UNITED NATIONS DEVELOPMENT PROGRAMME

GUIDEBOOK

on the methodology for financial assessments to address climate change

CHAPTER I: INTRODUCTION
CHAPTER II: FUNDAMENTAL CONCEPTS AND METHODOLOGICAL STEPS

2026

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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.

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Why this guidebook?

As countries identify their national climate change targets—notably through Nationally Determined Contributions (NDCs) under the Paris Agreement—the need exists to break down targets into concrete steps of action, determine a financial framework to implement actions and achieve targets, and identify policy measures to facilitate the necessary changes that support low-emission development and a low-carbon future.

A key component to support this transformation is through assessing national investment flows and financial flows to address climate change. Many countries have used this method to articulate an effective and appropriate national response to climate change.

This Guidebook responds to the needs of countries to have a clear approach to support the implementation of national climate targets in the context of sustainable development that duly accounts for their national circumstances, capacities and resources.

Between 2008 and 2024, 60 investment flow and financial flow assessments were conducted worldwide, with more than 1,000 national stakeholders engaged in the technical and political aspects of the assessments. Since the adoption of the Paris Agreement and the development of NDCs, the methodology has helped countries utilize financial assessments to develop a pathway to NDC implementation.

While this methodology was first developed in 2008, an update has taken place in 2025. This Guidebook is a living document, which will continue to be improved based upon the experiences of those using it. Over the years, the methodology to carry out financial assessments to address climate change has been continually reviewed and updated regarding its user friendliness, feasibility of implementation and sectoral scope. Comments are invited. Please send feedback to Susanne Olbrisch (susanne.olbrisch@undp.org).

For more information, visit https://climatepromise.undp.org/tags/investment-and-financial-flows-assessments.

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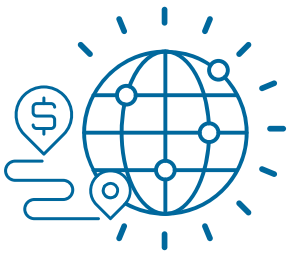
List of acronyms and abbreviations

A/R	Afforestation/reforestation
AFOLU	Agriculture, Forestry and Other Land Uses
BAU	Business-as-usual
BS	Baseline scenario
CBD	Convention on Biological Diversity
CDM	Clean Development Mechanism
CH_4	Methane
CHP	Combined heat and power
CO_2	Carbon dioxide
FDI	Foreign direct investment
FF	Financial Flow
GCF	Green Climate Fund
GDP	Gross domestic product
GEF	Global Environment Facility
GHG	Greenhouse gas
GLOFs	Glacier lake outburst floods
IEA	International Energy Agency
IF	Investment Flow
IMF	International Monetary Fund
INFF	Integrated National Financing Frameworks
IPCC	Intergovernmental Panel on Climate Change
ISIC	International Standard Industrial Classification
LPG	Liquid petroleum gas
LT-LEDS	Long-term Low-emission Development Strategy
LULUCF	Land Use, Land-Use Change and Forestry
N_2O	Nitrous oxide
NAP	National Adaptation Plan
NDC	Nationally Determined Contribution
NGO	Non-governmental organization
O&M	Operation and maintenance
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
PV	Photo-voltaic
QA/QC	Quality Assurance/Quality Control
REDD	Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
SNA	System of National Accounts
SO_2	Sulfur dioxide
TNA	Technology Needs Assessment
UN FAO	United Nations Food and Agriculture Organization
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
V&A	Vulnerability and adaptation
WBCSD	World Business Council on Sustainable Development
WHO	World Health Organization



Introduction

The world is experiencing the increasing effects of climate change on all spheres of life. The urgency to reduce greenhouse gas emissions (GHG) and adapt to climate change impacts is being recognized by nations across the globe.

More and more governments are taking concrete steps to address climate change through the development of national targets and plans, most notably through their Nationally Determined Contributions (NDCs) under the Paris Agreement.

When countries set out to implement their NDCs and other targets and plans to tackle climate change, key questions arise, such as:

- How to implement and finance their climate targets?
- How to make the best use of existing national finances?
- How to identify requirements for additional funding?
- What policies can mobilize funding and incentivize the required investments?

To support countries with these efforts, the United Nations Development Programme (UNDP) has developed an approach to conduct a financial assessment to address climate change, as described in this Guidebook. The approach helps countries identify how to best allocate national public and private finance and how to determine the shifts and increases of finance needed to achieve national targets.

This Guidebook presents a general methodology for conducting financial assessments, defines terminology, explains technical concepts that underpin an assessment and describes in detail the steps of a finance assessment. It aims to help countries set up the policies and incentives needed to direct investments toward a low-emission, climate-resilient future. The approach is flexible; it can be tailored to and build upon existing national processes and institutions, contributing to a context of sustainable development. The approach also takes into account further national concerns, such as biodiversity conservation and land degradation.

The approach was first developed in 2009 through collective efforts and collaboration and was peer reviewed in two global meetings. International and national experts from developing countries that undertook financial assessments in collaboration with UNDP worked with regional centres of excellence (whom provided technical backstopping to the first countries to conduct these financial assessments) to apply the approach in different national contexts. The Guidebook has been updated in 2025.

