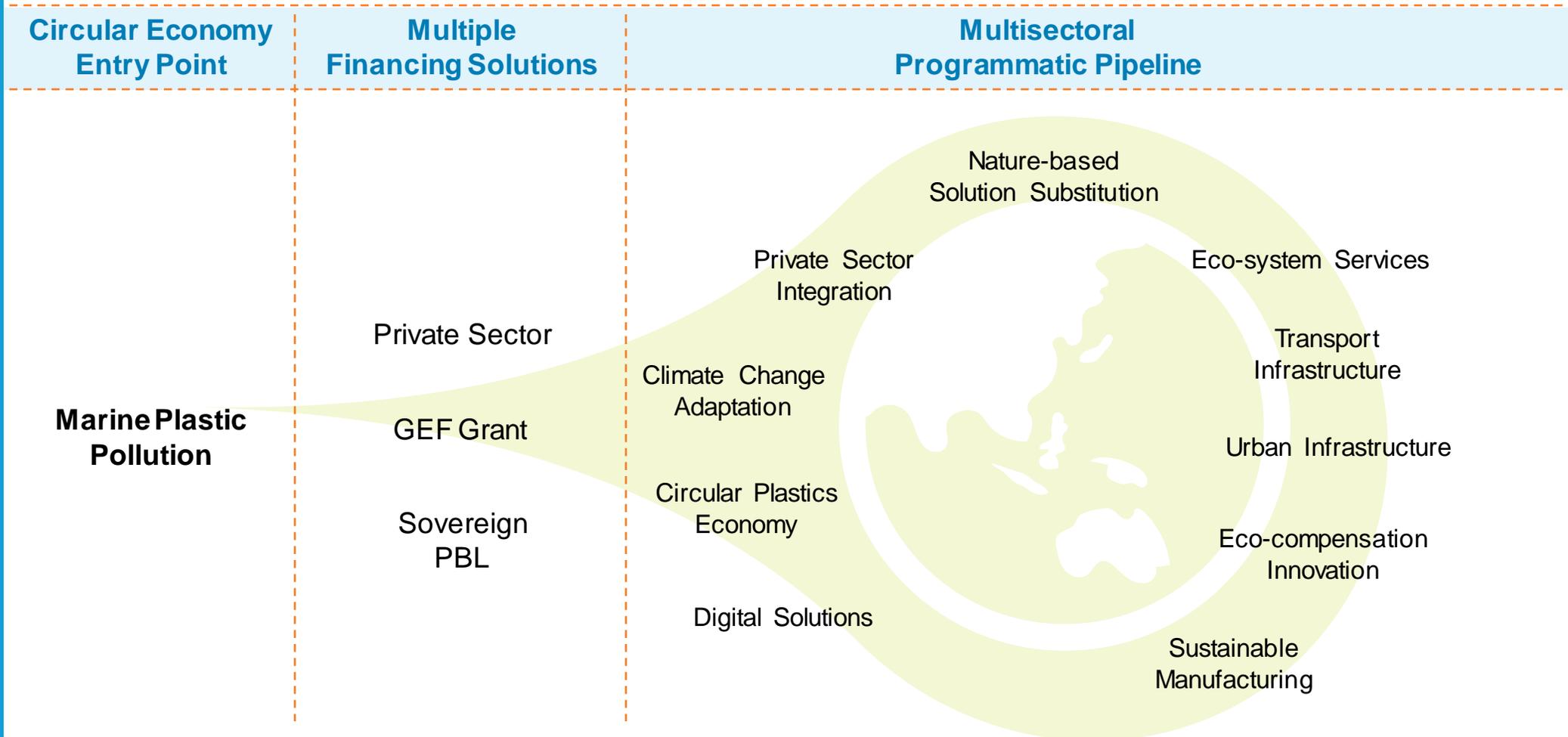
Systems Thinking for Pipeline Development



