UNITED NATIONS DEVELOPMENT PROGRAMME

Financial assessments to address climate change

Introduction
to the training

Agenda

DAY 1

- Introduction and context of the project
- Why doing a financial assessment?
- UNDP financial assessment methodology

DAY 2

- Group work by sector
- Reporting guidelines
- Elaboration of national workplan

DAY 3

- Group work by sectors

Objectives:

- Build capacity for national team to use the financial assessment methodology
- Identify work plan

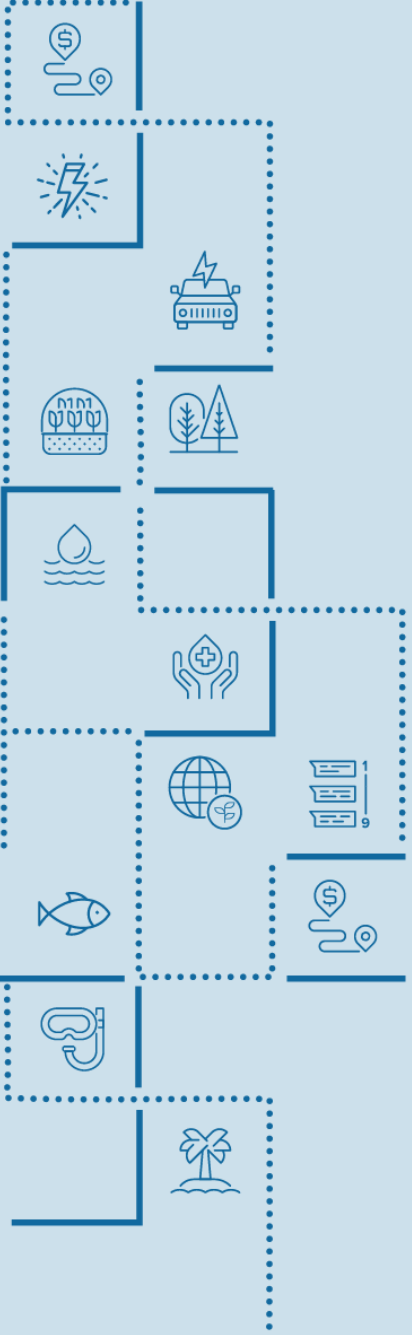
Expected national benefits:

- Enabling national experts to carry out financial assessments
- Benefits for national experts and their institutions in their daily work (beyond the financial assessments)

Modalities

Modalities of the training:

- Presentation and plenary discussion
- Group work for each sectoral team

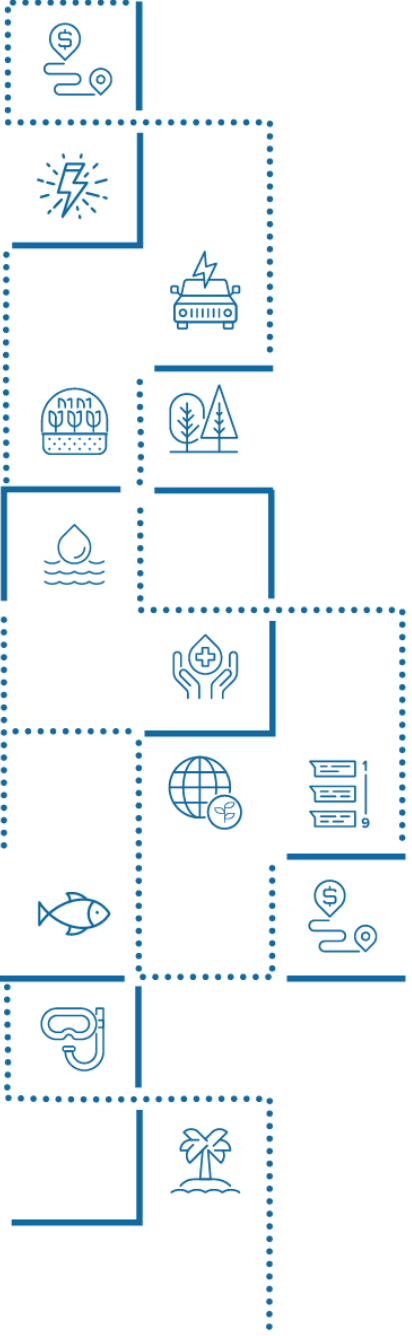


Preparations

Preparations done:

- Sector selection
- National expert team identified
- National interministerial dialogue on climate change held earlier

Introduction: climate change and global negotiations



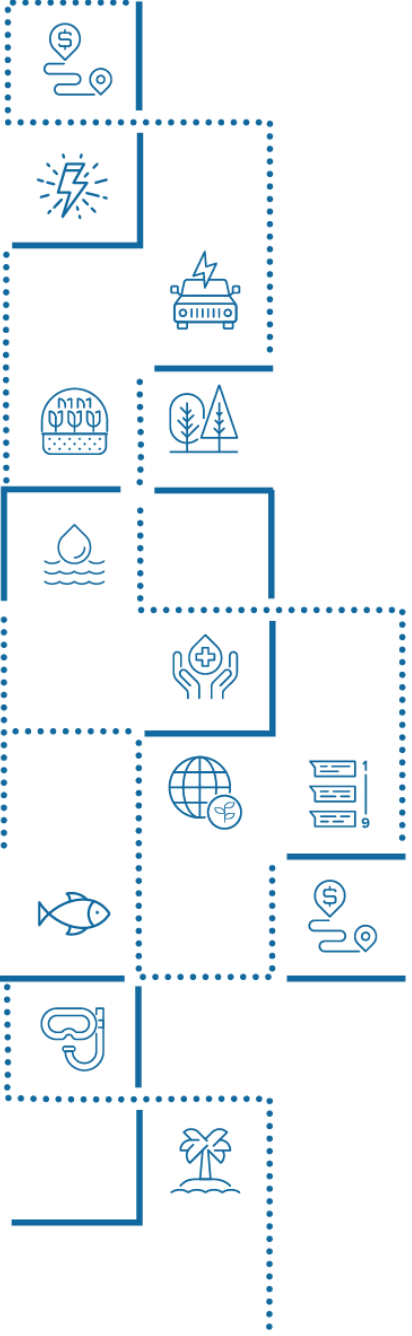
Why consider Climate Change in planning?

Why consider Climate Change in development planning:

- Climate change impacts different sectors, cross-cutting
- If not addressed in long-term action, climate change costs will be high

Global negotiations call for nationally determined commitments:

- Countries are identifying national climate change targets for mitigation and adaptation



Climate change negotiations

Key messages from the negotiations:

- **Hybrid approach** of the Paris Agreement:
  - Bottom up: all countries (through their Nationally Determined Contributions - NDCs) define how they will address the Climate change)
  - Top-down: ratchet mechanism (increase ambition every 5 years)
- The Paris Agreement ensures that the individual **development priorities** of the country are integrated into the targets of the global climate.

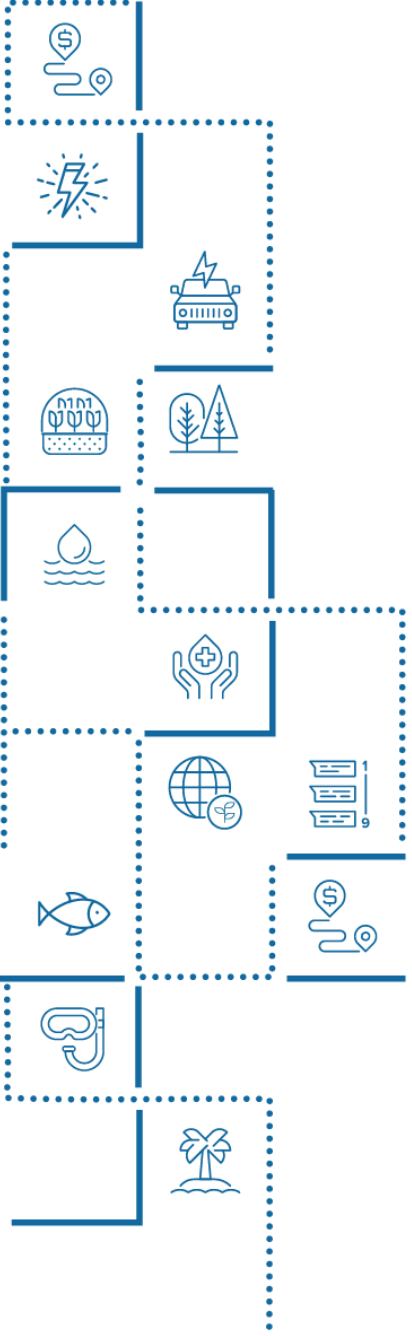
Benefits of planning

Importance of planning tools:

- To identify national priorities
- To facilitate cooperation among different ministries
- To build strategies to deal with climate change
- To create a coherent base of information of climate change impacts on and opportunities in key sectors

These points are addressed through the financial assessments

Investment and financial flows assessments: the context



Why a financial assessment?

The financial assessments:

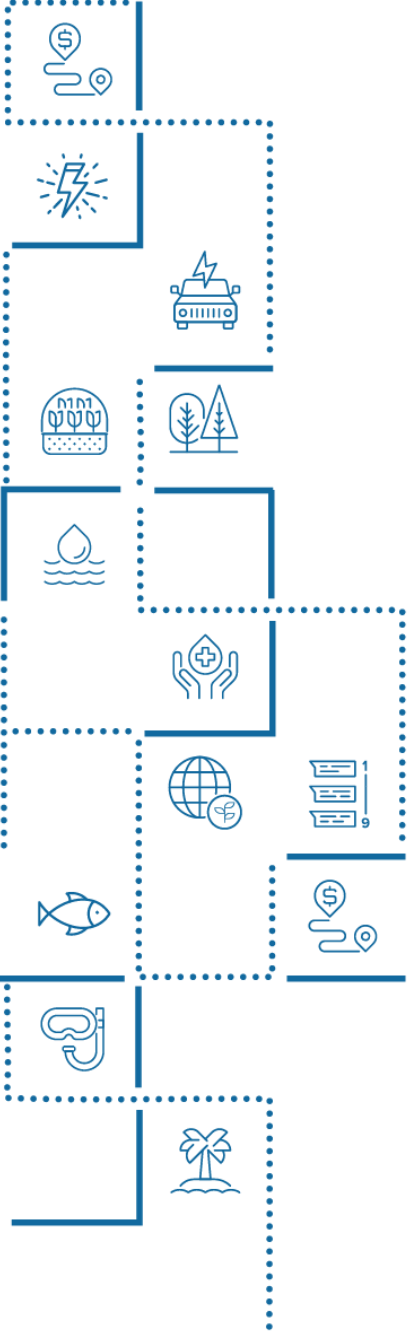
- Use information on past and current Investment and Financial Flows from both **public and private sector** to establish **future scenarios** on financial needs to implement mitigation action.
- The assessments not only look at full costs of mitigation action/strategies, but help countries determine disaggregated information on necessary investment sources and entities, as well as investment timing.

Why a financial assessment?

Assessments of investment and financial flows not only put a "price" on climate change activities,

but provide comprehensive approaches how **to analyse, restructure and make national investments more efficient** to support climate change adaptation and mitigation,

and provide a tool to **implement national plans and measures.**



What challenge does the approach address?

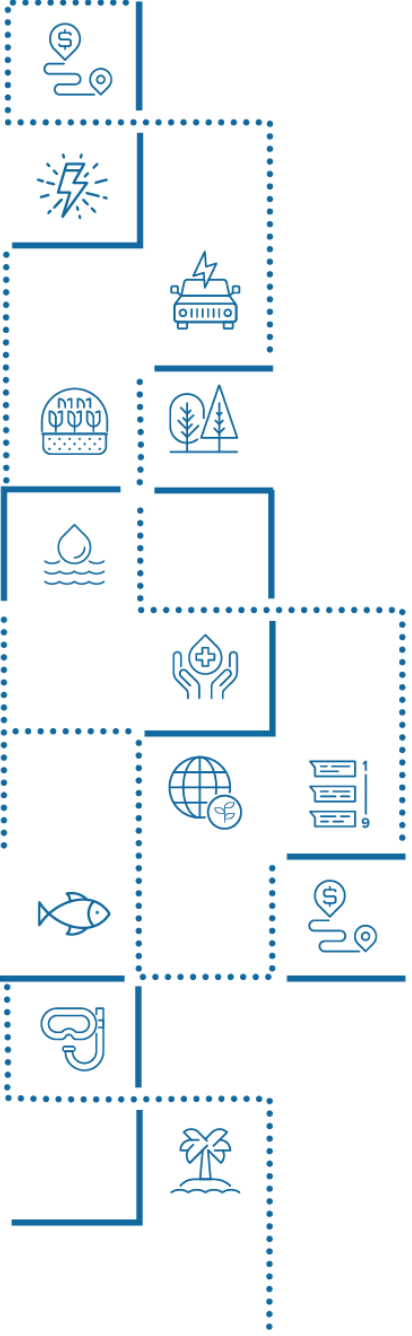
Supports countries to cost the investment and financial flows needed to mitigate/adapt to climate change as determined in the NDC:

- **Implementation bottleneck:** questions regarding costs of these measures, potential funding sources, implementing entities and timing of investments.
- Financial assessments address these questions, not only to quantify the costs of measures within their NDCs, but also to analyse full national investment landscape to determine funding sources, implementation entities, investment timings.
- The full financial landscape of public and private sector investment is assessed to structure finance efficiently and to budget additional mitigation efforts coherently.

What challenge does the approach address?

Assessments of investment and financial flows are crucial tools to:

- **Break down** national climate change targets into action points.
- **Determine** how much is already being spent on activities related to climate change from public and private sector.
- **Identify** the investment and financial flows to implement these measures, as well as the possible sources of finance, the implementing entities and the timing of investments.
- **Structure** national budgets and investments more efficiently.



