



# Asian Development Bank

## Co-benefits Assessment Methodology and Tool



February 2022



# Future Carbon Fund Delivering Co-Benefits for Sustainable Development



**FUTURE CARBON FUND**  
Delivering Co-Benefits  
for Sustainable Development

- ❖ FCF undertook qualitative and quantitative analysis of the social, environmental, and economic co-benefits being delivered by its portfolio projects.
- ❖ Mapped the co-benefits against the 17 UN Sustainable Development Goals.
- ❖ Gathered lessons learned and analyzed how these could be used for the enhanced consideration of sustainable development under new market mechanisms under Article 6 of the Paris Agreement.
- ❖ The report reflects how CDM projects supported by the FCF not only reduce GHG emissions but deliver social, environmental, and economic co-benefits **contributing to sustainable development** in the region.

ASIAN DEVELOPMENT BANK

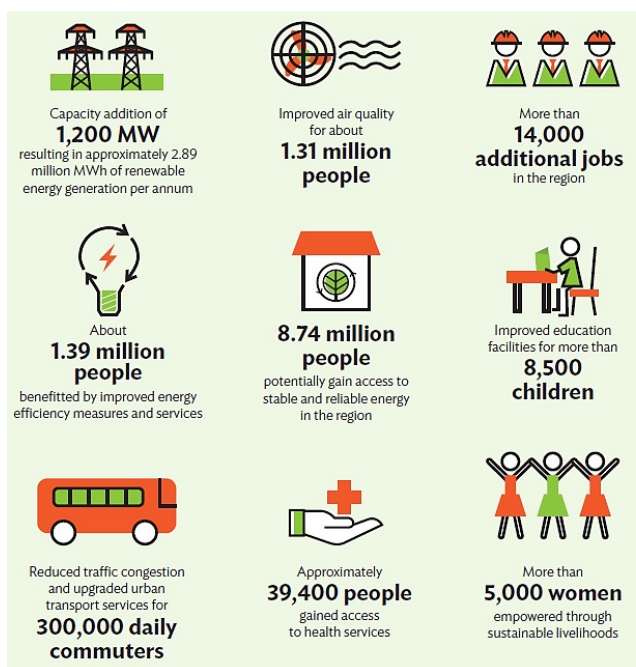


<https://www.adb.org/publications/future-carbon-fund-benefits-sustainable-development>



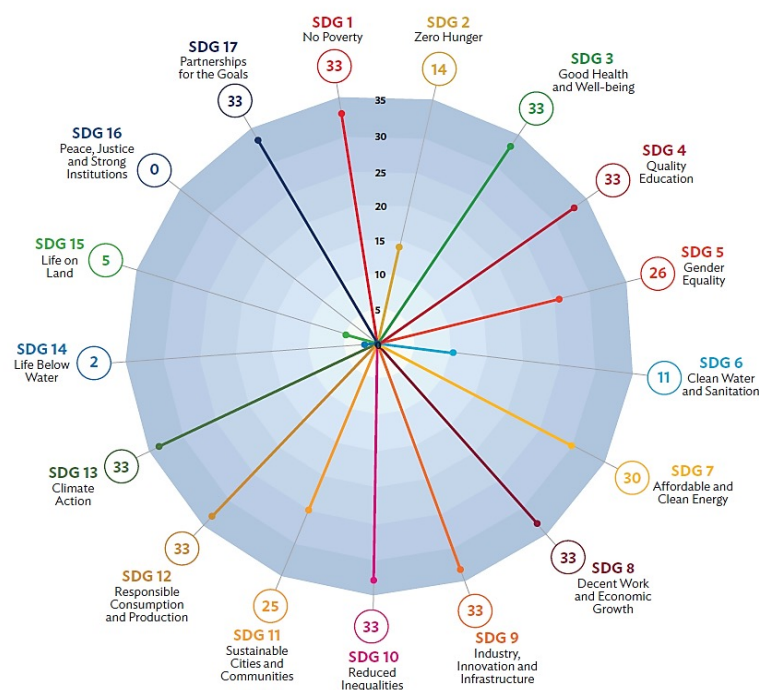
# Future Carbon Fund Delivering Co-Benefits for Sustainable Development

## Co-benefits of FCF projects



- ❖ FCF projects provide a broad set of co-benefits to the beneficiary communities
- ❖ Delivering positive impact to more than 10.5 million people across Asia and the Pacific

## Co-benefits mapped to SDGs



- ❖ Contributes to 16 of 17 SDGs, including **SDG 3 covering good health and well-being because of co-benefit from improved air quality**

## ADB Methodology - Rationale

- ❖ **Simultaneous implementation** of the Paris Agreement and Agenda 2030. Market mechanisms are making a paradigm shift from **Kyoto to Paris**.
- ❖ Keeping larger interests in mind, while also supporting ADB by:
  - ❖ ADB's Strategy 2030 – Operational Priority 3: **Tackling climate change**, building climate and disaster resilience, and **enhancing environmental sustainability**
  - ❖ Need to **capture SD benefits** as ADB prepares to **mobilize carbon finance** through the purchase of mitigation outcomes from climate mitigation actions under the framework of **Article 6**
- ❖ Need for harmonizing and standardizing SD assessment approaches:
  - ❖ Measuring and monitoring SD co-benefits of climate action and its linkages to the SDGs is critical for scaling up Article 6 activities
  - ❖ Different types of stakeholders will have different purposes to assess over-all impacts of their climate action to SDGs
  - ❖ Robust and user-friendly tool that will help unlock the hidden value of carbon for varied climate mitigation actions