- Circular Economy is an umbrella term or “Brand” covering the full range of sustainability transition aspirations from the Micro scale (Community) to Macro scale (National and Regional Policy)
- The unification of sustainability disciplines under a **Circular Economy systematic approach closely aligns with ADB’s Strategy 2030**
- Circular Economy, as a systems approach, provides a common frame of reference to integrate social development, climate change, health oceans, urban development and a plethora of other ADB sovereign and non-sovereign activities into **programmatic solution packages** tailored to country needs
- The project and pipeline additionality supported by CE systems approaches **allows ADB’s integrated portfolio of services to deliver greater development and sustainability impact** when compared to business-as-usual siloed project approaches
- The fundamental shift from individual projects to a **programmatic approach to sustainability** is fully compatible with our current Country Partnership Strategy and Indicative Country Pipeline and Monitoring Reports

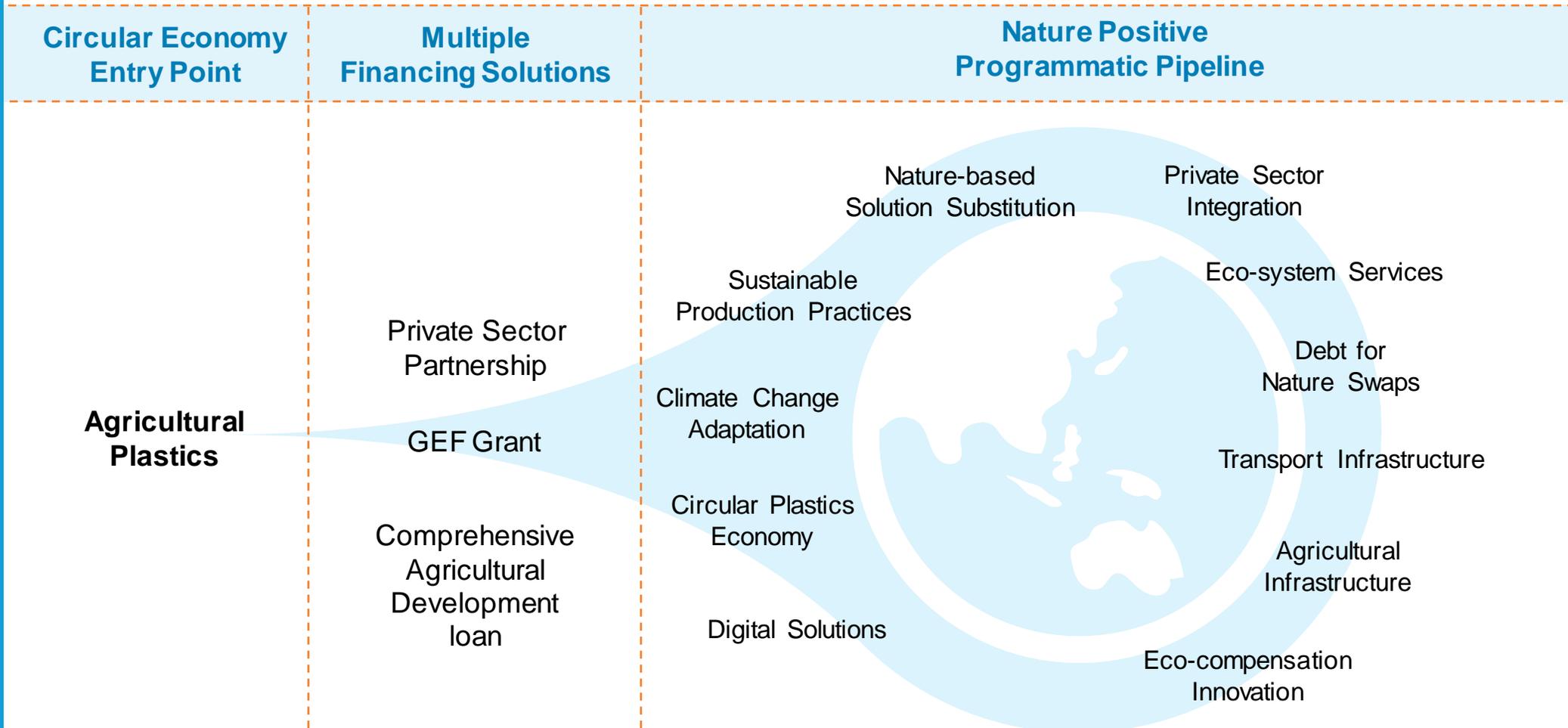
Plastics – Marine Plastics Pollution

Circular Economy is most often associated with plastics from their avoidance and substitution through to waste management and recycling. ADB’s Promoting Action on Plastic Pollution is working across ADB to address marine plastic pollution and support our DMCs as the Global Plastics Treaty is designed and implemented.