The Guidebook provides a systematic and flexible approach to assess investment and financial flows to address climate change in the context of development objectives. It can be modified to meet specific needs, such as moving from planning to implementation, or monitoring and managing implementation progress. This Guidebook provides guidance to countries to carry out a financial assessment, identifying and quantifying potential investments and financial flows associated with mitigation and adaptation measures as part of a country's climate change target as manifested in its NDC and key national policies and strategies.

More specifically, this Guidebook provides step-by-step guidance on assessing changes in investments in physical assets (Investment Flows) and in programmatic measures (Financial Flows) needed to mitigate GHG emissions and adapt to climate change.[1] Investments range in type and scale from household investments in appliances, to corporate and government investments in infrastructure, to government investments in education and outreach. Sources of funding include both domestic and foreign funds and private and public funds.

The approach is designed to be operationalized at the country level and, as noted earlier, is flexible so that it can be adapted to country-specific needs and conditions. The results of the financial assessments can be used by countries for financial decision-making and policy development regarding investment shifts and additional capital needed to address climate change.

Based on experiences from countries worldwide, carrying out such a financial assessment has a range of benefits. A core benefit is to allocate existing national public and private financing effectively, identifying shifts and increases in investments in physical assets and in programmes to achieve national targets while also helping to determine the entities responsible for those investments, the sources of their investment funds, and for setting policies and incentives to induce investments accordingly. Beyond that, financial assessments can strengthen national capacity, foster inter-institutional collaboration, inform policymaking and can provide economic evidence for climate action, making a business case for action.

The basic idea is that financial assessments support a country to implement nationally determined targets on climate change, typically from their NDCs or key national policies and strategies. The assessments can be carried out to focus on specific sectors or they can be economy-wide. It is recommended to start with two to four key national sectors.

This Guidebook sets out the general methodology for conducting a financial assessment. Since the concrete steps to apply the methodology will look quite different depending on the topic or sector under assessment, a set of additional modules is available detailing how the application of the methodology can look in a given sector. These should be used together with the general methodology found in Chapter 2. For example, if the assessment focuses on the energy sector, the general methodology should be used alongside the energy sector module.

Some sectors tend to be associated more with either mitigation or adaptation options, while other sectors may have both mitigation and adaptation options, such as forestry and agriculture. The list on page 3 of the thematic modules available indicates whether there is a greater focus on mitigation or adaptation options.

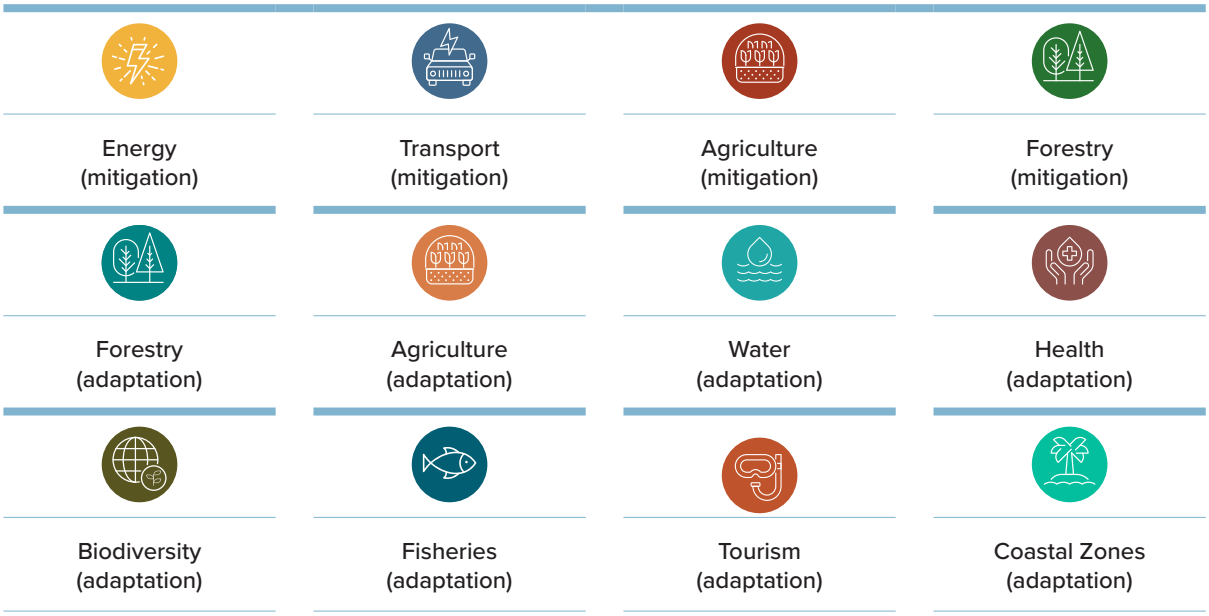
[1] Following the UNFCCC (2007) global assessment, 'Investment and Financial Flows to address Climate Change' UNDP had been invited to develop guidance for the *national* level to assess Investment and Financial Flows to address climate change.