### OPPORTUNITIES

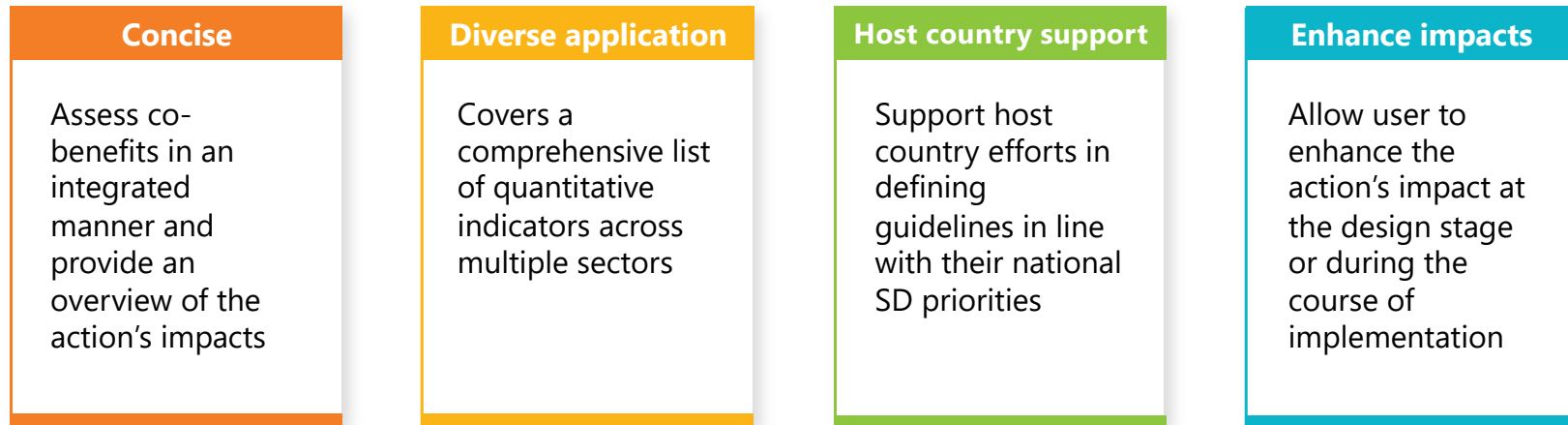
- Consideration of co-benefits provide useful information that will help hedge against sustainability risk and enable stress testing.
- Monetization of externalities of the project and inclusion of such benefits to investment decision-making can improve project portfolio moving towards sustainable finance

## ADB Methodology – New Approach

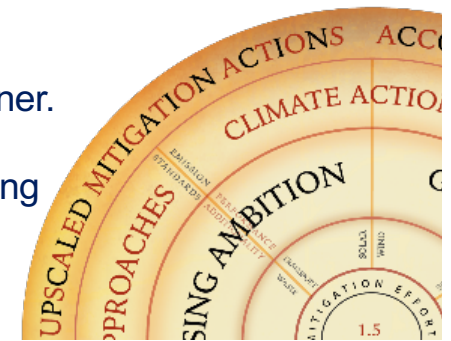
Parameter	Future Carbon Fund Assessment 2017	ADB Co-benefits Methodology 2022
<b>Types</b>	Only CDM projects	Project, policy or programs
<b>Sectors</b>	Energy, transport, waste	All UNFCCC sectors - energy, agriculture, LULUCF, waste, transport, and industries
<b>Target user</b>	Project implementers (ADB)	Investors, host countries, project implementers, policy makers, civil society, private sector, financial institutions
<b>Assessment stage</b>	Ex-post	Ex-ante, ex-post, interim
<b>Geographical location</b>	Asia and the Pacific	Globally
<b>SD assessment approach</b>	11 impact areas with 41 indicators mapped to the SDGs	21+9 impact areas with 630 indicators Impact areas mapped to the SDGs
<b>Format</b>	Manual	Excel based digital tool
<b>Level of assessment</b>	Portfolio level (33 projects)	Portfolio level, multi-component interventions, stand-alone intervention



# ADB Methodology – Objectives

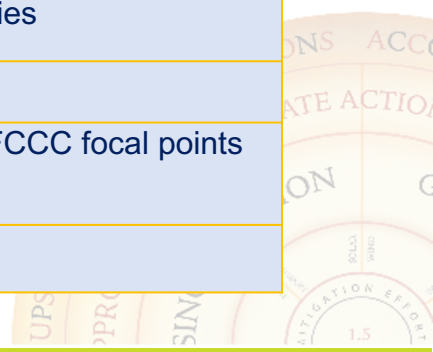


- Help users thoroughly assess, report, and monitor the sustainable development impacts of projects, policies and programs in a standardized, straight-forward manner.
- Support investment decisions in climate actions with inherent SD co-benefits
- Provide key learnings for scaling-up and/or replication of interventions while ensuring SD benefits.