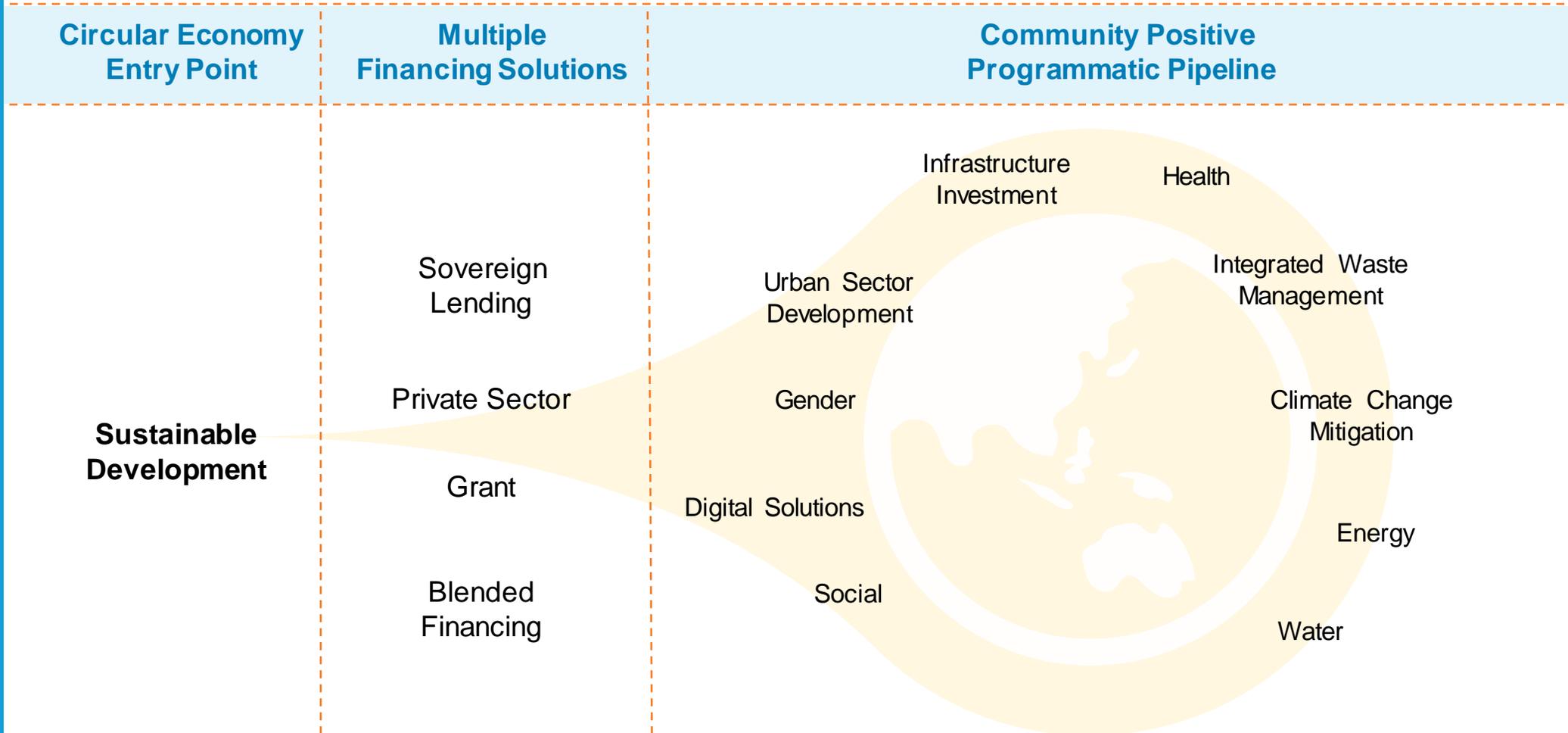
Yangtze River Economic Belt

The Yangtze River Basin is a growing example of circular economy facilitated, multi-sectoral solutions for sustainable rural development and climate adapted food supply security