UNDP's approach for countries to assess their investment flows and financial flows to address climate change consists of a number of elements:

- UNDP guidance, titled **Preparing a Workplan for Financial Assessments to Address Climate Change,** helps countries to organize the financial assessment in terms of roles and responsibilities, timelines and budget.

- This **Guidebook on the Methodology for Financial Assessments to Address Climate Change:** this sets out the general methodology, defining terminology and technical concepts that underpin the assessment, and describes in detail the steps of the assessment.

- **Thematic modules:** present guidance on applying the financial assessment methodology to different sectors with examples from each respective sector. Available sector modules include:



- **UNDP Reporting Guidelines Excel** worksheets for gathering data, scenario development and calculations which can be used unless a national data system or modelling is used.

- **Outlook and follow-up Chapter** describes how countries can use assessment results further in the context of national policymaking processes. In particular, the Chapter discusses how policies can influence investment and financial flows to address climate change, it describes types of policy instruments and measures and how to select among them within different contexts and it discusses international sources of finance for addressing climate change.

- UNDP **Reporting Guidelines for Financial Assessments to Address Climate Change** capture assessment results for different audiences.

Additional guidance available includes:

- training material on the methodology guidebook and the thematic modules;
- a training test run for the financial assessments;
- guidance on converting national currency into constant US$;
- sample ToRs for hiring experts to support the financial assessment;
- completed financial assessments, summaries for policy makers and 4-page results flyers:
- country case studies: and
- lessons learned document.

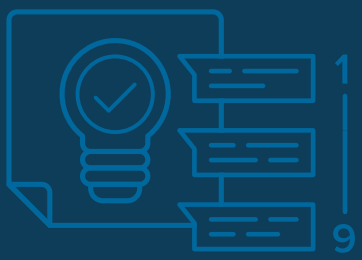
All material is available at https://climatepromise.undp.org/tags/investment-and-financial-flows-assessments.

Carrying out a financial assessment involves both technical aspects (e.g., data gathering and processing, establishing and analysing scenarios) and policy aspects (e.g., decisions on targets to be assessed, political oversight throughout the assessment and ownership, follow-up on results). Therefore, it is important to engage both technical experts and policymakers in the assessment.

Because a financial assessment takes place in a national landscape of established policy processes and institutions, it is important to ensure that the assessment is embedded in and builds naturally on national structures. The multidisciplinary nature of the assessment will require the participation of different national entities and can therefore also contribute to strengthening inter-agency collaboration.

Addressing financial requirements for climate action needs to take place in the context of a country's overall development priorities. Therefore, the financial assessments need to link to and build onto related processes on Sustainable Development Goal (SDG) finance (such as Development Finance Assessments – DFAs) and biodiversity finance (National Biodiversity Strategies and Action Plans – NBSAPs).

II.



Fundamental concepts and methodological steps for assessing investments and financial flows

Investment decisions today have important long-term implications. Facilities, equipment and infrastructure affect climate for the duration of their operating lives, which in many cases may be more than 20 years. In addition, investment in a facility or infrastructure project that proves to be maladapted to future climate requirements may result in additional socio-economic costs and suboptimal operation or inefficiency of the stock of capital.

2.1 Fundamental concepts

This section describes the fundamental concepts and terminology that underlie the methodology for financial assessments to address climate change. Some of the concepts and terms presented here are derived from the 2007 UNFCCC report, Investment and Financial Flows to Address Climate Change, a global report that kicked-off efforts to develop an approach for national level financial assessments to help implement climate action.

2.1.1 Methodology overview

Conceptually, the methodology used here is straightforward. Once the scope of a sector is clearly defined, the relevant investment costs for that sector are projected for two future scenarios: 1) a baseline scenario, which reflects a continuation of current policies and plans, i.e., a future in which no new measures are taken to address climate change (also referred to as a business-as-usual scenario); and 2) a target scenario, in which new and/or scaled-up mitigation measures and/or adaptation measures are taken.

The investment flows and financial flows of the baseline scenario are then compared to those of the target scenario to determine the changes and increases in investments that would be needed to reach the targets being assessed. Note that changes in investments may include not only increases in investments (new funding) but also shifts in existing investments (reallocation of existing and currently projected funding levels such that funds in one area decrease and funds in another area increase).

2.1.2 Monetary flows covered by the methodology

This methodology distinguishes between different monetary flows: investment flows, financial flows and operation and maintenance costs.

Investment flow = capital cost of a new physical asset with a life of more than a year.

Financial flow = all expenditures for transactions other than physical assets, often for programmatic measures.

An **'investment flow' (IF)** is the capital cost of a new physical asset with a life of more than one year, such as the capital cost of a new power plant, a new automobile, a new household appliance or a new agricultural irrigation system. Investment flows are limited to new physical assets because such investments have climate change implications for the duration of the operating lives of the facilities and equipment purchased. Purchase of an existing physical asset, such as an existing vehicle, is excluded because its remaining life and its implications for climate change are not affected by the change in ownership. However, investment flows to retrofit, or considerably expand, an existing physical asset such that the climate change implications of that asset are significantly altered, such as conversion of a traditional coal-fired power plant to a combined cycle gas turbine plant, would be included.