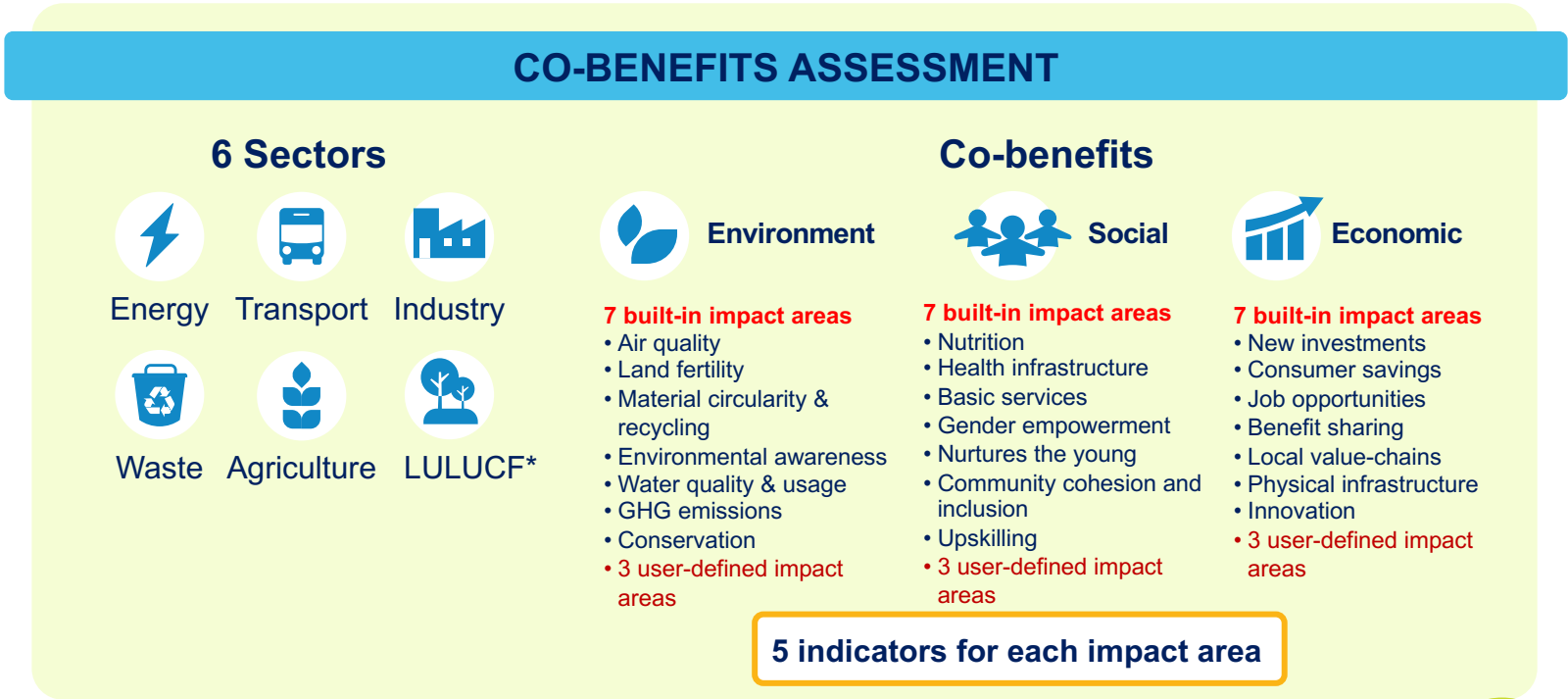


## ADB Methodology – Scope and Usage

Function		Target stakeholders
1	Value-based <b>prioritization of funding options</b> / projects to provide guidance for investors	Investors, funders, financial institutions
2	<b>Communicating value and impact</b> of investments, assessing the impacts of finance provided such as loans and results-based financing	Investors, funders, financial institutions
3	<b>Communicating success stories</b> to motivate others to initiate climate actions, assessing impacts of voluntary commitments	Climate finance institutions/ funders, Governments, civil society organizations, private sector
4	Communicate <b>local and community benefits</b> to increase local support and ownership in climate action	Civil society organizations, local project implementers and beneficiaries
5	Supporting funded projects to <b>maximize co-benefits</b>	Project implementers
6	Enabling <b>Article 6 compliance</b>	Host countries, national UNFCCC focal points
7	<b>Report on progress towards SDGs</b>	Host country governments