What challenge does the approach address?

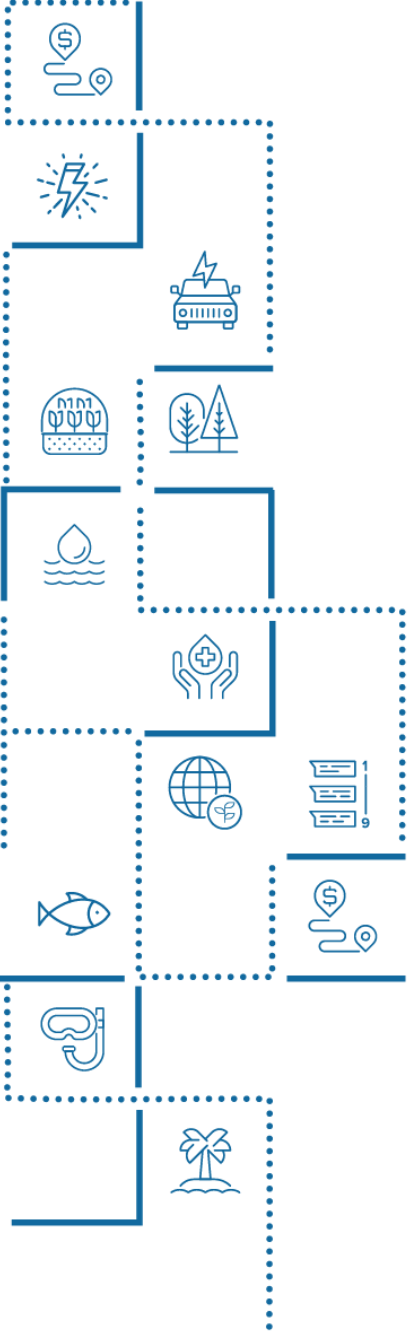
Using the methodology, countries can:

- **Develop policies and regulatory framework,** and the financial architecture to induce the necessary change.
- **Involve key stakeholders** not only in the “Environment Community”, but also the Ministries of Finance and Planning, as well as counterparts of the private sector.
- Become **‘Climate Finance Ready’** and mobilize additional resources.
- Move from planning to **implementation.**

Why a financial assessment?

What questions does the financial assessment help answer?

- What are the adaptation/mitigation options in certain sectors in the next 25 years?
- Who is investing in the sector/major players and sources?
- What shifts/increase in investment and financial flows will be needed in the sector?
- What will be the overall needs for additional investment and financial flows?



What challenge does the approach address?

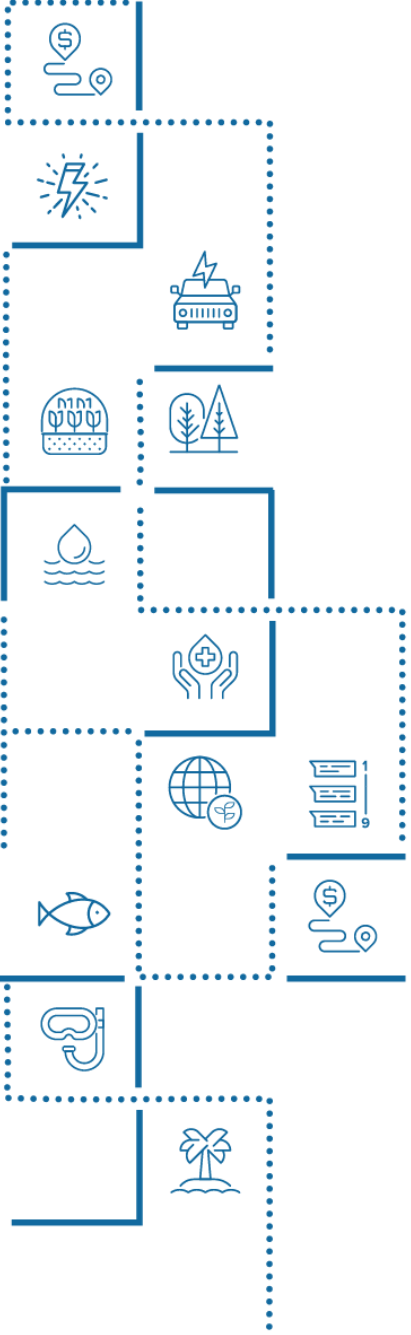
Key features of the methodology:

- The financial assessments use current and historic information to **project** future needs.
- **Articulate needs** to address climate change and to implement national climate targets (e.g. NDC, LT-LEDS) in a systematic way.
- **Determine the magnitude** of national efforts required to address climate change.
- **Encourage long-term planning** that incorporates climate change investment decisions.

Key features of the methodology

Elements of the methodology:

- Engage key ministries and identify **national target to be assessed/key sectors**
- Organize **National Interministerial Dialogue**
- Organize **training** on financial assessment methodology
- Conduct **financial assessments**:
  - Project baseline scenario and mitigation/adaptation scenario.
  - Cost scenarios: attributing Investment Flows and Financial Flows to each activity: Information broken down to investment entities, years, activities.
  - Subtract values of baseline scenario from mitigation/adaptation scenario to identify necessary investment changes.
  - Develop policy recommendations on how to incentivize the necessary changes.
- Conduct **National Interministerial Dialogue**



Key features of the methodology

The assessments are useful to:

- **Understand** the magnitude and intensity of efforts necessary to address climate change at the national level and implement national climate target.
- **Facilitate** the integration of climate issues into national economic and environment planning.
- **Support** the diffusion of relevant information among policy makers for adequate planning.
- **Contribute** to the development of positions for the international negotiations.

Key features of the methodology

Key results

UNDP financial assessment methodology prepared & peer reviewed in two global meetings

26

Initial **National Dialogues,** >1700 participants

Financial assessments completed in 22 countries, bringing to ~60 assessments

>500

experts **from 22 countries trained** in UNDP methodology

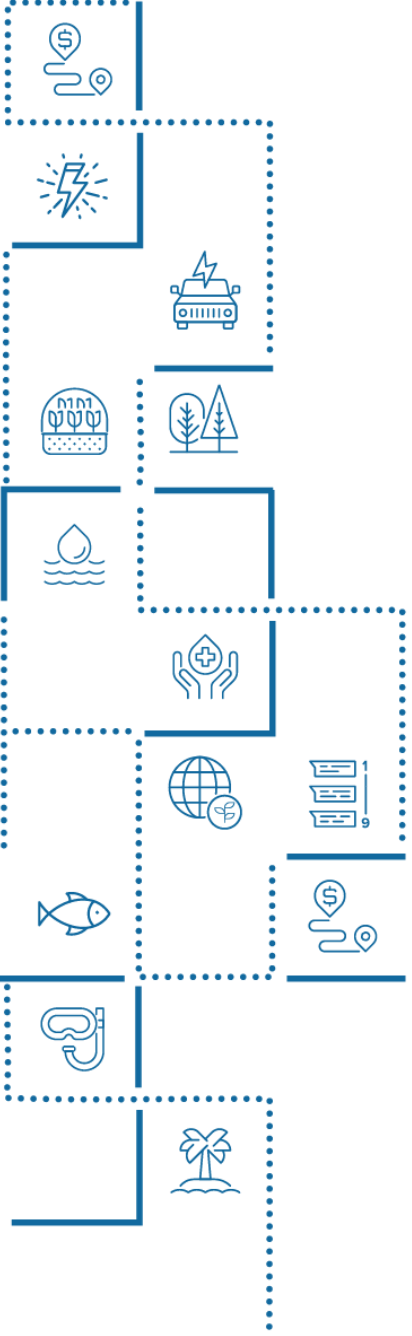
22

Concluding **National Dialogues,** >1100 participants

Key features of the methodology

Key resources:

- Chapters of the methodology and capacity-building material available in four languages:
  - **Chapter 1 & 2:** General methodology
  - **Chapter 3-14:** Sectoral guidance for: Energy, Transport, Forestry, Agriculture, Water, Health, Biodiversity, Fisheries, Tourism and Coastal Zones



Key features of the methodology

Support products:

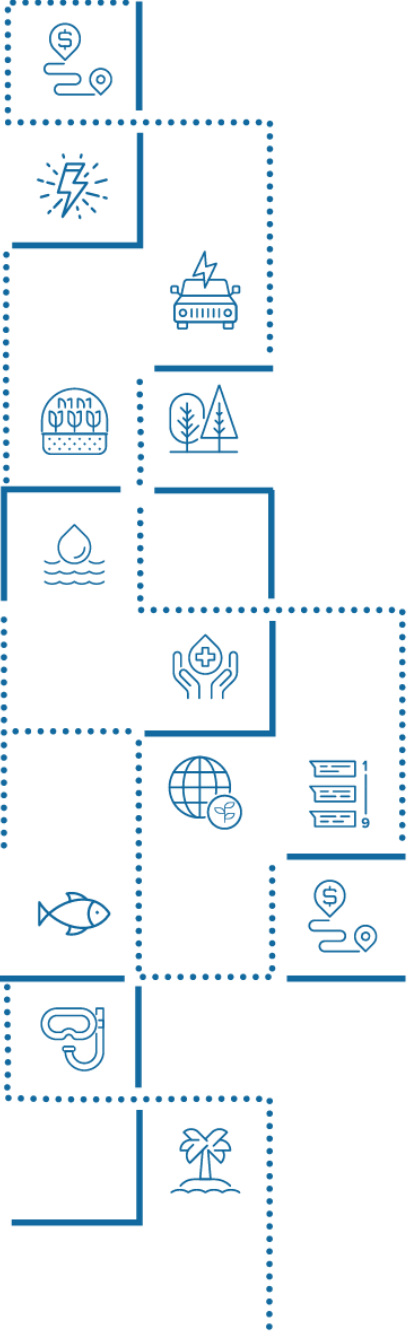
- Work plan Guidance, Methodology, Reporting Guidelines
- Excel Worksheets for investment and financial flows calculations
- Template for Test Run of Methodology

Results products:

- Completed financial assessments
- Executive summaries for policy makers for each country
- Results flyers for each country
- Case studies: Costa Rica, Niger, Paraguay, Turkmenistan
- Synthesis document on results and lessons learned

Q&A
Clarifications

Process stages and support



Goals and outcomes

Goals:

- Identify how to implement national climate target (e.g. NDC, LT-LEDS)
- Determine financial requirements
- Define policies and incentives

Outcomes:

- National awareness and capacities raised to address climate change
- Investment and financial flows assessed to address climate change in national key sectors: What are the financial requirements and how can they be realized?

Sequencing of national activities

Preparation stage

Pre-assessment preparation (2 months)

- Identify how to implement national climate target (e.g. NDC, LT-LEDS)
- Determine financial requirements
- Define policies and incentives

National dialogue on climate change

Organize national dialogue on

- Climate change
- National target to be assessed

Implementation stage

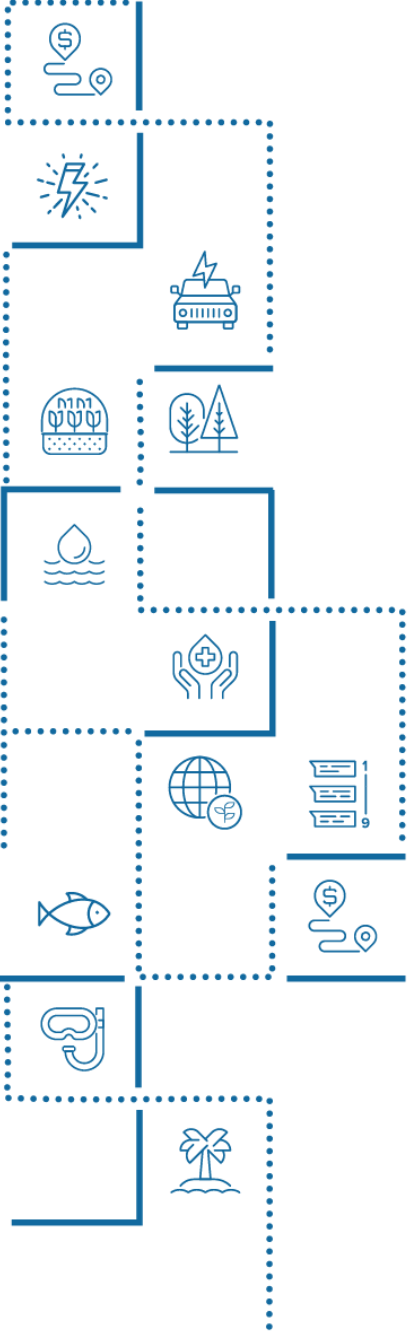
Financial assessment to address climate change: technical and policy process (6-8 months)

Use UNDP financial assessment methodology

Reporting stage

National dialogue presenting results and discussing follow-up

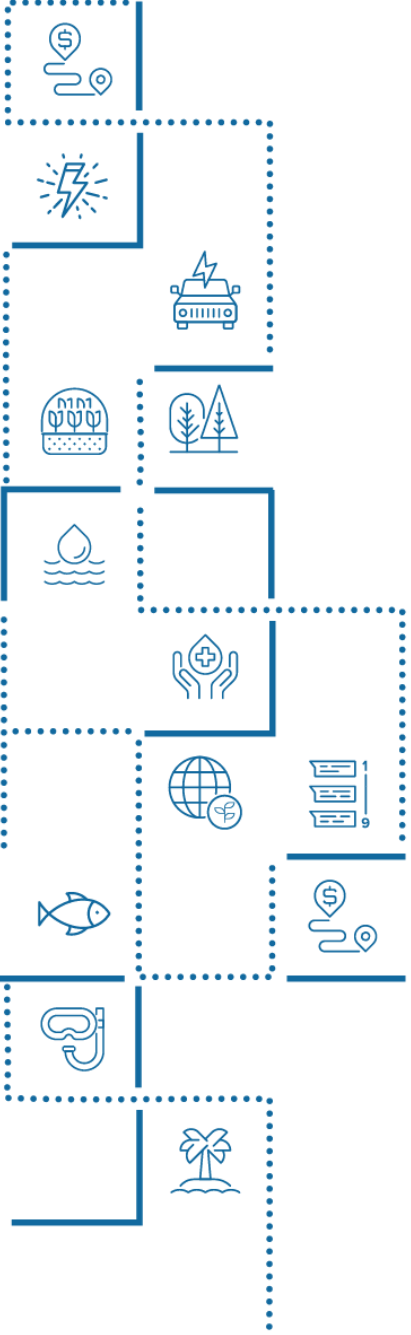
- Present financial assessment results
- Discuss follow-up activities