Note that an investment flow captures just the initial cost of a new asset. The costs of operating and maintaining new assets (e.g., salaries of personnel, fuel costs) are covered in a separate category of monetary flows, which are the costs associated with operation and maintenance (O&M).

A **'financial flow' (FF)** includes all expenditures for transactions other than physical assets, often for programmatic measures. Examples of financial flows include expenditures for an agricultural extension programme for farmers, a malaria prevention programme to distribute mosquito nets, implementation of improved forest management techniques, awareness raising campaigns against food waste and labelling programmes for energy efficient household appliances.

Examples of several mitigation and adaptation investment types, and the IF and FF for each, are provided in Table 2.1. Note that some investment types can entail both investment flows and financial flows.

Table 2.1: Examples of mitigation and adaptation investment types and associated IF, FF and O&M

Sector (type of climate change measure)	Investment type	Investment flows*	Financial flows	O&M cost**
Energy (mitigation)	Construction of a new high efficiency, fossil-fuel fired power plant	Capital costs of construction		Energy to run the power plant, staff salaries
	Expansion of public transit system (bus)	Capital costs of new buses and related equipment and construction of new facilities (e.g., bus stops)		Bus fuel, driver salaries
	Implementation of an equipment retrofit and education programme for the commercial sector on energy end-use efficiency improvements	Capital costs of equipment retrofits or replacements in the commercial sector (e.g., retrofit of HVAC systems)	Programme implementation costs, including both government costs and commercial sector costs (e.g., audit of HVAC systems to determine leaks)	Equipment maintenance, technician salaries
Forestry (mitigation)	Implementation of reduced impact logging operations	Capital costs of new equipment needed to implement reduced impact logging techniques		Damage of uninsured loss of equipment
	Implementation of improved, low-tech silviculture techniques to increase stand-level biomass densities in managed forests		Implementation costs and training	Raw materials (e.g. seedlings, soil amendments)
Agriculture (mitigation)	Implementation of improved livestock feeding programme		Implementation costs and training	Raw materials (e.g., animal feed)

Table 2.1: Examples of mitigation and adaptation investment types and associated IF, FF and O&M *(continued)*

Sector (type of climate change measure)	Investment type	Investment flows*	Financial flows	O&M cost**
Water (adaptation) 	Construction of new desalinization plant	Capital costs of construction		Technical maintenance
	Implementation of programme to repair leakages from urban water distribution systems		Implementation costs	Technical inspection and repair costs
Public health (adaptation) 	Construction of new health clinics to treat infectious disease	Capital costs of construction		Public utilities, personnel salaries, supplies and consumables
	Implementation of programme to distribute insecticide-treated mosquito nets		Programme implementation costs, training	Raw materials (e.g., nets), fuel and leasing of vehicles for transport
Coastal zones (adaptation) 	Production of improved flood hazard maps and implementation of improved flood warning system		Map production and programme implementation costs	Office supplies and consumables

Notes:
* The assets associated with these investment flows will have O&M costs over their lifetimes.
** IF, FF and O&M for the historical period will be based on empirical data; IF, FF and O&M for the future (baseline and target) scenarios will need to be projected.

2.1.3 Operation and maintenance costs

Experience shows that sometimes conventional investment choices (e.g., technologies used in the baseline) may have low upfront costs but incur high costs in the long run. By contrast, sustainable investment choices may have higher upfront costs but incur less costs in the long run. One useful aspect of the methodology is that it separates out O&M costs from investment flows and financial flows. This allows detection of trade-offs between different investment choices and their financial implications over the assessed period, which is needed by governments for decision-making.

The physical assets purchased with investment flows will have O&M costs associated with them (i.e., ongoing fixed and variable costs, such as salaries and raw materials). O&M costs of new assets need to be included in the financial assessments because these costs can vary considerably among investment flow types and can have a significant effect on the total cost of an investment over its lifetime. For example, O&M costs are a much greater share of total costs (capital costs plus O&M costs) for gas-fired electricity generation than photovoltaic electricity generation.

O&M can include the below categories of costs:

- salaries or wages of personnel
- fuel costs, such as power and/or fuel for operations, fuel for production
- public utilities, such as telephone service, internet connectivity, etc.
- raw materials
- maintenance and/or leasing of equipment
- office supplies and consumables
- advertising
- license or equivalent fees (such as yearly registration fees for corporations) imposed by a government
- real estate expenses (including rent or lease payments, office space, furniture and equipment, property taxes and equivalent assessments)
- operations fees, such as fees assessed on transportation carriers for use of highways and production or operation fees (for instance, subsidence fees imposed on oil wells)
- insurance
- damage due to uninsured losses, accident, sabotage, negligence or terrorism

This list is not meant to imply that countries need to identify O&M costs for every category of cost. Countries should identify O&M costs for those categories that are significant, which will vary by asset types and may identify O&M costs in the aggregate (e.g., as a percentage of total costs). Step 2 in Section 2.2 provides approaches for determining O&M costs should data not be readily available.

O&M costs should be assigned to the investment entity that invested in the physical asset, i.e., that owns the asset. Sources of the funds for O&M, which would primarily be in the form of operating revenues, should be disaggregated into the same sources as are used for investment flows and financial flows (Table 2.2). Note that some of these sources (e.g., foreign direct investment or FDI) may not be relevant to O&M costs. Note also that the O&M costs that are recorded for a household or corporation investment flows should be net of any government subsidies.