# ADB Methodology – Framework

























































**Each impact area will be mapped against the SDGs**



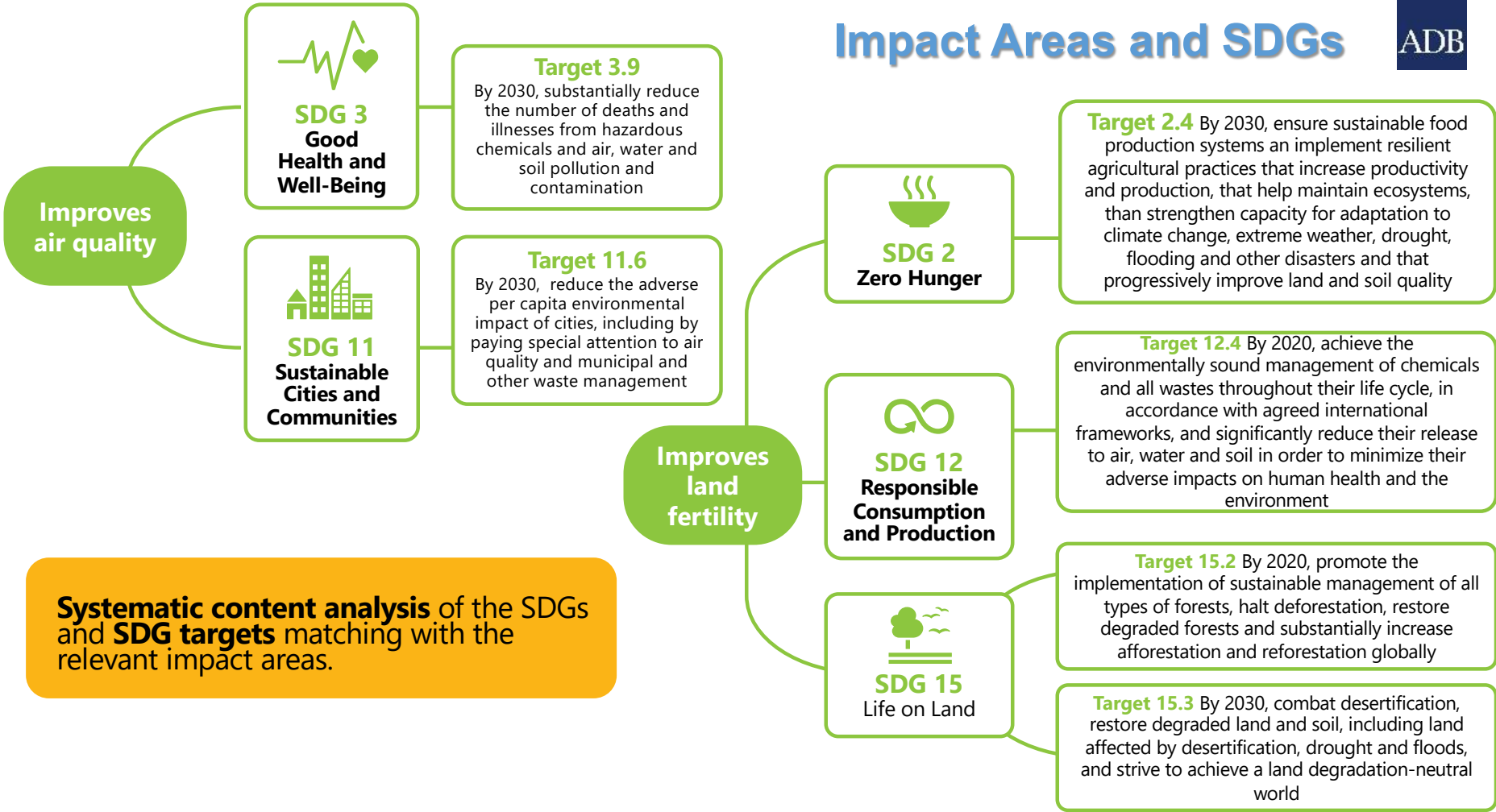
\* Land Use, Land-Use Change and Forestry



# Co-benefits Impact Areas and SDGs

Environment (7)		Social (7)		Economic (7)	
Improves air quality	 	Improves nutrition and eliminates malnutrition	 	Attracts new investments into domestic markets	  
Improves land fertility	  	Creates health infrastructure or facilities at intervention level	  	Promotes consumer savings	 
Increases material circularity and recycling	 	Enhances inclusive access to basic services	   	Creates new job opportunities	  
Increases environmental awareness	  	Empowers women	  	Promotes inclusive economic prosperity and benefit sharing	  
Improves water quality and water use efficiency	   	Creates a nurturing environment for future generation		Promotes local markets and local value chains	 
Reduces GHG emissions		Facilitates community cohesion and social inclusion	  	Supports the development of physical infrastructure	 
Improves conservation of natural resources including biodiversity	  	Promotes future-oriented skilling	  	Promotes industrial and technological innovation	 