Healthy and Age Friendly Cities

Circular Economy is anchored in sustainability and regularly associated with waste management, but integrated systems approaches can be applied across ADB's sectors. The tools, measurements and language of Circular Economy can support the integration, implementation and optimization of multi-sectoral solutions



Risk Management and Balance for Multi-Sectoral Projects

The transition to sustainable development approaches and the integration of diverse project elements present significant Challenges for ADB's risk management

The study of Circular Economy is driven by understanding of **Systems Dynamics** and the identification of emergent systems phenomena resulting from sustainability interventions

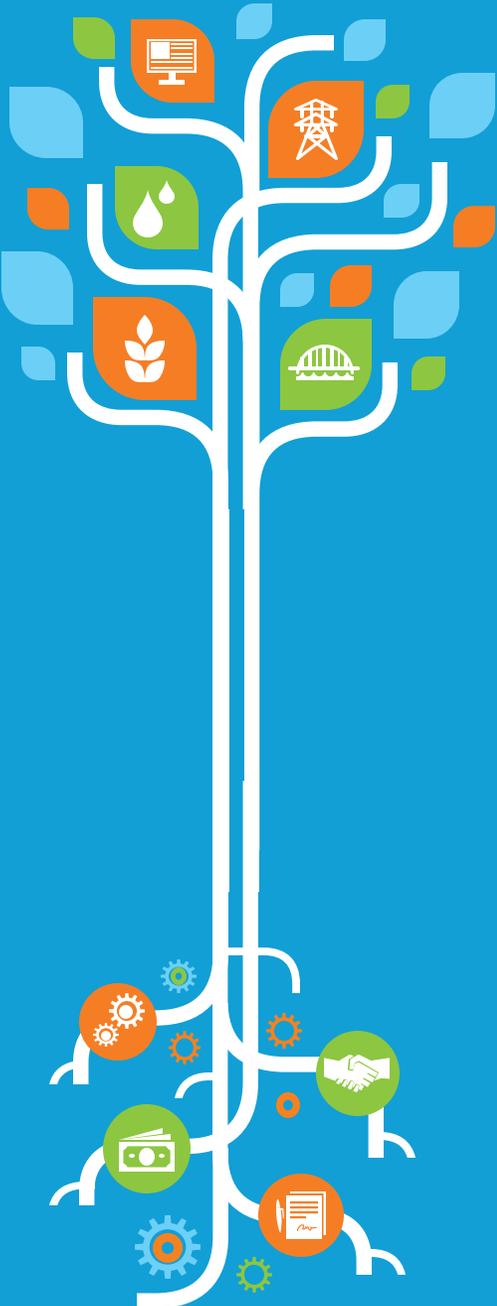
The application of hybrid impact assessment methodologies will allow ADB to support the transition of our DMCs towards sustainability from community to National Policy level whilst **successfully mapping the potential positive and negative results of these transitions**

The use of these tools can help ADB to de-risk our programmatic activities and further expand our pipelines to encompass mitigation and avoidance strategies into the multi-sectoral solutions and integrate safeguards solutions

Multi-sectoral programs will, inevitably, lead to **balancing decisions between sectoral best practices.**

Detailed, transparent assessment of various options can guide development effectiveness decisions. Systems approaches require consideration of dynamic factors over extended time periods to be considered and quantified

Complex Value across Economic, Social, Environmental and Technological Domains support this risk management and balancing decisions



Healthy Oceans Action Plan, Circular Economy approach to Promoting Action on Plastic Pollution from Source to Sea

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HEALTHY OCEANS

Action Plan for Healthy Oceans & Blue Economies for Asia and the Pacific

ADB Commitment: **\$5 BILLION** (2019-2024)