2.1.4 Investment entities and sources of the investment flows and financial flows

An ‘investment entity’ is an entity that is responsible for an investment. These are the entities that decide to invest in, for example, an array of wind turbines, a new household appliance, a public health programme, a national park or a sand dune stabilization programme. This methodology considers three types of investment entities: households,[2] corporations and government. These are described below.

The ‘sources of investment flows and financial flows’ are the origins of the funds invested by the investment entities, e.g., domestic equity, foreign debt, domestic subsidies or foreign aid. These are described below for each investment entity.

Identification of the entities responsible for the investment decisions and the sources of the funds that are invested is an important component of a financial assessment because this information is the starting point for the identification of policies to change those decisions. To design meaningful policies to direct investment flows and financial flows towards climate action, the entities responsible for those decisions and the sources of their funds must be identified.

[2] Note that in the System of National Accounts (the internationally agreed standard for compiling measures of economic activity), a household is not considered an investment entity unless it produces goods for sale or for its own final consumption (e.g., a farm).

Government policies to incentivize investment decisions by households and corporations may include a wide spectrum from hard to soft policies (explained further in Step 8). For example, households might be convinced to purchase high water efficiency appliances rather than less costly but lower-efficiency appliances if part of the additional cost was borne by the government via subsidies such as rebates on qualifying purchases. In cases in which public spending is needed to implement a mitigation or adaptation measure, the financial assessments can help make a business case for action by identifying the (often considerable) costs of non-action, which put the cost of action into perspective.

Government investments may be made climate compatible by budgeting approaches (such as mainstreaming climate considerations into budgeting processes or Climate Budget Tagging) to ensure government expenditures are in line with national climate targets.

Note that mitigation and adaptation measures that are programmatic (i.e., outreach and education programmes) and/or involve subsidies (e.g., tax credits, tax deductions, rebates) or cost sharing agreements are likely to involve more than one investment entity. With such measures, one investment entity, which typically is a government entity, is responsible for the costs of the programme. The other investment entity (or entities) are responsible for the investment decisions that are being influenced by the programme. For example, the water efficiency subsidy programme mentioned in the previous paragraph involves both a government entity, which invests in the programme, and households, which invest in high efficiency appliances.

Table 2.2 presents the 'taxonomy' of investment entities and sources of investment flows and financial flows for compiling financial data, as used in this methodology. This taxonomy, and the definitions provided below, are derived from the investment flow taxonomy used in the UNFCCC report noted earlier. The taxonomy used here has been designed to support countries to create a reasonable level of data granularity, while allowing for flexibility in the level of detail reported should data (especially on sources of funds) not be available.

Table 2.2: Taxonomy of investment entities and sources of investment flows and financial flows

Investment entity	Source of investment flows and financial flows	
Households	**Domestic**	Equity and debt
Corporations	**Domestic**	Domestic equity (including internal cash flow)
		Domestic borrowing (bonds and loans)
	Foreign	Foreign direct investment (FDI)
		Foreign borrowing (loans)
		Foreign aid (ODA)
Government	**Domestic**	Domestic funds (budgetary)
	Foreign	Foreign borrowing (bonds and loans)
		Bilateral foreign aid (bilateral ODA)
		Multilateral foreign aid (multilateral ODA)

2.1.5 Scenarios

A scenario is an internally consistent and plausible characterization of future conditions over a specified period. Each financial assessment requires that both a baseline scenario and a target scenario (including mitigation and adaptation measures) are developed. In this financial assessment methodology, each scenario will have associated with it a stream of annual IF, FF and O&M costs. This is described further in Section 2.2.

A baseline scenario captures business-as-usual conditions, i.e., it describes what is likely to occur in the absence of new policies to address climate change. The baseline scenario should describe expected socio-economic trends (e.g., population growth, migration, economic growth), technological change (if relevant), private sector and government plans for the sector and expected business-as-usual investments in the sector (i.e., specific new assets and programmes) given those trends and plans. If policies to address climate change are already being implemented, they should be reflected in the baseline scenario. The description of the plans or projections for investments should include information about the nature, scale and timing of those investments, i.e., information needed to derive annual IF, FF and associated O&M costs.