# Impact Areas and SDGs

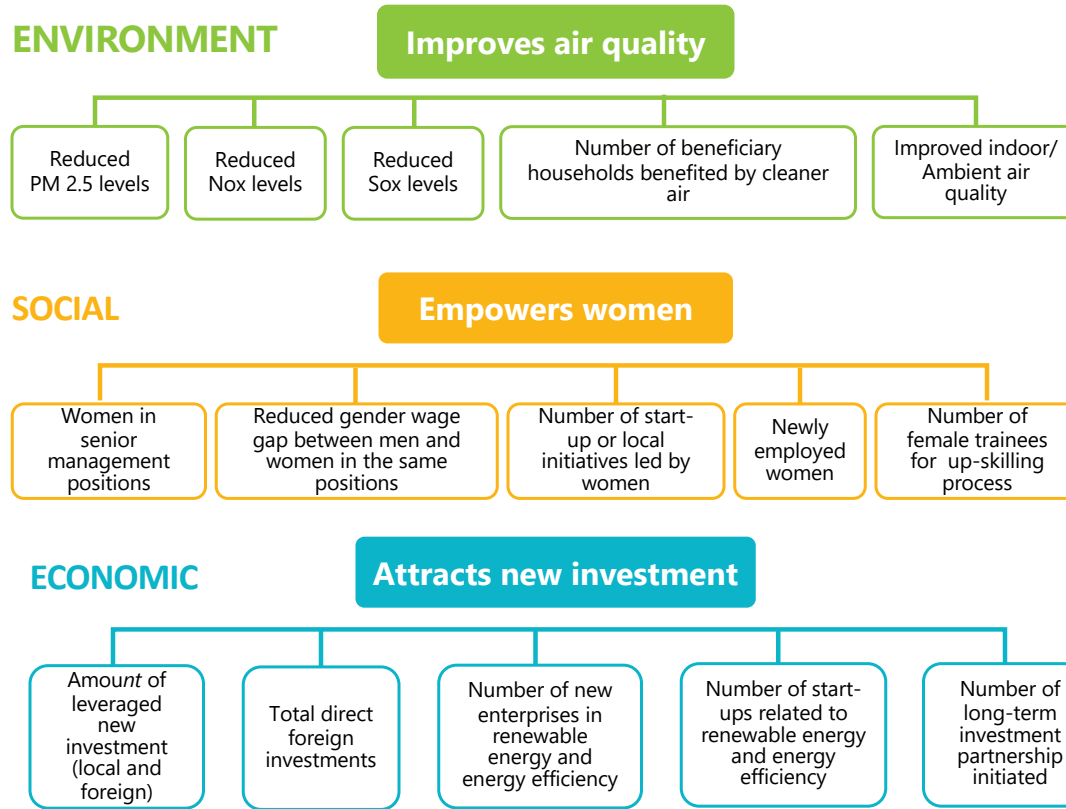


**Systematic content analysis** of the SDGs and **SDG targets** matching with the relevant impact areas.

# Co-benefits Assessment Methodology Indicators

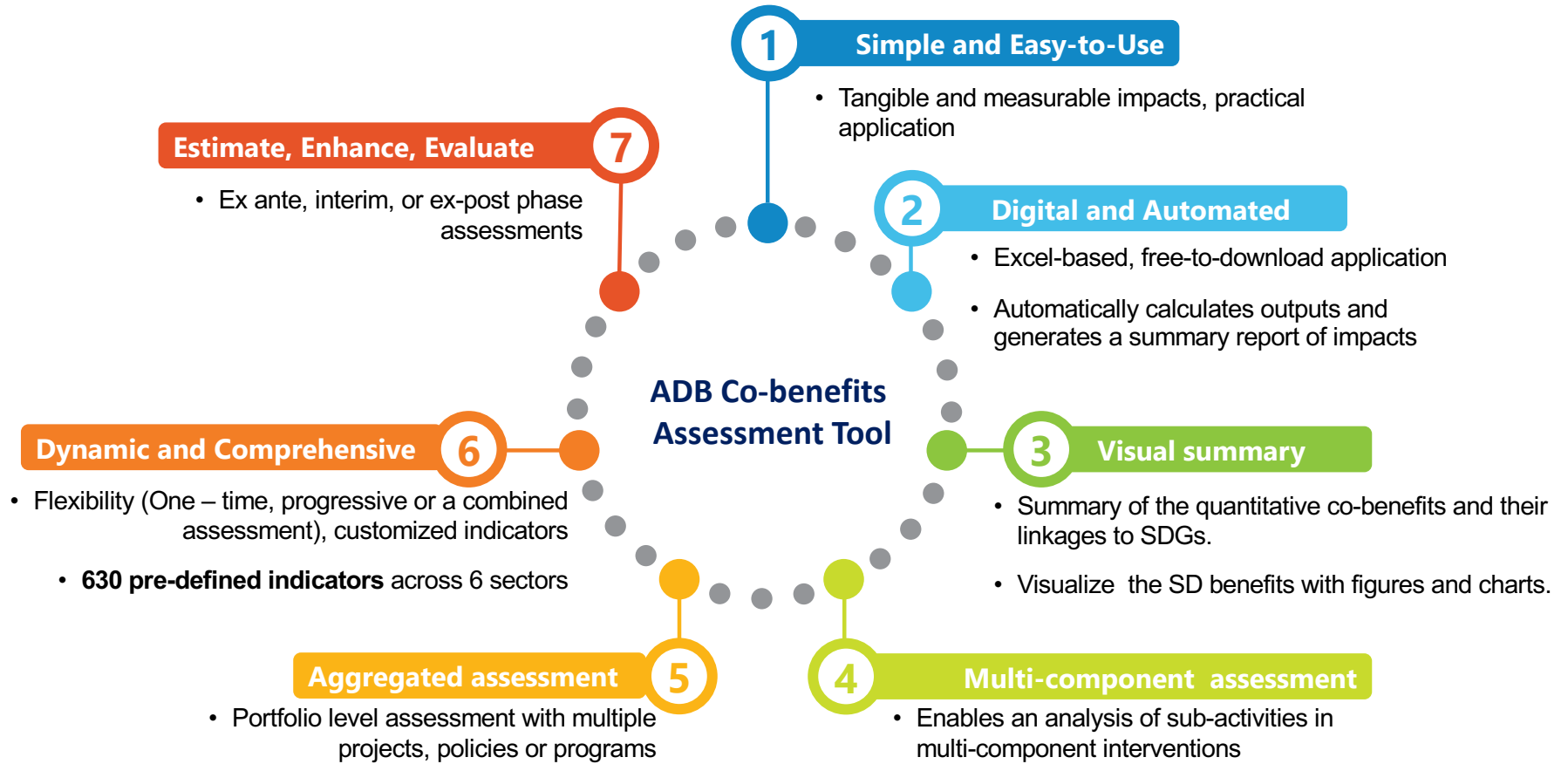
Indicators are designed such that:

- ✓ Identifiable
- ✓ Attributable
- ✓ Universal
- ✓ Quantifiable
- ✓ Data availability



Example of Energy sector indicators

# Tool to use ADB co-benefits Assessment Methodology



# ADB Co-benefits Tool – Snapshots



**ADB Co-Benefits Tool**  
Version 1.3 (January 2022)

**Quick Start**

- Go to **DATA INPUT** Segment
- Go to **DATA OUTPUT** Segment
- Go to **Co-Benefits Resources** Literature & Reports
- Go to **Technical** Tool Developer's Segment

**Navigating through the tool**  
popular keyboard short-cuts

- to top [Ctrl] + [Home]
- to next sheet [Ctrl] + [PgDn]
- to previous sheet [Ctrl] + [PgUp]

**Quick steps**

- 1 Select intervention sector
- 2 Check technical parameters and add custom impact areas / indicators
- 3 Insert technical information on interventions
- 4 Insert performance data for co-benefits indicators
- 5 Get your co-benefits report

- ✓ **Built-in guidance** provided in the tool
- ✓ Intervention's **basic input data** to be provided by user
- ✓ **Built-in** pre-defined formula generate **visually informative outputs**
- ✓ **No user input required beyond initial basic information**
- ✓ **Outputs on** essential assessment parameters
- ✓ **Provision for adding new co-benefits and indicators**

# ADB Co-benefits Tool – Input Sub-sheets (1)



technical notes

## ADB Co-Benefits Tool Data Input Segment

**ASSESSMENT PREFERENCES**

Add cases to Assessment Portfolio	1	ADD
Type of Assessment	Single-Sector	
Select INTERVENTION SECTOR	ENERGY	

**Note:**  
When a multi-sector assessment is selected, the intervention sectors are to be individually assigned in the Portfolio

PORTFOLIO OVERVIEW

Select ASSESSMENT PURPOSE: Combined Assessment

*Assessment preferences are global parameters. Changing it will affect all existing and new cases to be added.*

Insert Portfolio and Cases Technical Parameters

Insert Custom Co-Benefits and Indicators

Insert Co-Benefits data for case #: 1 GO

- **Data Input Sub-sheets** of the tool require inputs on the primary data of an intervention
- Tool provides **flexibility** to assess co-benefits of an **individual intervention or multiple interventions** of different sectors.
- Tool provides **flexibility** for user to select options for **‘one-time’, ‘process monitoring’ or ‘combined’ assessment** for an intervention.



# ADB Co-benefits Tool – Input Sub-sheets (2)



Navigation icons: Home, Refresh, Repeat, Network, Settings. technical notes

## Test Case Overview (technical information)

Test Case 01					
	Case Title	Solar PV Mini Grid Project in Rural India	Intervention sector	ENERGY	
	Implementing organisation	ADB	Target country	INDIA	
	Postal Address		Target locality (e.g., state, province, district)	Kanpur district (UP)	
	Country	INDIA	Target population	10,00,000	persons
	Contact person		Costs / Budget	18,00,000.00	USD
	Email		GHG reduction	70,000.00	t CO2 eq
	Phone		Baseline year	2020	
	Website		Intervention start	JAN	2022
			Intervention conclusion	DEC	2029

- This input sub-sheet requires **primary data** on the intervention and / or its portfolio under assessment - such as title, contact details, geographic scope, start date of the intervention assessment, etc.