FLAGSHIP OCEAN PROGRAMS



MAINSTREAMING OCEAN HEALTH



Wastewater and Sanitation



Agriculture and Water



Solid Waste Management

GROWING BLUE ECONOMY SECTORS



Green Maritime Transport



Marine Renewable Energy



Sustainable Coastal Tourism

Priority 2022 – Enhancing Ocean Climate Action

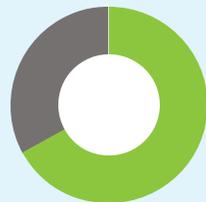
Ocean Action is Climate Action:

- The ocean regulates our climate and is the largest living carbon sink.
- Coastal areas, marine ecosystems, islands, and blue economies are highly vulnerable and most need adaptation investments.
- Oceans and blue economies hold 'win-win-win' investments for climate, nature and gender.

Ocean Contribution to \$100 billion: A Major Opportunity

- **Number of Projects: 100%** of ADB ocean projects (*to date*) also contribute to climate
- **Finance** (*initial estimates*):

Climate **46%** (ADB portfolio avg. 21 %)



Adaptation 31%
(ADB portfolio avg. 5 %)



Promoting Action on Plastic Pollution from Source to Sea in Asia and the Pacific



Status
Approved December 2019



Amount and modality
\$15 million in grants



Project Duration
2019-2025



Department/Division
SDCC/SDTC-ENV

Objectives	Reduce marine plastic pollution and restore river and ocean health
Participating countries:	<ul style="list-style-type: none"> • Indonesia • Philippines • Thailand • Viet Nam
Activities	<ul style="list-style-type: none"> • Data, metrics, measurement, and baselines • City-level action plans • Collaborative Forums • Pilot projects and test facilities (focus on high level technologies) • Knowledge products and capacity-building • Catalytic financing

Promoting Action on Plastic Pollution from Source to Sea in Asia and the Pacific

Aligning Plastic Pollution Reduction and Climate Change Mitigation Goals

ADB has aligned its activities to support country level preparations for the global treaty to curb plastic pollution, in addition to ongoing efforts to help countries on climate goals.

Regional study:

- link between plastic pollution reduction and climate change mitigation
- regional opportunities for project development and investment with co-benefits, including waste management and circular plastic economy
- financing mechanisms to support investment
- technologies for measuring baselines and impact and for project operations



Digital App Based Recording and Verification of Plastic Collection and Recycling – Pilot Project (Viet Nam)

- **Demonstration of community and MSME apps to support plastic crediting and compliance activities in preparation for the Global Plastics Treaty:**

- » Households and community groups to encourage the collection and segregation of plastics through centralized collection points
- » Use of digital technologies – Trial options for remuneration/crediting systems to support future expansion and roll out
- » Further develop the market and options for enhancing recycling of plastic wastes
- » Local business, local reprocessing/recycling companies to participate in the system to establish suitability for enterprise level integration