Preparation stage (1-2 months)

Define and agree:

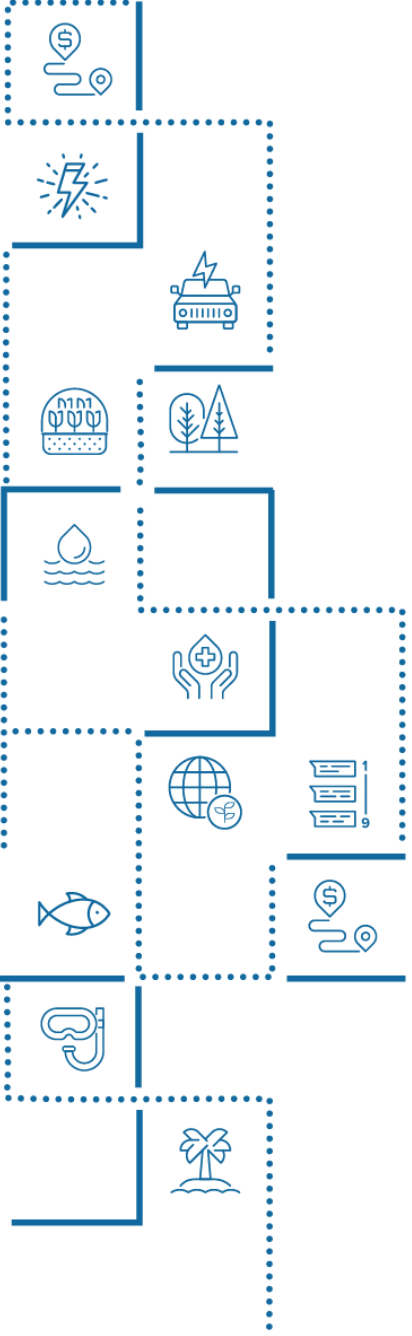
- National objectives
- Target to be assessed
- Financial assessment team
- Capacities/needs: methods, information…
- Institutional arrangements
- Available work to build on: scenarios, policies, strategies…
- Work plan/budget → Work plan guidance available



Implementation stage (5 – 6 months)

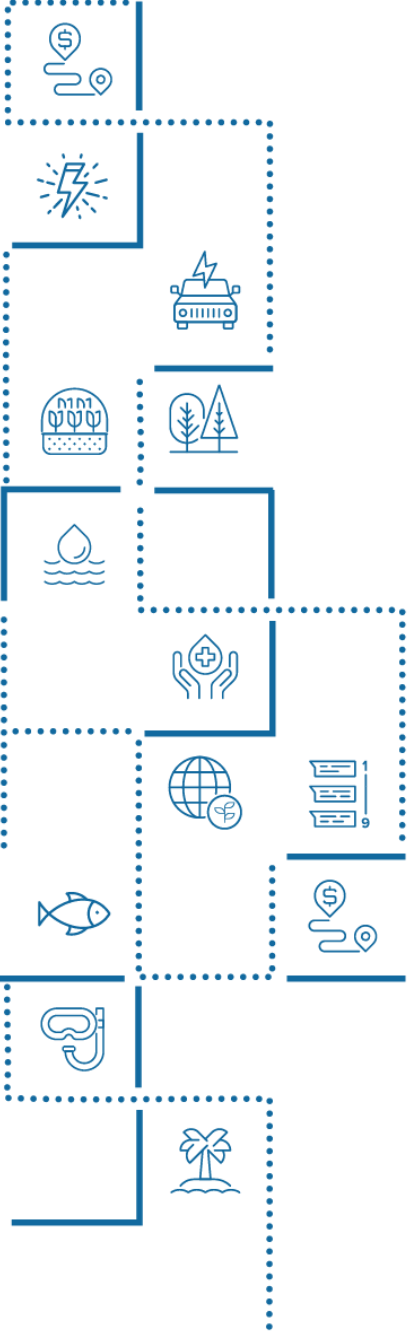
Conduct financial assessment using:

- UNDP financial assessment methodology and sector-specific guidance
- Excel spreadsheets for data collection and calculations
- Reporting guidelines



Reporting stage

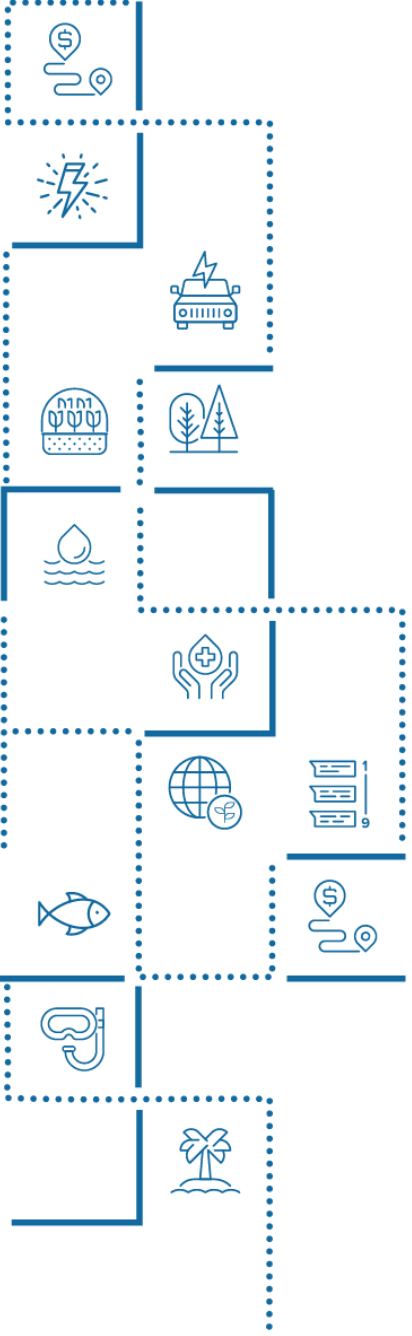
- Ongoing activity, not starting at the end of the assessment
- Define outcome (decision-making tool, policy tool) to draft report
- Ensure good drafter for preparation of report(s)
- Purpose: documentation of steps, ensuring transparency of decisions taken, credibility of outcomes and clarity for later follow-up work



Guidance available + support provided

Support to the 3 stages of the project:

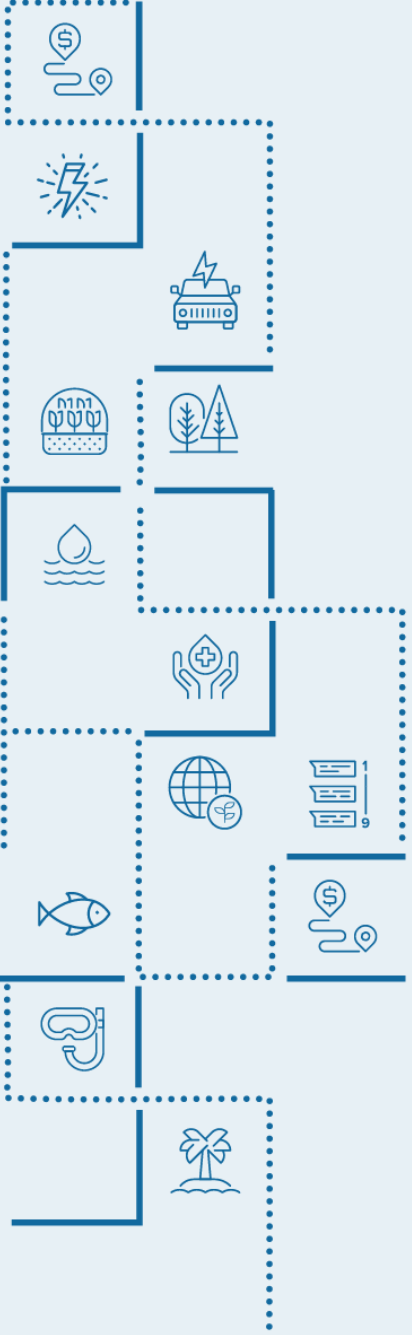
- Work plan guidance
- Methodological guidance and excel spreadsheets
- Reporting guidance



Key features of the methodology

About the financial assessment methodology:

- The financial assessments were developed by UNDP in 2008, ~ 60 assessments carried out as of January 2025.
- Introduction about the financial assessments: https://climatepromise.undp.org/tags/investment-and-financial-flows-assessments
- Financial assessment methodology: https://climatepromise.undp.org/research-and-reports/undp-methodology-assessing-investment-and-financial-flows
- Completed financial assessments, summaries for policy makers and 4-page results flyers: https://climatepromise.undp.org/research-and-reports/results-domestic-finance-assessments

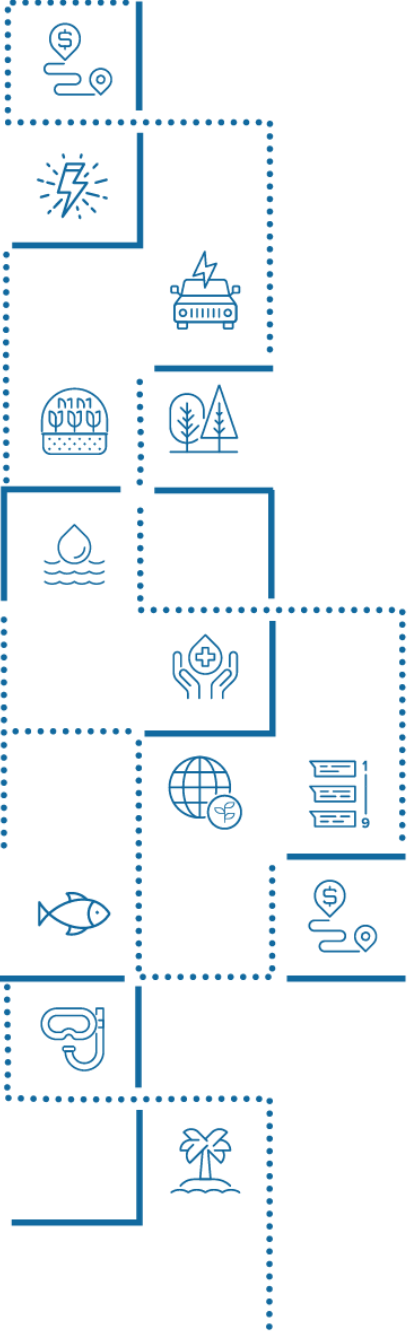


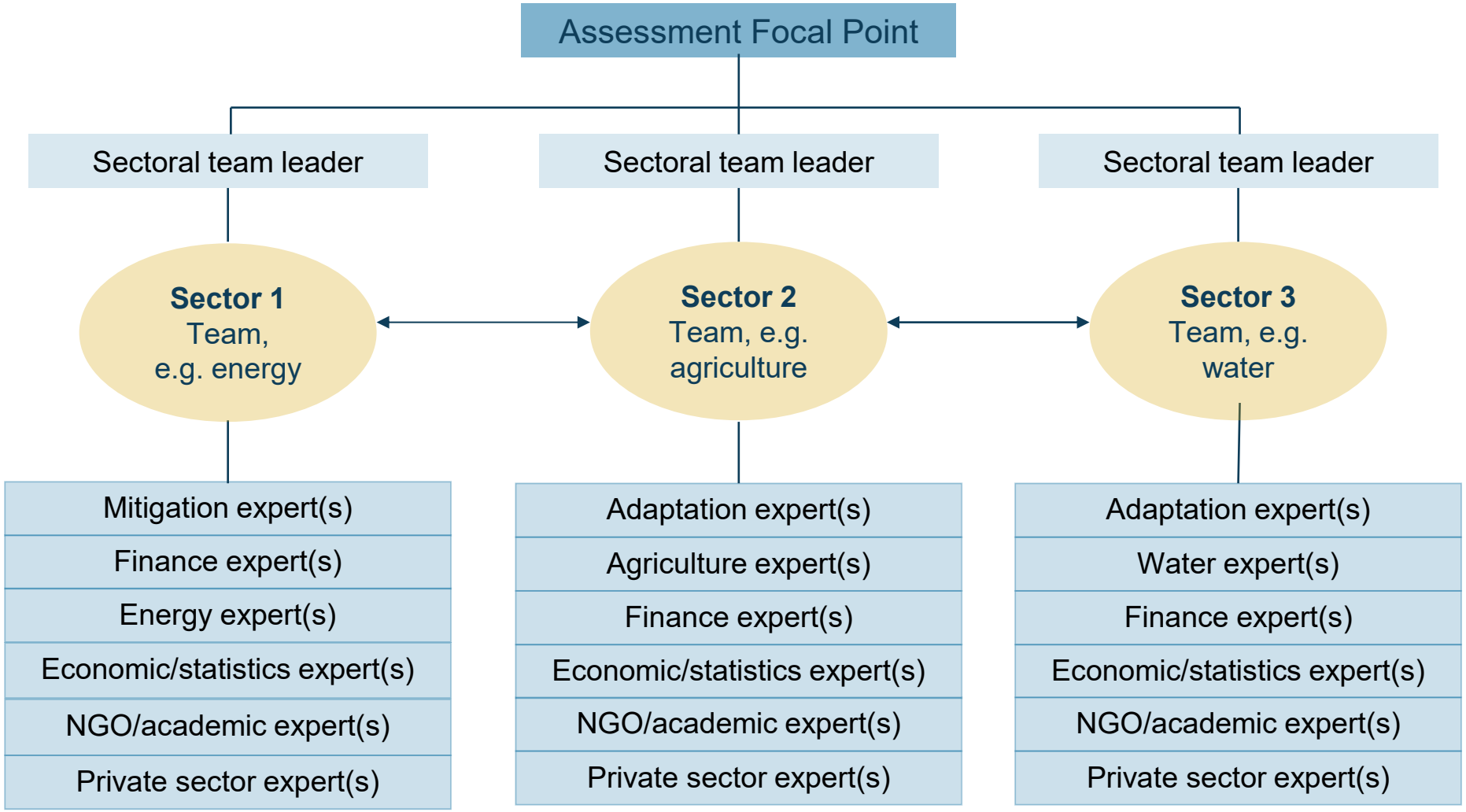
Country checklist

Country checklist:

- National target to be assessed selected
- Work plan developed, it includes:
  - ☑ Roles and responsibilities
  - ☑ Timeline
  - ☑ Budget
- Team established
- Institutional agreements reached about how to:
  - ☑ Share information
  - ☑ Collaborate

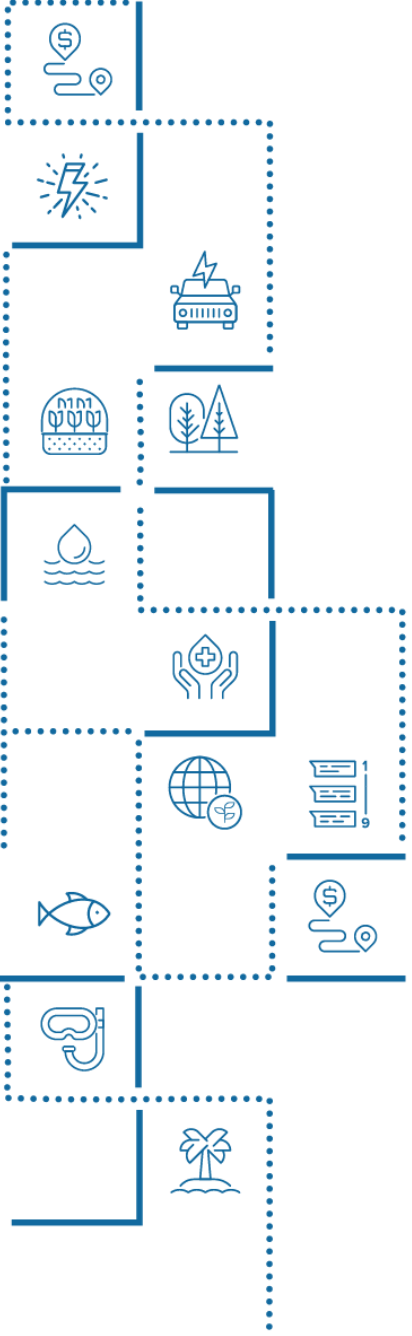
Team composition





Q&A
Clarifications

The financial assessment



What challenge does the approach address

Key questions the approach addresses:

- What is needed to implement the national climate change target?
- What are adaptation/mitigation options for key sectors in next 20 years?
- Which are major sources of public and private funds and who invests?
- What changes in investment and financial flows are needed in the sector?
- What additional investment and financial flows are needed to address climate change?

Definition IF, FF and O&M

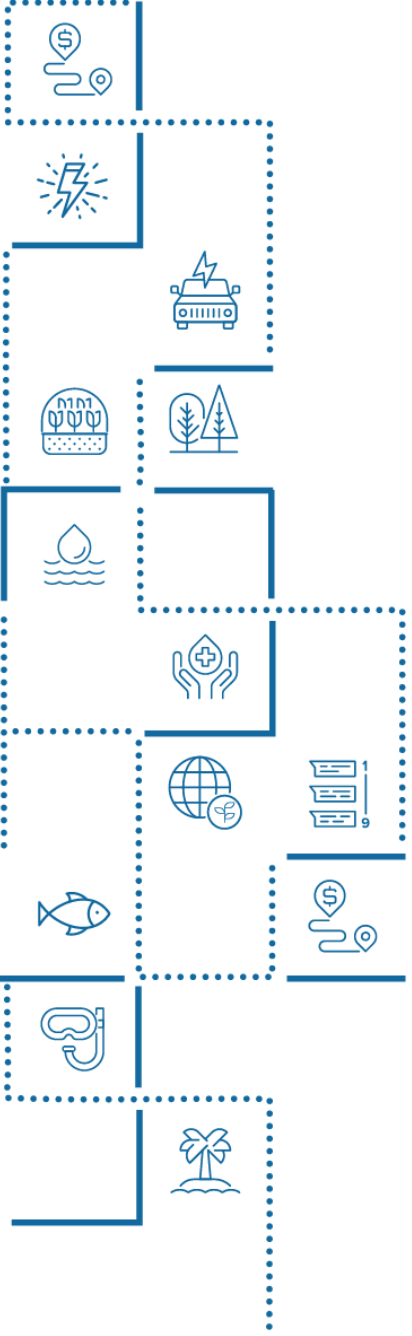
Investment Flow:

- An investment flow (IF) is the **capital cost** of a new physical asset with a life of more than 1 year.
- Limited to **new physical assets**, because of climate change implications for the duration of the operating lives of the facilities and equipment purchased.

Definition IF, FF and O&M

Financial Flow:

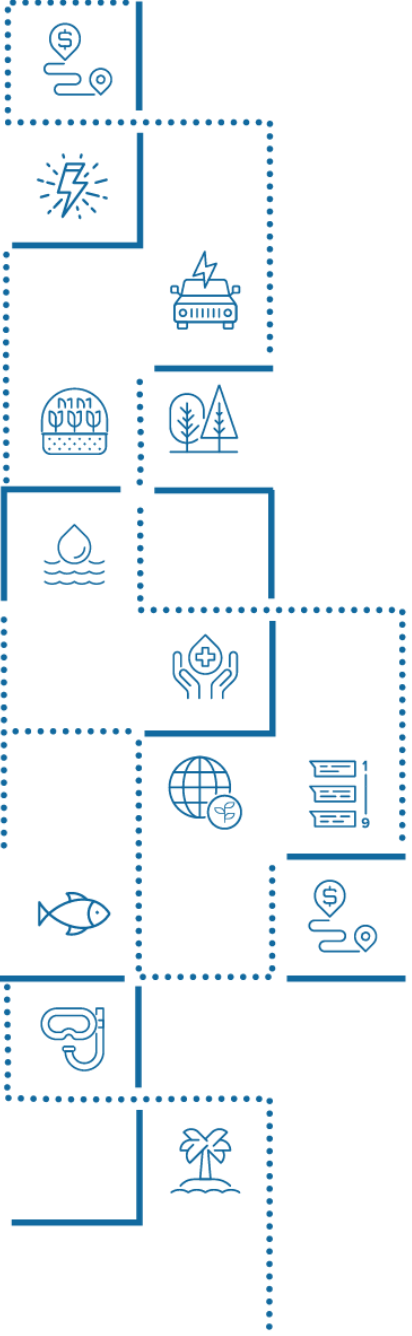
- A financial flow (FF) is an **ongoing expenditure on programmatic measures;** financial flows encompass expenditures other than those for expansion or installation of new physical assets.



Definition IF, FF and O&M

Operation & Maintenance (O&M) costs of new physical assets:

- The physical assets purchased with investment flows will have operation & maintenance (O&M) costs associated with them.
- Can vary considerably among investment flow types and have a **significant effect on the total** cost of an investment.



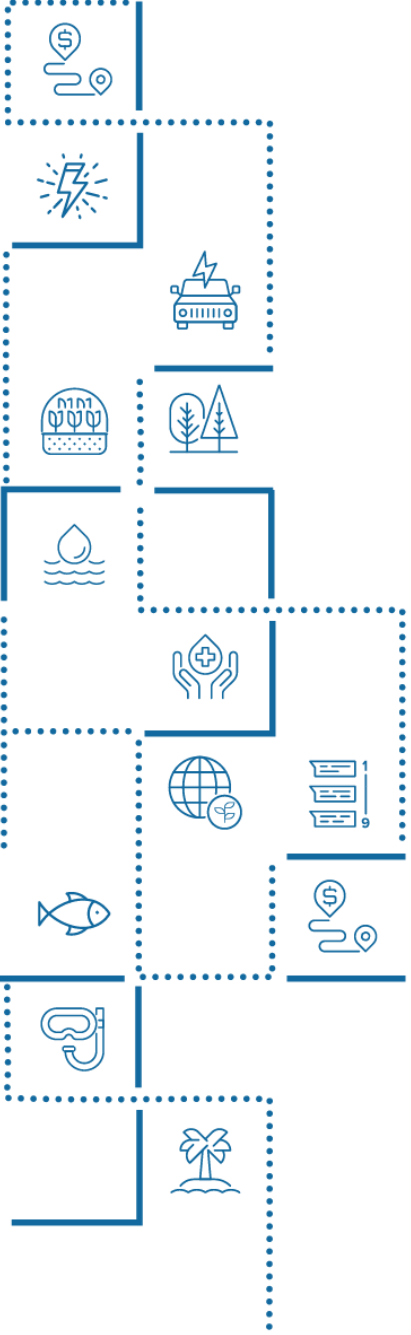
Key terms

Sources of investment and financial flows:

- National capital and subsidies
- External debt
- Foreign assistance
- National and foreign loans
- Etc.

Investment and financial flows entities:

- Households
- Corporations
- Government



Key terms

Scenario: Coherent and plausible characterization of the future conditions of a sector for a specific period (2025-2050)

- **Business-as-usual (BAU):** describes what happens without new policies to address climate change.
- **Target scenario:** includes new measures to reduce GHG emissions or to respond to potential impacts of climate change.

Note: The assumptions regarding the future socio-demographic and climatic conditions are the same for both scenarios, only the policy activities are different.

Key terms

What is adaptation?

Adaptation refers to adjustments in ecological, social or economic systems in response to actual or expected climatic stimuli and their effects (UNFCCC).

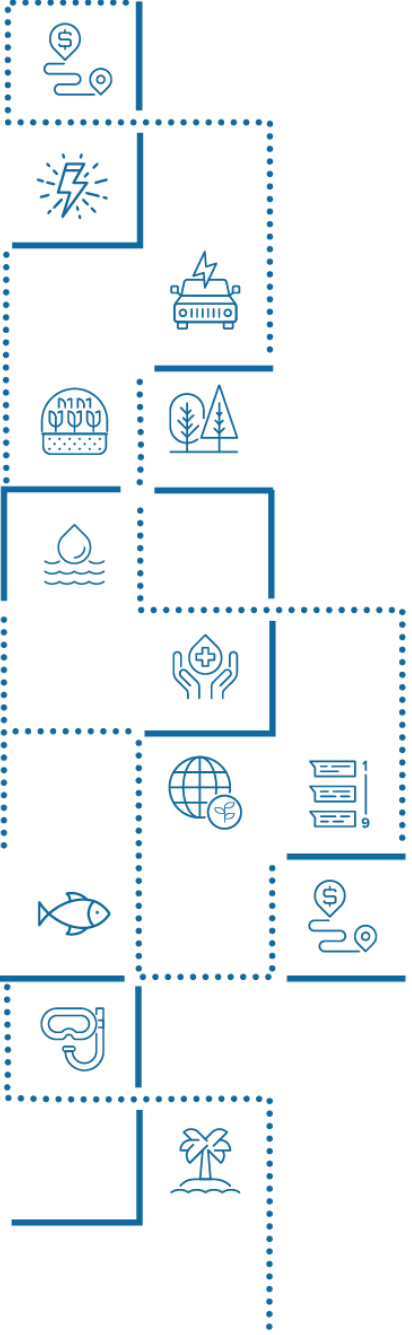
- Relates to building resilience to climate change impacts.
- Requires adjustments in all aspects of society, the environment and the economy.
- Linked to economic development, poverty reduction and disaster risk management
- Requires planning capacity for short and long term
- More on adaptation: https://unfccc.int/topics/adaptation-and-resilience/the-big-picture/introduction

Key terms

What is mitigation?	Efforts to reduce emissions and enhance sinks are referred to as “mitigation” (UNFCCC).

- The Paris Agreement, together with the Agenda 2030 and the Sendai Framework for Disaster Risk Reduction, provide an unprecedented opportunity to create an integrated development approach for fostering inclusive and resilient communities with a decreasing carbon footprint.