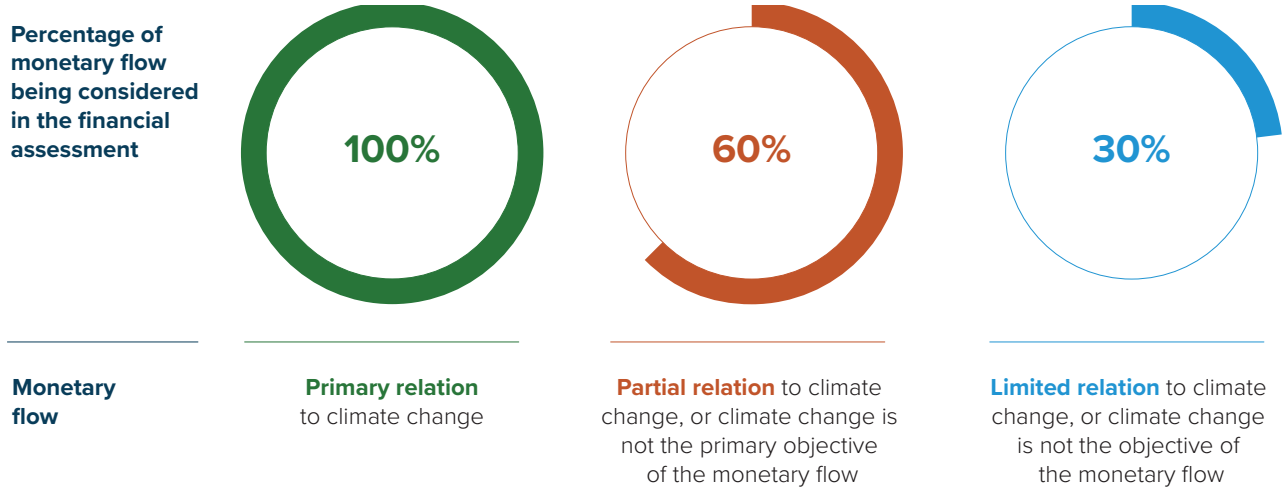
The target scenario captures policies and plans where additional or scaled up mitigation or adaptation measures be taken to address climate change. The targets considered here embody the objective of the financial assessment, i.e., if the assessment is carried out to identify a pathway to implement a country's NDC, then the targets considered in the target scenario will be drawn from the NDC. This includes either all targets or those for specific sectors of interest. In other cases, a financial assessment may be based on a country's Long-Term Low-Emission Development Strategy (LT-LEDS) or another key national planning document.

The target scenario incorporates additional or scaled up mitigation and adaptation measures. The target scenario should describe expected socio-economic trends, technological change (if relevant), new measures to mitigate GHG emissions, new measures to respond to the impacts of climate change and the expected investments required given the implementation of these measures. The target scenario should include information about the nature, scale and timing of the investments.

There may be sectors in which measures that reduce GHG emissions and/or increase resilience to climatic variability are already being taken but are being implemented for reasons other than to address climate change. For example, a local government may be implementing water conservation measures for residential and commercial entities because of recent drought conditions. Such existing measures to address climate change should be included in the baseline scenario because these measures reflect business-as-usual conditions and because the costs of implementing such measures may be reflected in the IF and FF for the base year (depending upon which year is used as the base year and the start date for implementation of such measures). Such measures may or may not be likewise included in the target scenarios, depending on the nature and scale of the mitigation and adaptation measures assessed. For example, if drought conditions are expected to intensify and increase in frequency with climate change, the target scenario for this example might include an expanded and more stringent water conservation programme that would require a greater level of expenditure for implementation. In this case, the target scenario would include the conservation measure that is in the baseline scenario, but at a modified scale.

Countries may be considering an array of measures and monetary flows that may be related to mitigating or adapting to climate change but may only partly or not primarily be executed for climate change objectives. In this case countries may want to decide to consider only a percentage of the monetary flow depending on its relevance and relation to climate change objectives (Figure 2.1).

Figure 2.1: Examples of percentages of monetary flows considered toward climate change



2.1.6 Base year and assessment period

The base year is the first year of the assessment period, i.e., it is the first year of the baseline and the target scenarios. The base year should be set to the most recent year for which IF, FF and O&M information is available. This way the IF, FF and O&M costs for the first year of all the scenarios provided the same historical data. The historical data to be compiled should cover three to ten years prior to the base year. The base year that is chosen should not vary among different sectors in an assessment.

The assessment period is the time horizon for assessment, i.e., the number of years spanned by the baseline and target scenarios and the associated stream of annual IF, FF and O&M costs. The assessment period for the financial assessment should match the time horizon of the target document that is being assessed. For example, many NDCs have a time horizon until 2030, many LT-LEDS have a time horizon until 2050, and the associated financial assessment should cover the same time frame.

It should be kept in mind that the assessment period should not be too short, as most significant physical assets with GHG implications have lifetimes of 20 to 30 years and many forestry mitigation measures require at least 20 to 30 years for the full effects to be realized. Thus, the full positive and negative effects of investment choices can be seen when assessing a time span of related length. When different sectors are being assessed, a single assessment period for all sectors is preferred.

2.1.7 Cost accounting issues

It is important that countries follow a common approach for compiling data on the costs of IF, FF and O&M so that results are transparent and comparable. Costs should be compiled in real (i.e., inflation adjusted) terms. Constant values of national currency or constant values of US$ are recommended for the base year, e.g. constant 2025 values. If the base year is a different year, the inflation adjustment should also be done towards the base year. Also, investment costs for assets (IF) should be reported in the year in which they are expected to be incurred, rather than spreading the costs over the lifetime of the asset. FF and O&M costs should be reported as annual costs in the year in which they occur.