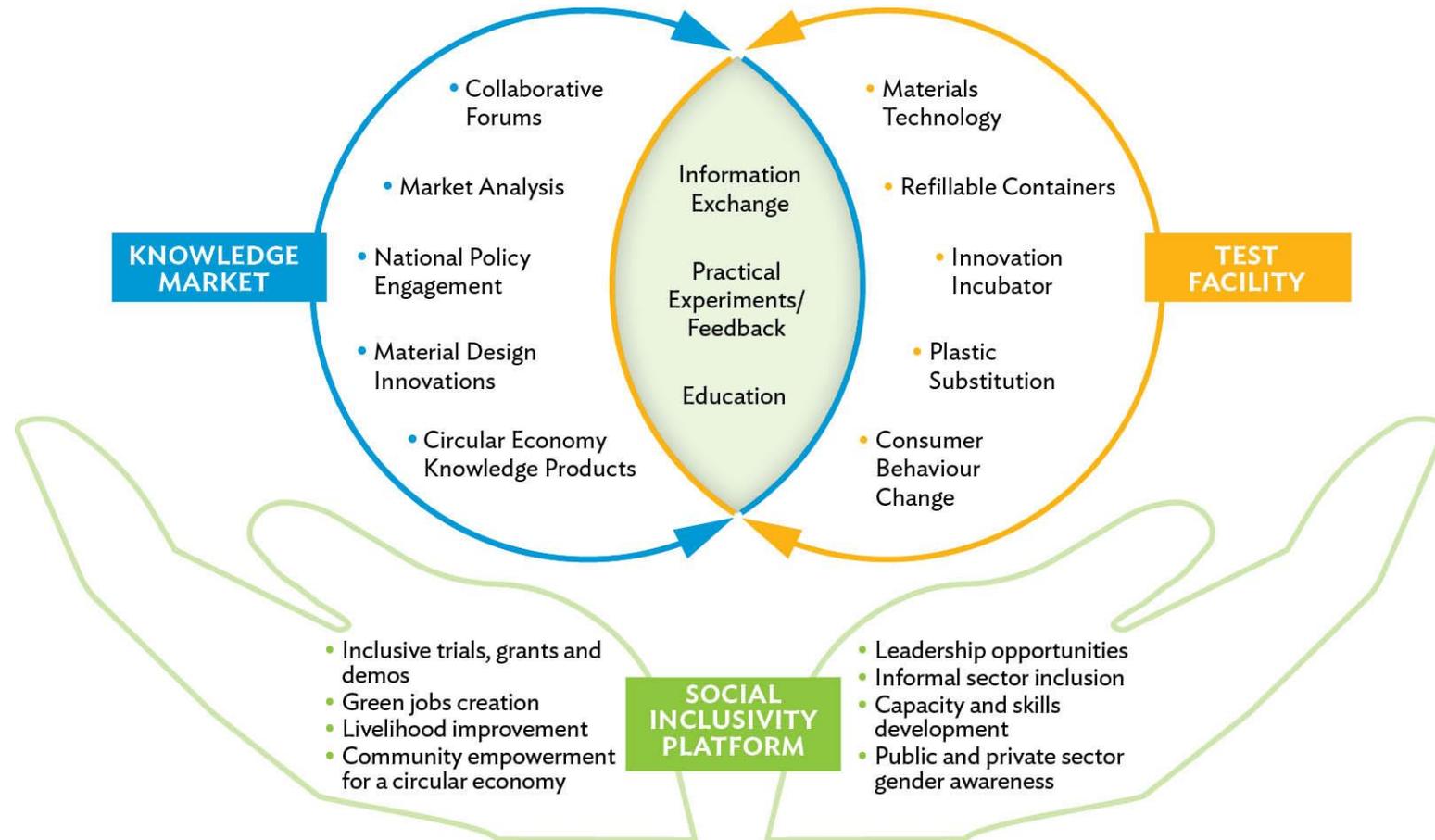
- **Industry partnerships** to support enhanced collection, recycling and crediting processes

- **Phase 1 Study** on the availability and use of digital apps for plastics collection and waste management systems and actions to boost MSME participation in the digital economy for plastics management



Promoting Action on Plastic Pollution from Source to Sea in Asia and the Pacific – Circular Business Hub (Indonesia)

Circular Business Hub



Regional Blue Loan Project – Scaling up Investments in Plastics Recycling

- Corporate loan to Indorama Ventures Limited to support expansion of recycled polyethylene terephthalate (PET) capacity by 123,000 tons per annum and other sustainability capex in India, Indonesia, the Philippines, and Thailand
- Total project cost of \$300 million, funded by ADB (\$100 million including \$50 million from LEAP Fund), \$150 million from IFC, and \$50 million from DEG
- The loan is certified as a green and blue loan



ADB's first internationally verified blue loan for private sector companies



Contribution to the creation of a circular economy for PET



ADB-supported waste management projects in Greater Malé (Maldives)



Generation



Collection



Transport/transfer



Treatment



Final disposal

GM Environmental Improvement and Waste Management Project

2018-2023

\$40.00 million (ADB and JFPR)

1. Improved waste collection, transfer and disposal in Greater Malé including improved site management and logistics on Thilafushi (temporary measure) + constr and demolition waste
2. Improved outer island waste management system
3. Improved awareness and behavioral change

GM Waste to Energy Project

2020-2026

\$151.13 million (ADB, AIIB, JFJCM)

1. Regional waste management facility with WTE plant and landfill for APC and IBA;
2. Institutional capacity & public awareness

Strengthened **institutional capacities** for sustainable solid waste service delivery and **environmental monitoring**

Greening Major Ports in Asia and the Pacific

Nuku'alofa Port Upgrade Project implementation with the government of Tonga

The project will upgrade the Nuku'alofa port, rehabilitate, renew and expand the existing infrastructure and improve the management and operations practices.