- More on mitigation: https://unfccc.int/topics/introduction-to-mitigation



Sources of information

Basis for the assessment:

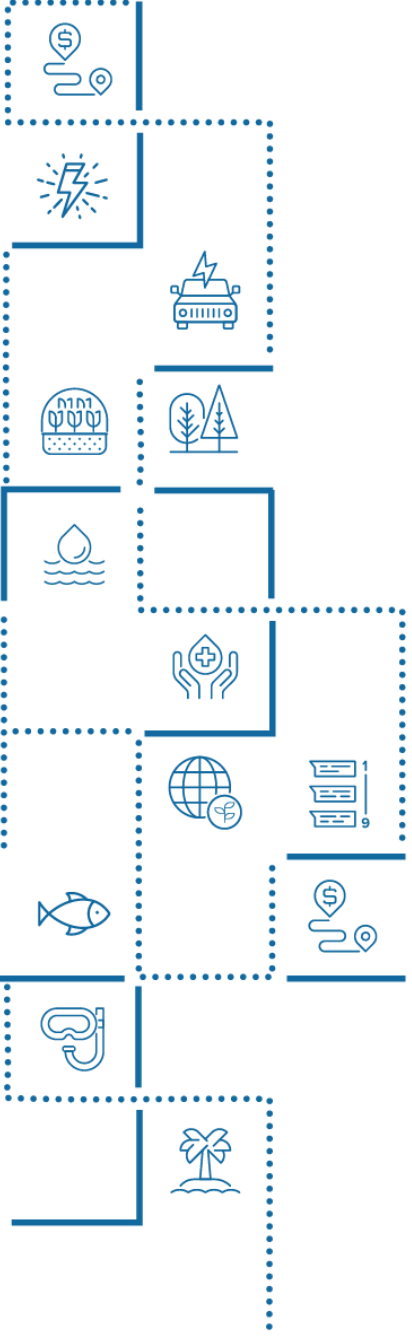
- National target that will be assessed (e.g. NDC, LT-LEDS…)

Sources of information include:

- Existing strategies/plans/studies on climate change or development
- National Communications
- National Adaptation Plans (NAPs)
- The system of national accounts (SNA)
- Vulnerability studies, Technological Needs Assessment
- Sectoral data and projections from Ministries / Statistics Directorates / Research Centers / Business Associations

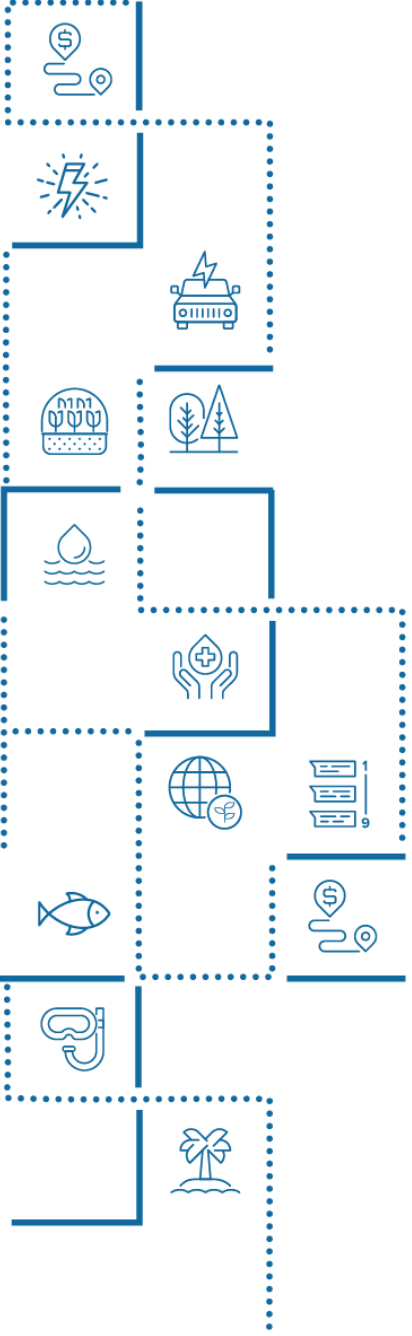
Q&A
Clarifications

Financial assessment methodology – step by step



Methodology - Basics

1. **Assess Investment and Financial Flows for two scenarios:**
   - Baseline scenario
   - Target scenario
2. **Calculate shifts and additional Investment and Financial Flows necessary to implement new measures to address climate change** (difference between the two scenarios).



Methodology - Basics

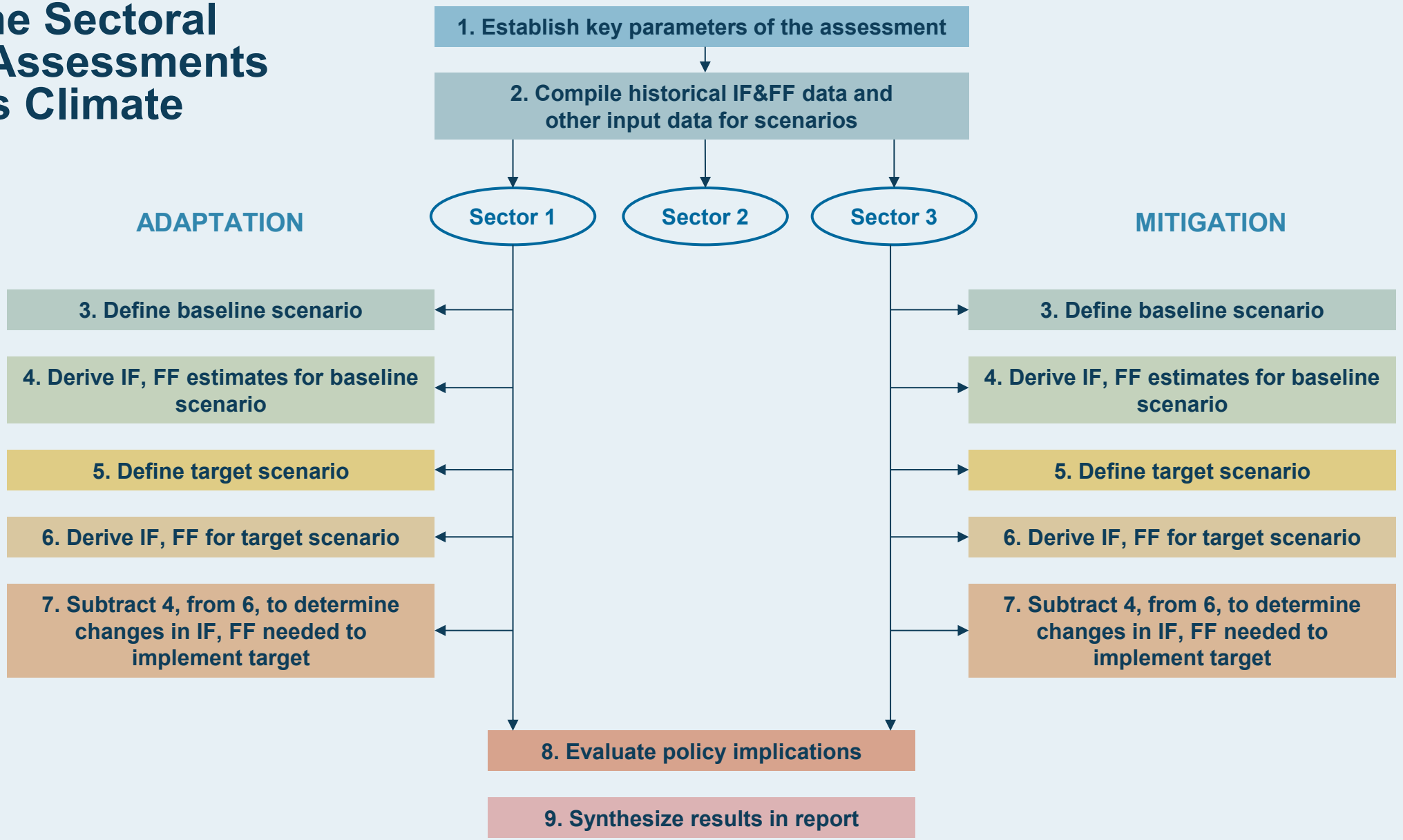
What the national team needs to define…

- What are investment and financial flows and O&M?
- How to calculate and present this information.
- Which are possible sources of information?

What the methodology defines…

- Which key measures to address climate change (mitigation/ adaptation) will be considered in each sector from a national perspective (prioritization criteria)/
- Key trends in each sector (definition of scenarios).
- To which sector to assign measures or policies in case of overlaps.

Steps in the Sectoral Financial Assessments to Address Climate Change



Step 1. Establish key parameters of assessment.

Step 2. Compile historical IF, FF and O&M cost data (and subsidy cost data if included explicitly) and other input data for scenarios.

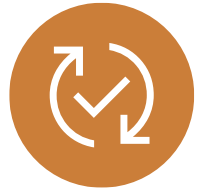
Step 3. Define baseline scenario.

Step 4. Identify annual IF, FF and O&M costs (and subsidy costs if included explicitly) for the baseline scenario.

Step 5. Define target scenario.

Step 6. Identify annual IF, FF and O&M costs (and subsidy costs if included explicitly) for the target scenario.

Step 7. Calculate the changes in IF, FF and O&M costs (and in subsidy costs if included explicitly) needed to implement target scenario.



Step 8. Identify policy implications.

Step 9. Synthesize results and complete the report.

Step 1.

Establish key parameters of the assessment.

- Define detailed scope of the assessment/sector.
- Identify preliminary mitigation or adaptation measures.
- Specify base year and assessment period.
- Select analytical approach.

Identify climate change measures

Define detailed scope of the assessment/sector:

- Identify which national climate target to assess (e.g. NDC, LT-LEDS…).
- Determine whether to assess key sectors or full economy.

Identify climate change measures

Mitigation/adaptation measures:

- Selection of measures to be based on the national target being assessed (e.g. NDC, LT-LEDS…)
- Often national targets are general and need to be specified
  This can be based on:
  - National and sectoral priorities
  - Existing groundwork on mitigation/adaptation
  - Feasibility of implementation
  - Data availability
  - Development benefits and other (environmental, economy and social) co-benefits of measures

Identify mitigation or adaptation measures

Preliminary mitigation/adaptation analysis

- Take stock of:
  - Existing sectoral or national plans
  - National Communications
  - Technology Needs Assessments (TNAs)
  - National Adaptation Plans (NAPs)

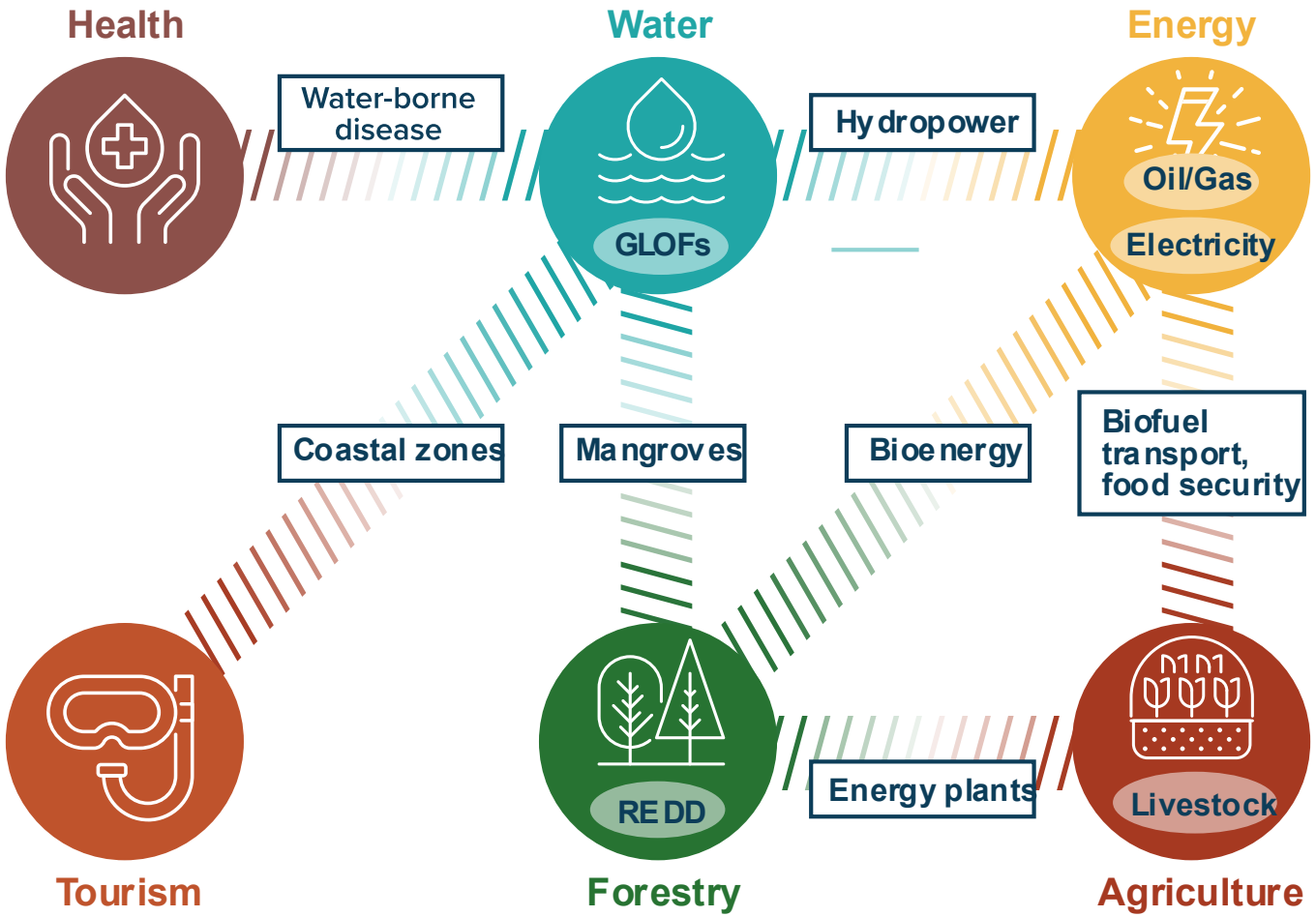
Define scope of the sector

How to scope a sector:

- Determine specific subsectors that will be included
  - e.g. within agriculture: crop cultivation, livestock, fishing …
- Determine which processes, activities, entities and geographic regions are included in the sector

Define scope of the sector

Potential sectoral overlaps



Define detailed scope of the sector

Addressing additional benefits:

- Additional benefits may be analysed **qualitatively**, e.g.:
  - Change of crop type helps to adapt and emits less GHG
  - Enhanced water management to adapt to climate change can also have positive health effects
  - Job creation through a new policy

Specify base year & assessment period

Base year and assessment period:

- Base year: latest year with available data (e.g. 2025)
- Assessment period should match time horizon of national target being assessed (e.g. 2025-2050)

Cost accounting issues:

- US$ or national currency
- Costs for assets should be reported in the year in which they are expected to be incurred
- Discounting of costs should be done

Select analytical approach

Any of these analytical approaches can be used to develop scenarios, and associated streams of annual investment and financial flows and O&M costs:

- A suitable sectoral model
- A sectoral plan
- A projection of sectoral trends
- The current situation in the sector
- A combination of those approaches

Checklist step 1

At the end of step 1:

- ☑ Sector scope defined in detail, avoiding overlaps with other sectors.
- ☑ Base year and assessment period specified.
- ☑ Preliminary mitigation or adaptation measures identified.
- ☑ Analytical approach selected (model or spreadsheet exercise).