Appropriate discounting of future costs (IF, FF and O&M costs for the baseline and target scenarios) should be done to properly account for varying opportunity costs and time preferences of investment entities. This is particularly important given the long timeframe of the financial assessments. The discount rates chosen should reflect country-specific economic conditions. It is recommended that countries use two discount rates for their assessment: one public discount rate and one private discount rate. The public discount rate should be the rate established by the national government's ministry (or department) of finance or economic development for public projects and should be used for sectors dominated by public investments. The private rate should reflect the opportunity cost of capital for the predominant investment entity in the assessment and should be used for sectors dominated by private investments. Alternatively, countries may use the public discount rate for all sectors.

The methodology for financial assessments does not consider explicitly the contribution of government subsidies in financing private sector (household and corporation) investments (IF and FF) and O&M costs because computing or filtering out subsidies for private investments is not always possible. If there are subsidies or government support, the prices actually paid by the entity will normally differ by the amount of the subsidy from the full price. However, if either the full price or the subsidy amount is not available or known, it will not be possible to filter out the subsidy amount in the sources of funding. Therefore, countries should report the effective final costs (i.e., the net cost without subsidies) of IF, FF and O&M as paid by private sector entities. If subsidies are significant for a sector and the costs of the subsidies are available or known, countries may include the costs of subsidies (as a government cost). However, if a country chooses to include subsidies, they should include subsidies in all three categories of costs (IF, FF and O&M costs).

2.1.8 Benefits and non-investment costs of mitigation and adaptation measures

The purpose of a financial assessment is to determine the incremental, direct monetary requirements of climate change measures, the necessary shifts and increases of finance and associated financial reforms and the likely sources of finance to reach climate targets.

Quantitative estimates of the direct benefits of investments may be included if known. Direct benefits of climate change measures include net GHG reductions and climate impacts avoided. If a climate change measure includes a new physical asset that produces goods or services that are sold (e.g., electricity), direct benefits will also include operating revenues that accrue from sales, which can significantly offset the costs of an investment.

The nature and scale of GHG and impacts benefits, and the size and sources of significant sales revenues will be an important consideration when evaluating alternative investments. Therefore, countries should assess qualitatively the GHG reduction and adaptation benefits of climate change measures; and for those investments that will accrue significant revenues, countries should also assess the relative magnitude of revenues that will accrue over the lifetime of the asset (relative to lifetime O&M costs) and the likely sources of the revenues.

In addition to direct (intentional) benefits, climate change measures may have other social, economic and environmental effects. These additional effects are often referred to as co-benefits. Co-benefits may occur in the same and/or a different sector, may occur within and/or beyond national boundaries and may be positive (a benefit) or negative (a cost). For example, construction of a new hydropower facility instead of a new fossil fuel-fired power plant may, in addition to reducing GHG emissions, improve local air quality, but the hydropower facility may have negative environmental and economic impacts on riparian ecosystems and human settlements. A measure to replace coal-fired cooking stoves with solar ones may have benefits in terms of human health. Co-benefits can be important when weighing alternative investments, so it is recommended that countries assess qualitatively the significant social, economic and environmental co-benefits of climate change measures in the financial assessment.

Note also that some co-benefits may affect the costs of other climate change measures. For example, measures to reduce forest degradation are likely to result in forest areas that are more resilient to climatic change than they would have been if forest degradation had continued unabated and may also make coastal ecosystems (e.g., mangroves and coral reefs) more resilient through reductions in terrestrial erosion and coastal turbidity. In this example, the mitigation measure (reduced forest degradation) reduces the costs of adaptation in the forestry and coastal sectors. The existence of such cross-measure co-benefits means that inadvertent under- or over-counting of IF and FF across measures and across sectors is possible. Countries should be vigilant in checking for this possibility. Assessing such cross-measure effects will help ensure that under- or over-counting does not occur.

The assessment should consider returns or value generated through climate action. Values generated through climate action are usually environmental, social and socio-economic factors (health, well-being, quality of life, decent work, etc.). Since monetizing them can be contentious, it is recommended to refer to them rather in qualitative terms than quantitative terms. Also, monetary returns of climate action (e.g., avoiding the damage caused by natural disasters) tend to be hard to quantify. As far as they can be quantified by approximation it is encouraged to consider returns, otherwise returns should be referenced qualitatively.

2.2 Methodological steps for financial assessments

This section briefly describes the steps in the methodology for national financial assessments to address climate change. Each sectoral assessment entails nine sequential steps. Once sectoral assessments are complete, the results are compiled and compared across sectors.

Nine steps are undertaken for each sectoral financial assessment to address climate change (Figure 2.2).

Step 1. Establish key parameters of the 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.

Figure 2.2

Steps in the financial assessments to address climate change

Step 1.

Establish key parameters of the assessment.

- Define detailed scope of the assessment.
- Specify base year and assessment period.
- Identify target document to be assessed (e.g. NDC, Long-Term Low-Emission Development Strategy, National Climate Change Strategy) and mitigation (or adaptation) measures.
- Select analytical approach.

Step 2.

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

- Compile historical annual IF, FF and O&M cost data, disaggregated by investment entity and source (key data for the sector in general and for the specific measures being assessed).
- Compile historical annual subsidy cost data, if subsidies are included explicitly in the assessment.
- Compile other input data for scenarios (e.g. socio-economic information).

Step 3.

Define baseline scenario.