# ADB Co-benefits Tool – Input Sub-sheets (3)



## Case Data Input (combined assessment)

Case ID		
Title	Solar PV Mini Grid Project in Rural India	
Intervention sector	ENERGY	
Co-Benefits		
Indicator 01		
Co-Benefit ID	Indicator 01	Unit
ENV_01	Reduced PM2.5 levels in the vicinity of intervention	% reduction
ENV_02	Restored land area	Km2
ENV_03	Reduced toxic and hazardous waste	tons
ENV_04	Staff members responsible for internal sustainability	Total
ENV_05	Reduced annual water consumption	m³
ENV_06	GHG emissions avoided	tCO2e
ENV_07	Restored natural habitats / heritage	Km2
SOC_01	Number of households provided access to advanced	Total
SOC_02	New universal accessible medical treatment facilities	Number of facilities
SOC_03	Increased access to improved basic services	Number of households
SOC_04	Women in senior management positions	Total
SOC_05	Number of schools supported	Total
SOC_06	Financial contributions for community development	USD
SOC_07	Number of graduates of vocational training focusing	Total
ECON_01	Amount of leveraged new investment (local and	USD
ECON_02	Average annual household energy cost savings	USD
ECON_03	Number of direct jobs created locally	full-time equivalent
ECON_04	Financial contributions into socio-economic	USD
ECON_05	Indirect local jobs created	full-time equivalent
ECON_06	Total investment in new infrastructure	USD
ECON_07	Direct investment spent for R&D in new technology	USD

Impact target	One-time assessment	Progress monitoring			
		Baseline year			
Set target value	Performance value	2020	2021	2022	
5.00	1.00	0.00	0.00	0.00	0.00
250.00	180.00	0.00	0.00	0.00	0.00
80.00	70.00	0.00	0.00	0.00	0.00
44.00	200.00	0.00	0.00	0.00	0.00
44.00	2.00	0.00	0.00	0.00	0.00
44.00	70,000.00	0.00	0.00	0.00	0.00
44.00	3.00	0.00	0.00	0.00	0.00
44.00	95.00	0.00	0.00	0.00	0.00
44.00	10.00	0.00	0.00	0.00	0.00
44.00	5,500.00	0.00	0.00	0.00	0.00
44.00	5.00	0.00	0.00	0.00	0.00
44.00	25.00	0.00	0.00	0.00	0.00
44.00	10.00	0.00	0.00	0.00	0.00
44.00	8,000.00	0.00	0.00	0.00	0.00
4,400,000.00	20,000.00	0.00	0.00	0.00	0.00
44.00	10.00	0.00	0.00	0.00	0.00
44.00	85.00	0.00	0.00	0.00	0.00
44.00	60.00	0.00	0.00	0.00	0.00
44.00	12,000.00	0.00	0.00	0.00	0.00
40,000.00	25,000.00	0.00	0.00	0.00	0.00
44.00	25,000.00	0.00	0.00	0.00	0.00

- Data Input Sub-sheet for a Sample Project Case - requires data on the default as well as customized co-benefit impact areas and related indicators.
- One-time assessment, progress monitoring, or combined assessment

# ADB Co-benefits Tool – Input Sub-sheets (4)



## User-defined impact area, indicators and SDG connections

Co-benefit	Impact Area	Indicator 01		
		ID	Indicator title	Unit
ENVIRONMENT	[User to define applicable Impact Area 1 for Env. Co-benefit]	IND_CUST_ENV_L01	[User to define relevent Indicator 1]	
ENVIRONMENT	[User to define applicable Impact Area 2 for Env. Co-benefit]	IND_CUST_ENV_L02	[User to define relevent Indicator 1]	
ENVIRONMENT	[User to define applicable Impact Area 3 for Env. Co-benefit]	IND_CUST_ENV_L03	[User to define relevent Indicator 1]	
SOCIAL	[User to define applicable Impact Area 1 for Social Co-benefit]	IND_CUST_SOC_L01	[User to define relevent Indicator 1]	
SOCIAL	[User to define applicable Impact Area 2 for Social Co-benefit]	IND_CUST_SOC_L02	[User to define relevent Indicator 1]	
SOCIAL	[User to define applicable Impact Area 3 for Social Co-benefit]	IND_CUST_SOC_L03	[User to define relevent Indicator 1]	
ECONOMIC	[User to define applicable Impact Area 1 for Economic Co-benefit]	IND_CUST_ECON_L01	[User to define relevent Indicator 1]	
ECONOMIC	[User to define applicable Impact Area 2 for Economic Co-benefit]	IND_CUST_ECON_L02	[User to define relevent Indicator 1]	
ECONOMIC	[User to define applicable Impact Area 3 for Economic Co-benefit]	IND_CUST_ECON_L03	[User to define relevent Indicator 1]	

- 9 User-defined Co-benefit Impact Areas - requires inputs from the user to define **customized** Impact Areas, related Indicators and SDG connections, for each of Env., Social and Economic co-benefits.

## ADB Co-benefits Tool – Output Sub-sheets (1)

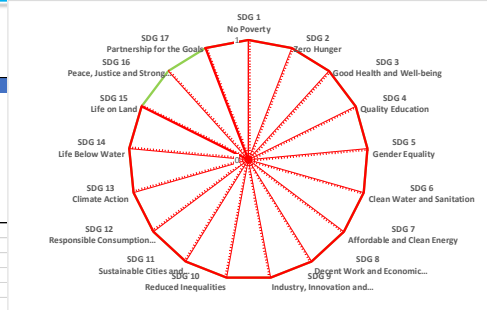
The screenshot shows the 'Data Output Segment' of the ADB Co-Benefits Tool. At the top, there is a navigation bar with icons for home, refresh, back, and settings, along with a 'technical notes' button. Below this, the title 'ADB Co-Benefits Tool Data Output Segment' is displayed. A 'View' section contains a 'Co-Benefits Report for Case #' label, a text input field with the number '1', and a 'GO' button. The 'Portfolio Analysis' section features two buttons: 'Go to Portfolio Report' and 'Go to Impact Balance', each with a checklist icon. A 'go to TOP' button is located at the bottom right.