Q&A
Clarifications

Step 1. Establish key parameters of assessment.

Step 2. Compile historical IF, FF and O&M cost data (and subsidy cost data if included explicitly) and other input data for scenarios.

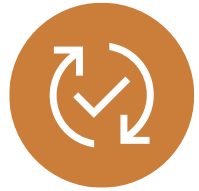
Step 3. Define baseline scenario.

Step 4. Identify annual IF, FF and O&M costs (and subsidy costs if included explicitly) for the baseline scenario.

Step 5. Define target scenario.

Step 6. Identify annual IF, FF and O&M costs (and subsidy costs if included explicitly) for the target scenario.

Step 7. Calculate the changes in IF, FF and O&M costs (and in subsidy costs if included explicitly) needed to implement target scenario.



Step 8. Identify policy implications.

Step 9. Synthesize results and complete the report.

Step 2.

Compile historical IF, FF and O&M cost data, subsidy cost data (if included explicitly), and other input data for scenarios.

- Compile annual investment and financial flows data, disaggregated by investment entity, source, and investment flow versus financial flow.
- Compile annual historical O&M data, disaggregated by investment entity and source.
- Compile other input data for scenarios.

Compile annual IF and FF data

- 3-10 years of historical investment and financial flows data should be collected
- Data should be:
  - Compiled for each investment type
  - Annual
  - Disaggregated by investment entity and source
  - Divided into investment and financial flows
- Reminder: What are the data sources? They determine data compilation!

Tabular form of historical data

Category of Investment Entity	Source of IF and FF	Investment Type 1 (IF, FF, Total)	Investment Type 2 (IF, FF, Total)	Investment Type 3 (IF, FF, Total)	Total Investment
Households	Domestic				
Corporations	Domestic				
	Foreign				
	Total Corporation Funds				
Government	Domestic				
	Foreign				
	Total Government Funds				

Compile annual historical O&M data

Compile annual historical O&M data, disaggregated by investment entity and source:

- Annual O&M costs for the physical assets that are in operation during the historical period
- Collect for 3-10 years
- Information about the expected lifetimes of the assets in operation during the historical period

Compile other input data for scenarios

- Other historical and non-historical data relevant to the sector might be necessary.
- This depends on analytical approach, sectoral scope and whether mitigation or adaptation focus:
  - For a model: e.g. basic socio-economic and technological data
  - For scenario development: information about current, past, and expected future GHG emissions, and expected impacts and vulnerabilities

Checklist step 2

At the end of step 2:

- ☑ Necessary data identified and access located
- ☑ Arrangements for data-sharing made
- ☑ Annual investment and financial flows data compiled (3-10 years),
- ☑ Annual historical O&M data compiled (3-10 years)
- ☑ Other input data for scenarios compiled

Q&A
Clarifications

Step 1. Establish key parameters of assessment.

Step 2. Compile historical IF, FF and O&M cost data (and subsidy cost data if included explicitly) and other input data for scenarios.

Step 3. Define baseline scenario.

Step 4. Identify annual IF, FF and O&M costs (and subsidy costs if included explicitly) for the baseline scenario.

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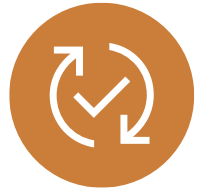

Step 8. Identify policy implications.

Step 9. Synthesize results and complete the report.

Step 3.

Define a baseline scenario.

Describe:

- Socio-economic trends
- Technological change/advances
- Business-as-usual investments
- Define model/spreadsheet to be used for assessment

Characterize baseline scenario

- Characterize the sector/the economy over the assessment period under business-as-usual conditions, in the absence of new policies on climate change, this includes:
  - Expected socio-economic trends;
  - Technological change; and
  - Expected investments in the sector, including the nature, scale and timing of those investments.
- This should be consistent with trends reflected in the historical data collected in the previous step.

Project baseline scenario

- Project the behaviour of the sector in a baseline scenario under **business-as-usual (BAU)** conditions without new policies related to climate change over the assessment period (e.g. until 2050).
- Include current climate change activities based on current policies or trends, which are being implemented.

Checklist step 3

At the end of step 3:

The baseline scenario is developed:

- ☑ Agreed which policies and measures go into it;
- ☑ Socio-economic trends described;
- ☑ Technological change/advances estimated;
- ☑ Business-as-usual investments defined; and
- ☑ Exact model/spreadsheet to be used defined.

Q&A
Clarifications

Step 1. Establish key parameters of assessment.

Step 2. Compile historical IF, FF and O&M cost data (and subsidy cost data if included explicitly) and other input data for scenarios.

Step 3. Define baseline scenario.

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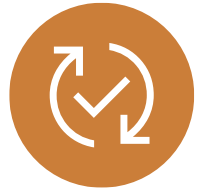

Step 8. Identify policy implications.

Step 9. Synthesize results and complete the report.

Step 4.

Identify the annual IF, FF and O&M costs, and subsidy costs (if included explicitly), for baseline scenario.

- Derive annual investment and financial flows estimates, disaggregated by investment entity and source.
- Derive annual O&M estimates, disaggregated by investment entity and source.

Derive annual IF and FF

Compile annual estimates disaggregated by:

- Investment entity
  - households, corporations, government
- Source
  - domestic or external
- Investment flow
  - facility/technology type 1, type 2…
- Financial flow type
  - practice/measure type 1, type 2…

Derive annual O&M cost

- Annual estimates of O&M costs for the baseline scenario are needed, including:
  - O&M costs for assets purchased **during** the assessment period
  - O&M costs for assets purchased **before** the assessment period and that are expected to still be in operation

Example energy sector: Derive annual IF and FF

Example step 4: Energy sector

Labeling the activities, measures and policies that are considered to go into the baseline scenario (step 3) with their investment and financial flows:

- Sticking to the current energy mix: Label it with expected investment and financial flows for power plants, etc.
- Government to expand the current grid: Label it with expected IF and FF for infrastructure, etc.
- …

Example water sector – year 2025

(in thousand US$)

Investment entity	Source of IF and FF		Investment 1: Construction of dam			Investment 2: Campaign for efficient water use			Total investments		
			IF	FF	O&M	IF	FF	O&M	IF	FF	O&M
Households	Domestic	Equity & debt									
Corporations	Domestic	Own capital									
		Domestic Borrowing									
	Foreign	Debt									
		Foreign loans	1000						1000		
		ODI									
	Total Corporations										
Government	Domestic	Equity & debt (budgetary)					300			300	
	Foreign	Foreign loans									
		ODI									
	Total Government										
TOTAL			1000				300		1000	300	

Checklist step 4

At the end of step 4:

- ☑ Annual investment and financial flows identified for each of the policies and measures of the baseline scenario.
- ☑ Annual O&M costs identified for each of the policies and measures of the baseline scenario.

Q&A
Clarifications

Step 1. Establish key parameters of assessment.

Step 2. Compile historical IF, FF and O&M cost data (and subsidy cost data if included explicitly) and other input data for scenarios.

Step 3. Define baseline scenario.

Step 4. Identify annual IF, FF and O&M costs (and subsidy costs if included explicitly) for the baseline scenario.

Step 5. Define target scenario.

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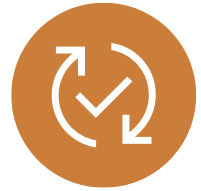

Step 8. Identify policy implications.

Step 9. Synthesize results and complete the report.

Define the target scenario.

Develop target scenario

- The target scenario will include mitigation/adaptation measures based on the target being assessed (e.g. NDC, LT-LEDS…).

Characterize target scenario

Criteria for the target scenario:

- Contains additional measures and policy options
- Is consistent with the baseline scenario regarding background information (e.g., socio-economic trends, etc.)

Project target scenario

Describe the expected development in the sector/economy over the assessment period if new or additional measures for adaptation/ mitigation are implemented according to the national target being assessed.

Checklist step 5

At the end of step 5:

The target scenario is developed:

- ☑ Agreed which policies and measures go into it
- ☑ Socio-economic trends described
- ☑ Technological change/advances
- ☑ Business-as-usual investments defined
- ☑ Exact model/spreadsheet to be used defined

Q&A
Clarifications

Step 1. Establish key parameters of assessment.

Step 2. Compile historical IF, FF and O&M cost data (and subsidy cost data if included explicitly) and other input data for scenarios.

Step 3. Define baseline scenario.

Step 4. Identify annual IF, FF and O&M costs (and subsidy costs if included explicitly) for the baseline scenario.

Step 5. Define target scenario.

Step 6. Identify annual IF, FF and O&M costs (and subsidy costs if included explicitly) for the target scenario.

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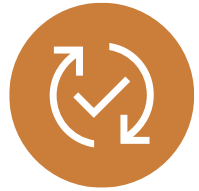


Step 8. Identify policy implications.

Step 9. Synthesize results and complete the report.

Step 6.

Identify annual IF, FF and O&M costs (and subsidy costs if included) for the target scenario.

- Derive annual IF and FF, disaggregated by investment entity and source.
- Derive annual O&M costs, disaggregated by investment entity and source.

Derive annual IF, FF and O&M costs

Compile annual estimates, disaggregated by:

- Investment entity
  - households, corporations, government
- Source
  - domestic equity, foreign debt, domestic subsidies, foreign aid
- Investment flow type
  - facility/technology type 1, type 2…
- Financial flow type
  - practice/measure type 1, type 2…

Use data to the degree disaggregated as available

Derive annual IF, FF and O&M costs

- Derive annual investment and financial flows and O&M costs for the target scenario
- As in the baseline scenario, values should be:
  - In real terms (in constant 2025 US$ or national currency)
  - Discounted
  - Reported in the year in which they are expected to be incurred

Example: Deriving IF, FF and O&M costs

Example step 6: Energy sector

- Labeling the activities, measures and policies that go into the target scenario (step 5) with their investment and financial flows:
  - Changing energy mix to more renewables: Label it with expected costs of power plants, etc.
  - Raising awareness of energy users: Label it with expected costs for awareness campaign.
  - Putting into place incentive system to avoid emissions: Label it with expected costs for implementation, etc.

Example water sector – year 2025

(in thousand US$)

			Measure: Flood management								
			Investment 1 (expansion of existing investment): Construction of larger dam			Programe 1 (new): Education programme on flood risk			Total		
Investment entity	**Source of IF and FF**		**IF**	**FF**	**O&M**	**IF**	**FF**	**O&M**	**IF**	**FF**	**O&M**
Households	Domestic	Equity and debt									
Corporations	Domestic	Own capital									
		Domestic Borrowing									
	Foreign	ODI									
		Foreign borrowing	1000						1000		
		External assistance									
	Total Corporations										
Government	Domestic	Own capital (budgetary)					100			100	
	Foreign	External borrowing									
		External assistance	500						500		
	Total Government										
TOTAL			1500				100		1500	100	

Example water sector – annual flows

Year	(in thousand US$)		
	Measure: Flood management		
	Construction of larger dam (IF)	Education programme on flood risk (new programme) (FF)	O&M of the dam
2025			
2026			
2027			
2028			
2029			
2030	1500	100	
2031	1500	100	
2032	1500	100	
2033		100	100
2034		100	100
2035		100	100
2036		100	100
2037		100	100
2038		100	100
2039		100	100
…		…	…
2050		100	100
Total (accumulated 2025-2050)	4500	2000	1700

Checklist step 6

At the end of step 6:

- ☑ Annual investment and financial flows identified for each of the policies and measures of the target scenario.
- ☑ Annual O&M costs identified for each of the policies and measures of the target scenario.

Q&A
Clarifications

Step 1. Establish key parameters of assessment.

Step 2. Compile historical IF, FF and O&M cost data (and subsidy cost data if included explicitly) and other input data for scenarios.

Step 3. Define baseline scenario.

Step 4. Identify annual IF, FF and O&M costs (and subsidy costs if included explicitly) for the baseline scenario.

Step 5. Define target scenario.

Step 6. Identify annual IF, FF and O&M costs (and subsidy costs if included explicitly) for the target scenario.

Step 7. Calculate the changes in IF, FF and O&M costs (and in subsidy costs if included explicitly) needed to implement target scenario.

Step 8. Identify policy implications.

Step 9. Synthesize results and complete the report.

Step 7.

Calculate the changes in IF, FF and O&M costs (and in subsidy costs if included explicitly) needed to implement target scenario.