Solutions:

- Rehabilitating all cargo wharves and restoring the top surface (deck)
- Reconstructing and reorganizing the container yard and upgrading port access
- Formulating a gender equality policy and related training
- Training programs on port operations and environmentally sustainable work practices

Value addition: Green and smart ports promoting gender equality.

The project is designed with green and smart components that promote the port's environmental sustainability, which includes new drainage systems and bounded container leaking areas to control and eliminate spills into the sea, or new lighting towers with light emitting diode (LED) lamps and dimmable control. The project includes gender aspects to promote the participation of women in port operations, which is critical to the equitable development of countries with low levels of women's participation.



Towards Nature-based Tourism: Sustainable Tourism Development Project (Philippines)

Coron and El Nido's ocean-based tourism industries have grown rapidly over the past decade. Tourism growth is also threatening the health of marine and coastal ecosystems through rising pollution levels from untreated wastewater and solid waste, and climate change will exacerbate these impacts on ecosystems which are already under threat.

Solutions: Focus on sustainable, inclusive and resilient development of Coron and El Nido's tourism sector

- Urban **environmental infrastructure** investments to improve sanitation, water supply and solid waste management
- Improved **marine protected area** management, and **alternative livelihoods** promotion for coastal fishing-dependent communities.
- Skills training for tourism sector workers, and support for tourism SMEs to improve their competitiveness



Value added:

- **Climate-resilient urban infrastructure** to address risks from flooding and sea-level rise
- Use of **nature-based solutions** and water-sensitive design such as mangrove replanting near outfalls
- **Gender design features** mainstreamed into project design

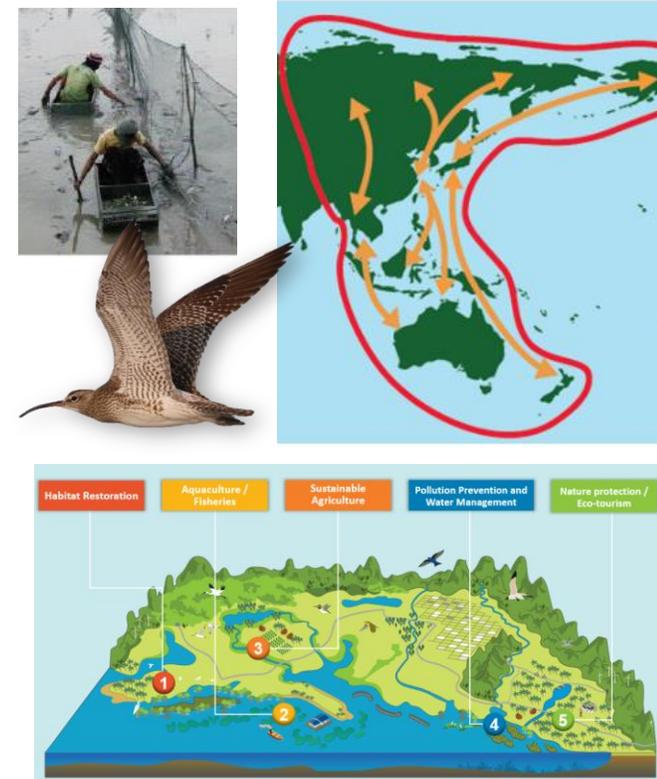


East Asian-Australasian Flyway – Regional Flyway Initiative



A Regional Initiative acting at-scale to mobilize \$3 billion of investment for wetland protection and management to have flyway level impact