- **Data Output sheets** provides results for essential assessment parameters, and generates an **overall project summary report**.
- Data outputs are calculated by **pre-defined formula** - no user input required.



# ADB Co-benefits Tool – Summary Report

Report Sheet		Solar PV Mini Grid Project in Rural India			
Test Case 01					
Target country	INDIA				
Sector	ENERGY				
Implementing organisation	ADB				
Intervention start	Jan-22				
Intervention conclusion	Dec-29				
Date of assessment	Apr-22				
<b>ENERGY</b>					
Co-benefit	Impact Area	Indicator	Value	Unit	
Co-benefit	Impact Area	Indicator title	Value	Unit	
				SDGs Mapping	
ENVIRONMENT	Improves air quality	Reduced PM2.5 levels in the vicinity of intervention	20%	% reduction	SDG 3, 11
		Number of beneficiary households benefited by cleaner air	100	Total	SDG 3, 11
ENVIRONMENT	Improves land fertility	Restored land area	20	Km2	SDG 2, 12, 15
		Increased agricultural production	10%	%	SDG 2, 12, 15
ENVIRONMENT	Increases material circularity and recycling	Number of beneficiary farming households	50	Total	SDG 2, 12, 15
		Reduced total solid waste	10	%	SDG 11, 12
ENVIRONMENT	Increases environmental and sustainability awareness	Staff members responsible for internal sustainability awareness programmes and sustainable practices	30	Total	SDG 11, 12
		Increased environmental and sustainability awareness initiatives for the local community	4	%	SDG 4, 12, 13
ENVIRONMENT	Improves water quality and water use efficiency	Reduced annual water consumption	5000	m3	SDG 3, 6, 12, 14
ENVIRONMENT	Reduces GHG emissions	GHG emissions avoided	25000	tCO2e	SDG 13
		Increased renewable energy capacity	50	MW	SDG 13
ENVIRONMENT	Improves conservation of natural resources including biodiversity	Avoided/replaced fossil-fuels	200	MMBTU	SDG 12, 14, 15
		Number of households provided access to advanced clean technologies (cooking, safe water, biogas, etc.)	50	Total	SDG 2, 3
SOCIAL	Improves nutrition and balanced diets	Women in senior management positions	60	Total	SDG 4, 5, 10
		Newly employed women	30	Total	SDG 4, 5, 10
SOCIAL	Creates a nurturing environment for the young generation	Number of schools supported	5	Total	SDG 4
		Number of beneficiary children	300	Total	SDG 4
SOCIAL	Promotes future-oriented skilling	Number of graduates of vocational training focusing on renewable energy and energy efficiency	200	Total	SDG 1, 4, 8
ECONOMIC	Attracts new investments	Amount of leveraged new investment (local and foreign)	10000	USD	SDG 9, 10, 17
		Number of new enterprises in renewable energy and energy efficiency	15	Total	SDG 9, 10, 17
ECONOMIC	Promotes consumer savings	Average annual household energy cost savings	100	Total	SDG 1, 7
		Total electricity saved / produced for households	5000	kwh	SDG 1, 7
ECONOMIC	Creates new job opportunities	Number of direct jobs created locally	120	Total	SDG 1, 8, 10
		Number of direct high-skilled jobs created locally	60	Total	SDG 1, 8, 10
		Number of temporary/part-time jobs created	60	Total	SDG 1, 8, 10
ECONOMIC	Promotes local markets and local value chains	Indirect local jobs created	150	Total	SDG 8, 9
ECONOMIC	Supports the development of physical infrastructure	Total investment in new infrastructure	50000	USD	SDG 7, 9
ECONOMIC	Promotes industrial and technological innovation	Direct investment spent for R&D in new technology	2000	USD	SDG 9, 11





## ADB Methodology – Next Steps

	Steps	Timeline
1.	Initial feedback on the ADB Methodology approach and framework	7-14 Feb 2022
2.	Piloting for stress testing the ADB Methodology	4-28 Feb 2022
3.	Peer Review of the ADB Methodology and the Tool	15 – 31 March 2022
4.	Public consultation on the ADB Methodology and the Tool	15 – 30 April 2022







## ADB Methodology – Request your Inputs

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1. What areas of improvement would you suggest on the **ADB Methodology approach and its framework**?
2. Do the **sector specific indicators** sufficiently capture the impact areas?
3. What are the considerations for incorporating **adaptation and resilience assessment** into the **methodology approach and its framework**?
4. Do you have any suggestions on **mapping the impact areas to the SDGs**?
5. Any other feedback that would help support and improve the methodology?





Thank You

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