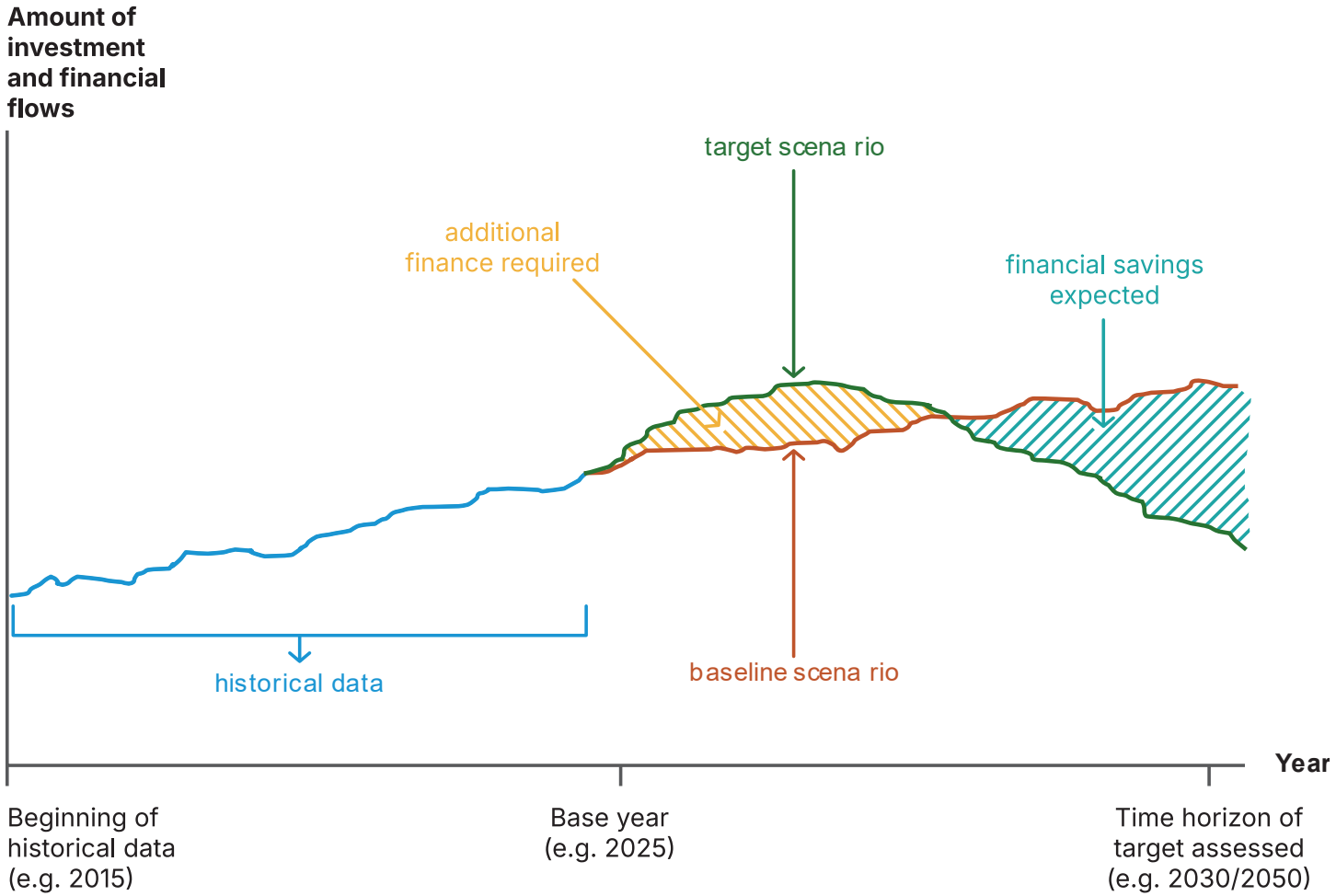
- Calculate changes in ***cumulative*** investment and financial flows and O&M costs to implement target being assessed
- Calculate changes in ***annual*** investment and financial flows and O&M costs to implement target being assessed

Calculate shifts and increases of IF and FF

- Subtract investment and financial flows of the baseline scenario from those of the target scenario to determine:
  - how ***cumulative*** incremental IF and FF would need to change to implement the national target assessed
  - how ***annual*** IF and FF would need to change to implement the national target assessed

Calculate changes

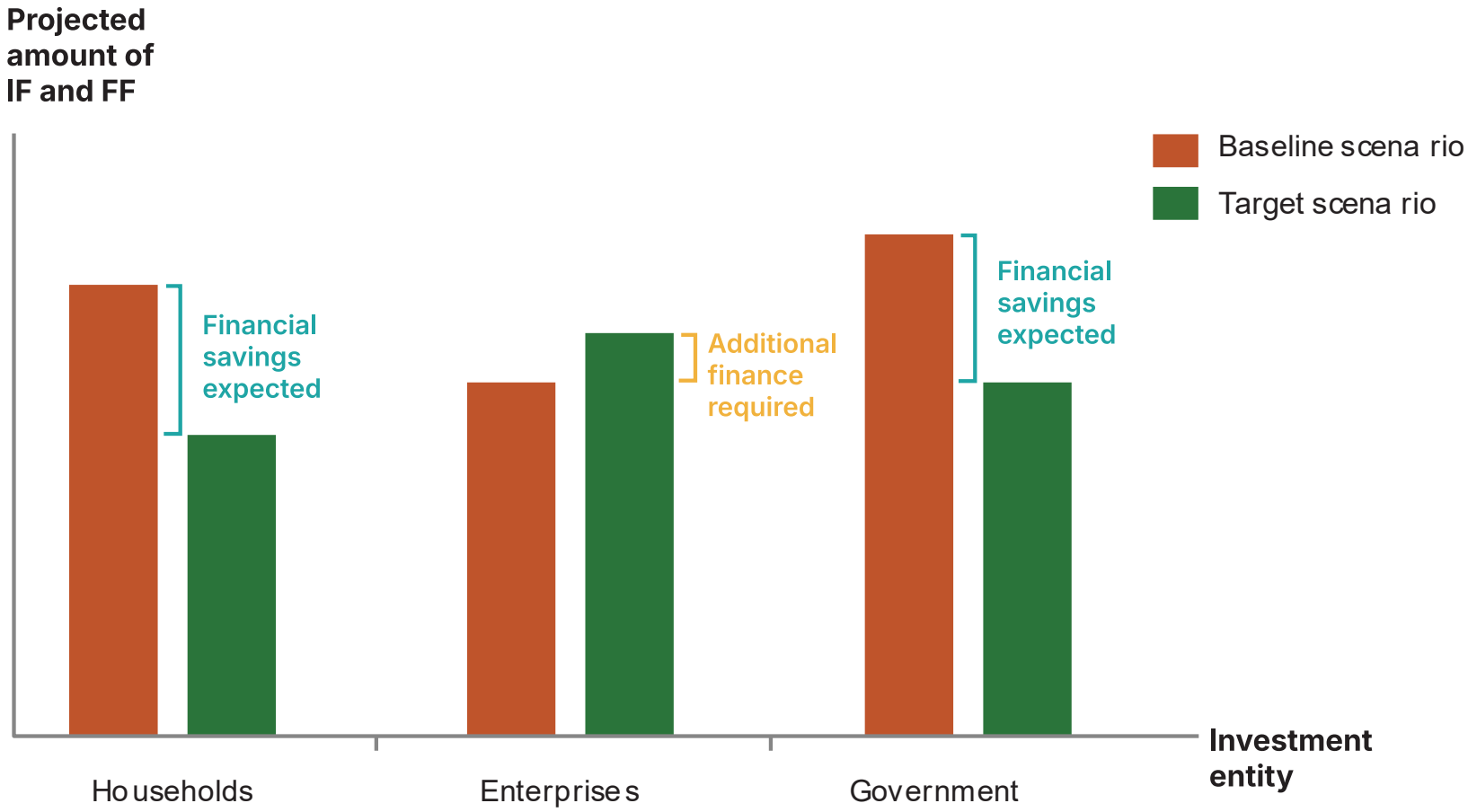
Example how cumulative incremental IF and FF would change (all entities)



Note: The graph is only a fictitious example to illustrate the methodology and does not imply any assumed trend within the sector. Alternative examples could imply more additional investments needed in the future or less saved investments. The trend will vary according to the sector analysed, the national circumstances, etc.

Calculate changes

Example how annual investments would change (by investment entity)



Note: The graph is only a fictitious example to illustrate the methodology and does not imply any assumed trend within the sector. Alternative examples could imply more additional investments needed in the future or less saved investments. The trend will vary according to the sector analysed, the national circumstances, etc.

Checklist step 7

At the end of step 7:

- ☑ Investment and financial flows of the baseline scenario subtracted from target scenario to identify changes needed to implement target assessed.

Q&A
Clarifications

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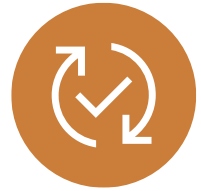

Step 8. Identify policy implications.

Step 9. Synthesize results and complete the report.

Step 8.

Identify policy implications.

- Identify the entities that are responsible for the significant incremental changes in IF and FF.
- Determine the predominant sources of their funds, important to distinguish between public and private sources of finance.
- Determine policy instruments and measures to induce the required changes in IF and FF.

Determine policy options

Analyse results:

- Which years need to see the largest investments?
- Which investment entities and funding sources are responsible for the largest investments?
- Where do shifts of investments need to happen, e.g. from one technology to another, from one industry to another etc.?

Identify policies to implement the national target assessed, to change investment patterns and mobilize additional sources of funds.

Checklist step 8

At the end of the step 8:

- ☑ Entities responsible for incremental changes in investment and financial flows identified
- ☑ Predominant sources of their funds determined
- ☑ Policy instruments determined to induce changes in investment and financial flows

Q&A
Clarifications

Step 1. Establish key parameters of assessment.

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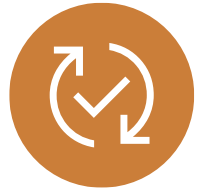


Step 8. Identify policy implications.

Step 9. Synthesize results and complete the report.

Step 9.

Synthesize results and complete report.

- Summarize objectives of assessment, as well as the methodology used
- Systematically capture all information, data, decisions, expert judgement made
- Systematically capture all data going into the scenarios and results
- Complete reporting templates

Synthesize results for different audiences

This step should take place continuously during the assessment and doesn't start at the end of the assessment only

- Summarize objectives of assessment, as well as the methodology used
- Systematically capture all information, data, decisions, expert judgement made for transparency and clarity
- Systematically capture all data going into the scenarios and results
- Complete reporting templates

Sythesize results for different audiences

- Use “Reporting Guidelines for the Assessment of Investment Flows & Financial Flows to Address Climate Change” and excel spreadsheets
- Prepare results for different audiences: Full assessment report, Summary for policymakers, Results flyer
- Use results for follow up activities and consultations

Complete reporting tables

Incremental Cumulative IF and FF for All Investments in All Sectors

Category of Investment Entity	Source of IF and FF		Incremental Cumulative (2025-2050) Total IF and FF (million 2025US$)			
			Energy	Forestry	Forestry	Public Health
Households	Domestic	Equity & debt				
		Government support (subsidies)				
	Total Household Funds (all domestic)					
Corporations	Domestic	Own Capital				
		Domestic borrowing				
	Foreign	ODI				
		Foreign borrowing				
Etc…						

Complete reporting tables

Incremental Annual IF and FF for All Investments in All Sectors

	Incremental Annual Total IF and FF (million 2025 US$)			
Year	Energy	Forestry	Forestry	Public Health
2025				
2026				
2027				
2028				
2029				
2030				
2031				
2032				
Etc…				

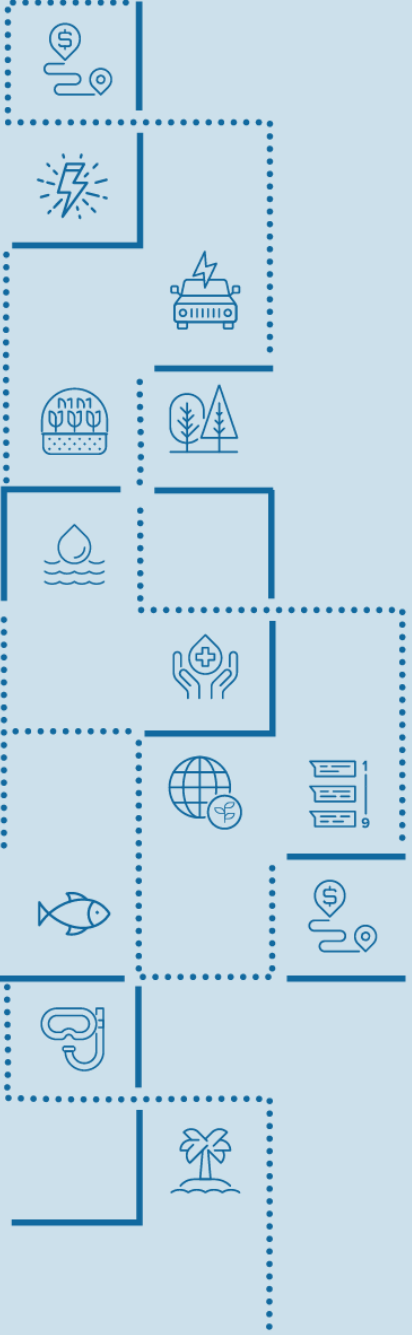
Checklist step 9

At the end of step 9:

- ☑ All financial assessment information is systematically captured for transparency and clarity
- ☑ All financial assessment results are synthesized for different audiences

Q&A
Clarifications

Perspectives and next steps



Going forward

What's next?