- **Delivery Timeframe** - Comprising of 2 phases: i) project development phase using grant finance 2021 – 2023 (2yrs); and ii) investment phase 2023 onwards (10+yrs).
- **RFI Goal** - Will deliver 50+ flyway sites under Protection/ Sustainable Management providing a coherent network of priority sites with favorable conservation status with species numbers maintained or enhanced on the EAAF.
- **Regional** - A Regional Initiative acting at-scale to have flyway level impact.
- **Co-benefits** - It will promote healthy wetlands (strengthen natural capital), deliver ecosystem service co-benefits and reinforce green infrastructure to benefit nature and people and scaling up measures for climate adaptation.
- **Focus Countries & Ecosystems** – Bangladesh, Cambodia, Indonesia, Mongolia, People’s Republic of China, Philippines, Thailand, and Viet Nam. Focus on coastal sites although inland priority wetlands will also be explored if governments interested.
- **International Agreements** - Contributes towards key agreements including EAAFP Strategic Plan, Paris Agreement, Ramsar, Post-2020 biodiversity framework and provides opportunity to support delivery on UNESCO World Heritage obligations



One ADB Circular Economy Toolkit

Circular Economy Framework – A simplified conceptual model of how individual project investment can contribute to the development of programmatic pipelines in sectors, countries and regions. This will include project structuring, component design and interfaces.

Circular Economy Modelling Tool – Building on the existing ADB waste management calculator incorporating both Lifecycle Analysis and Complex Value Optimisation. This modelling tool will support both policy and investment design by mapping and quantifying positive Circular Economy impacts across a sector, country or region.

Specific Knowledge Products – Continuing and expanding the articles and blogs already produced by SDCC to address core finance, policy and functional subjects.

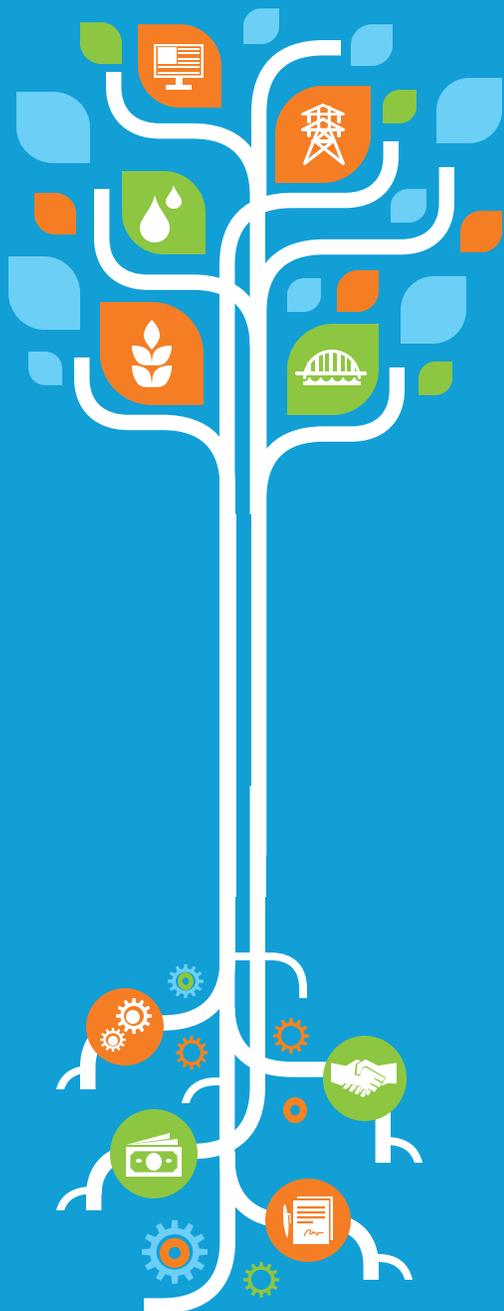
Partnerships – Identifying potential partnership opportunities for Circular Economy funding and knowledge transfer

Knowledge Development and Dissemination – Providing a central repository for up to date and reviewed reference materials to support operational departments with deeper

Deep Dives (as required by Operational Teams) – Technical Deep Dives on specific subjects or challenges raised through the working group.



Circular Economy and Systems Approaches will be fundamental in achieving sustainable growth



THANK YOU!

JAMES BAKER

Senior Circular Economy Specialist (Plastic Wastes),
Environment Thematic Group

jbaker@adb.org