- Nurturing links with national policy-making processes
- Attracting interest of international donors
- Make periodic updates to assessments

Analysis of financial assessment results

Key sectors identified for financial assessments

Figure 1: Number of countries selecting sector for a finance assessment for adaptation

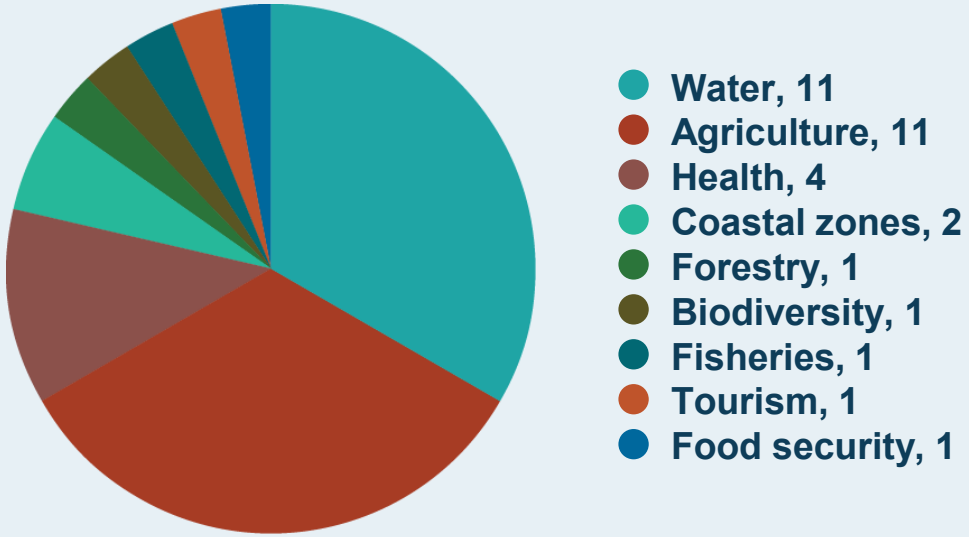
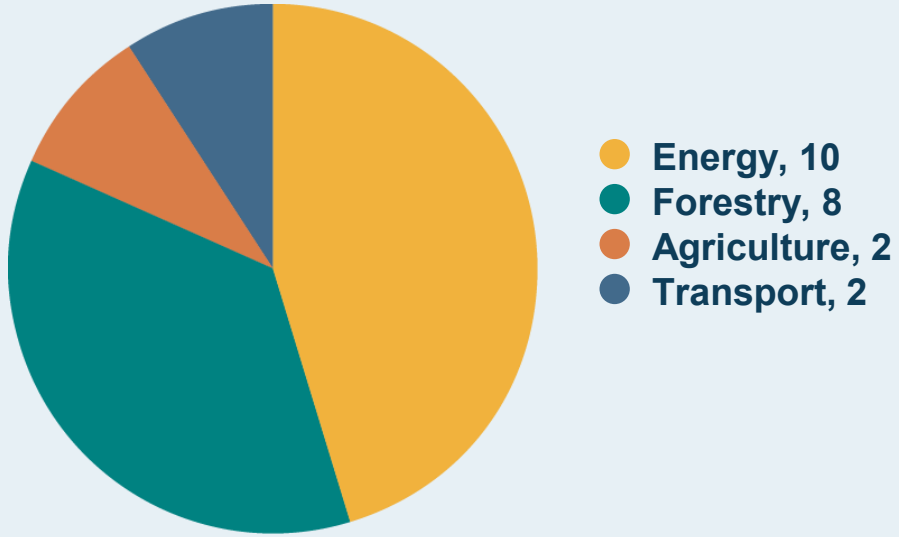
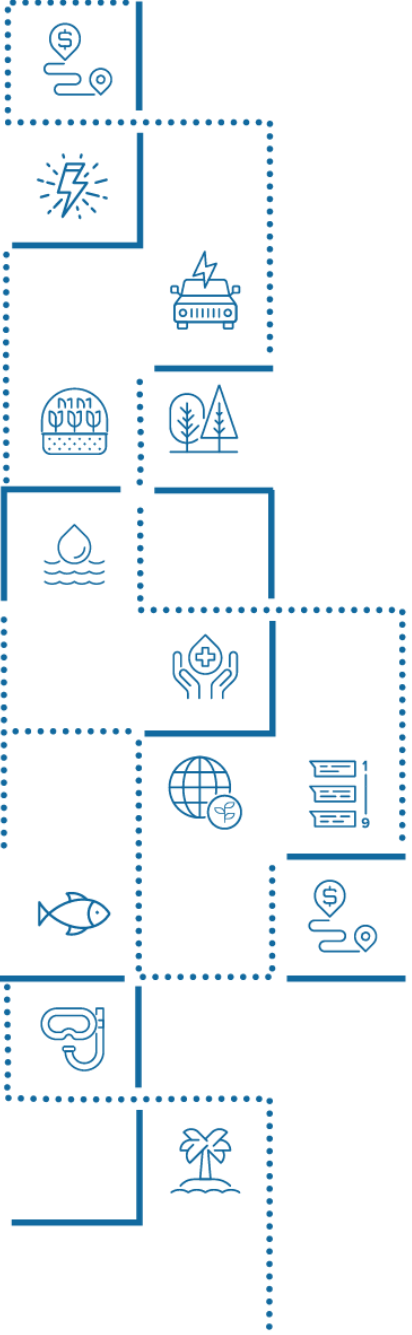


Figure 2: Number of countries selecting sector for a finance assessment for mitigation



How countries used assessment results



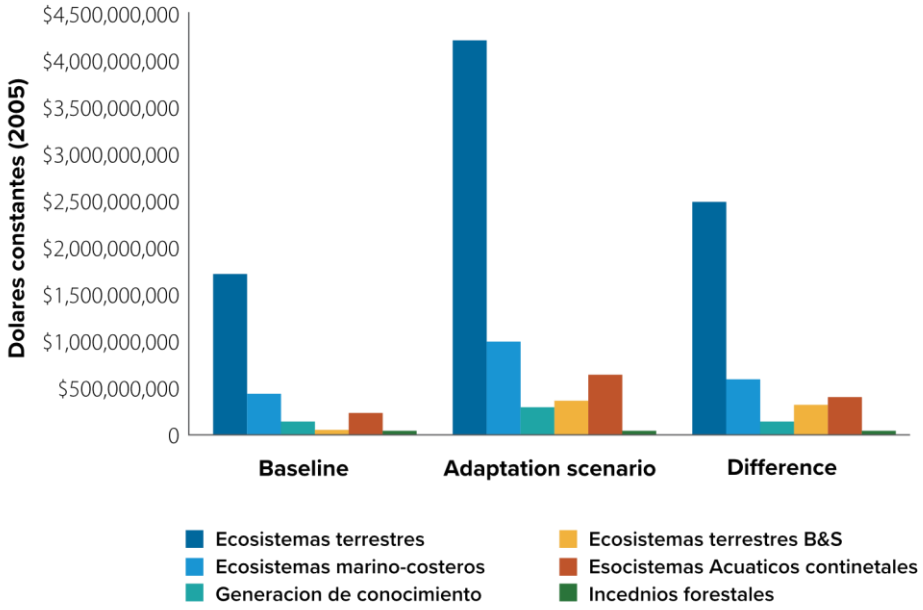
- Developing evidence for climate finance action
- Strengthening national budgets
- Fostering inter-agency collaboration
- Informing policy making
- Making a business case for climate finance
- Using financial assessments as a continued planning tool
- Enhancing participation in international negotiations
- Etc.

Overview: Results by sector

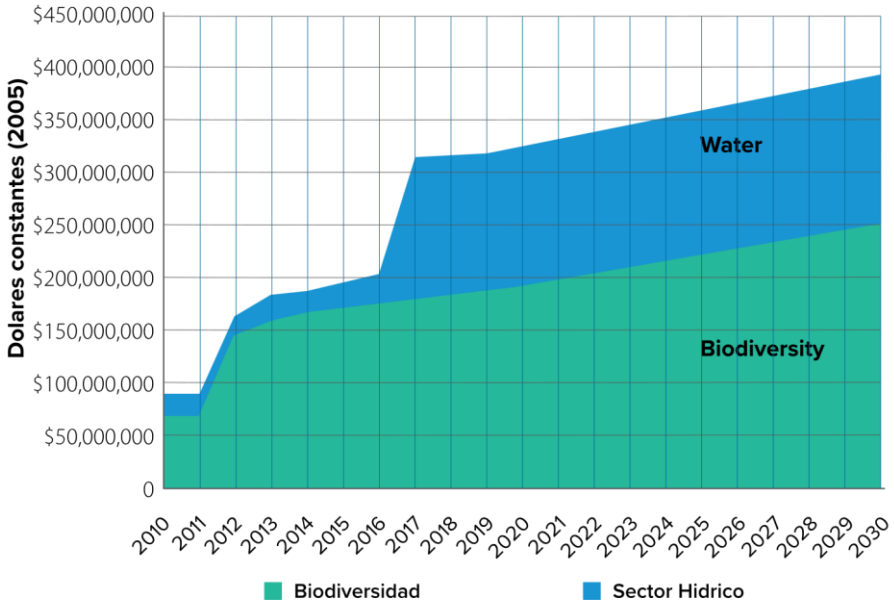
SECTOR*	COUNTRY	MEASURES	ANNUAL INCREMENTAL COST (MILLION US$)
Water (A)	Bangladesh, Costa Rica, Dominican Rep. Gambia, Honduras, Peru, Turkmenistan	Water supply & sanitation, efficient irrigation, erosion & flood control, implementing water law, rainwater harvesting…	-0.1 (a net saving!) (Gambia) – 230 (Bangladesh)
Health (A)	Paraguay	Fighting dengue, malaria, respiratory & diarrheal diseases	7 (Paraguay)
Tourism (A)	Dominican Republic	Beach management, hurricane management by insurance	40 (Dominican Republic)
Biodiversity (A)	Costa Rica	Conservation of ecosystems	60 (Costa Rica)
Fisheries (A)	Peru	Awareness raising, infrastructure for fish production	13 (Peru)

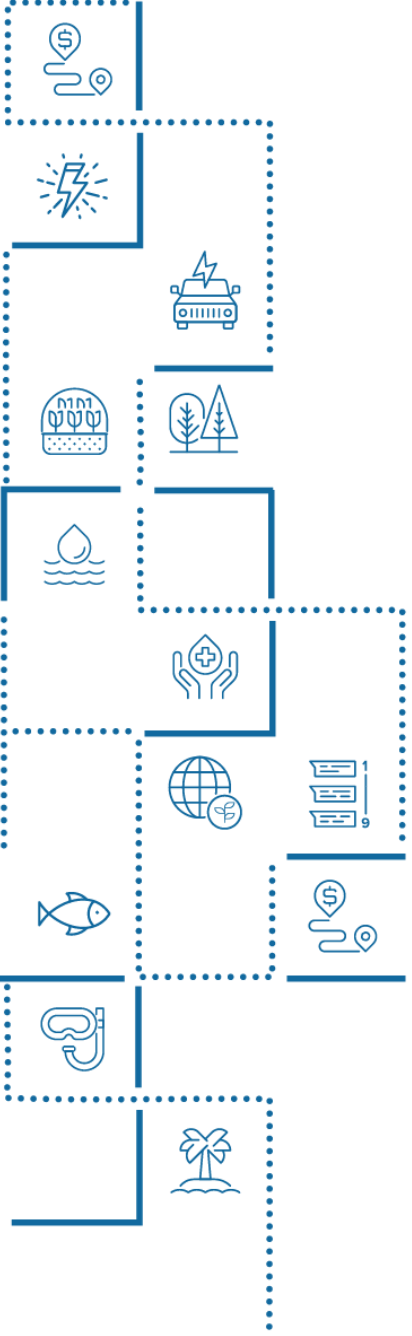
Examples from Costa Rica

Total cumulative sum of investments (2010-2030) in biodiversity sector, by investment type



Annual incremental cost of investments (2010-2030) for biodiversity and water sectors





Examples of impacts on the ground

- **Dominican Republic:** Government maintained the interministerial review committee established for the financial assessments; it is now supporting development of a climate change policy.
- **Turkmenistan:** Environmental standards for energy efficiency and improved water management are being integrated into the legislative framework as result of financial assessment recommendations.
- **Bangladesh:** Financial assessment provided baseline information for climate public expenditure and investment review.
- **Niger:** Financial assessment results were incorporated into National Action Plan for Climate Change and National Development Plan.
- **Togo:** National climate change negotiators and parliamentarians were briefed on the financial assessment results and political implications.
- **Paraguay:** Financial assessment results feeding into National Climate Change Policy and National Mitigation Plan.

Q&A
Clarifications

About UNDP

UNDP is the leading United Nations organization fighting to end the injustice of poverty, inequality, and climate change. Working with our broad network of experts and partners in 170 countries, we help nations to build integrated, lasting solutions for people and planet. Learn more at undp.org or follow at @UNDP.

About UNDP's Climate Promise

UNDP's Climate Promise is the UN system's largest portfolio of support on climate action, working with more than 140 countries and territories and directly benefiting 37 million people. This portfolio implements over US$2.45 billion in grant financing and draws on UNDP's expertise in adaptation, mitigation, carbon markets, climate and forests, climate risk and security, and climate strategies and policy. Visit our website at climatepromise.undp.org and follow us at @UNDPplanet.

About this publication

This methodology is an update to the first financial assessment methodology, which was released in 2009. The objective of this methodology is to support countries to implement their climate targets and to identify, reallocate, mobilize and manage the required financial resources and to create a fiscal framework conducive for climate action.

The update to this methodology was developed under UNDP's Climate Promise by the *Pledge to Impact* Programme. Delivered in collaboration with a wide variety of partners, the initiative has supported over 120 countries to enhance and implement Nationally Determined Contributions (NDCs) under the Paris Agreement. From Pledge to Impact is generously supported by the governments of Germany, Japan, United Kingdom, Sweden, Belgium, Spain, Iceland, the Netherlands, Portugal and other UNDP core contributors. This programme underpins UNDP's contribution to the NDC Partnership.

UN disclaimer

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Federal Ministry for Economic Cooperation and Development

Supported by: Federal Ministry for Economic Affairs and Climate Action on the basis of a decision by the German Bundestag

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