- Describe socio-economic trends, technological change, sectoral and national plans, and expected investments given current information and sectoral/national plans.

Step 4.

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

- Identify annual IF, FF and O&M cost for each investment type, disaggregated by investment entity and funding source.
- Identify annual subsidy costs for each relevant investment type and for IF, FF, and O&M costs, if subsidies are included explicitly in the assessment.

Step 5.

Define target scenario

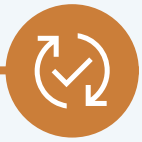
- Describe socio-economic trends, technological change, mitigation or adaptation measures, and investments given implementation of targets being assessed (NDC, Long-Term Low-Emission Development Strategy, National Climate Change Strategy).

Step 6.

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

- Identify annual IF, FF and O&M cost for each investment type, disaggregated by investment entity and funding source.
- Identify annual subsidy costs for each relevant investment type and for IF, FF, and O&M costs, if subsidies are included explicitly in the assessment.

Step 7.



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

- Calculate changes in cumulative IF, FF, and O&M costs, by funding source, for individual investment types and for all investment types.
- Calculate changes in annual IF, FF, and O&M costs for individual investment types, for individual sources of funds, and for all investment types and funding sources.
- If subsidies are included explicitly, consider calculating changes in cumulative and/or in annual subsidies for IF, FF, and O&M for each investment type and all investment types.

Step 8.

Identify policy implications.

- Identify policy measures to encourage changes in I&FF.

Step 9.

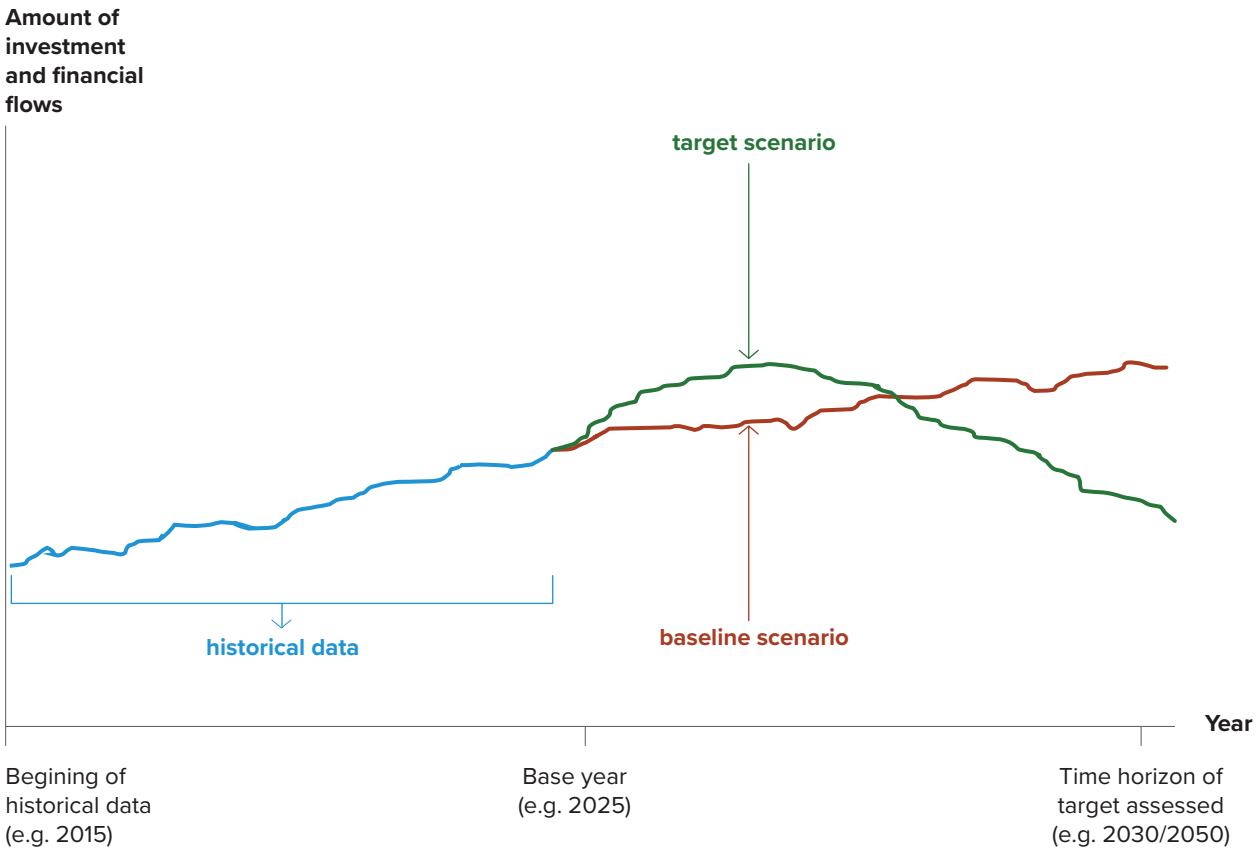
Synthesize results and complete report.

- Synthesize results and capture decisions taken during assessment using UNDP Reporting Guidelines.

The financial assessments involve both a technical process and a political process. The methodology for financial assessments in this guidance covers the technical process, including all methodological steps, data gathering and processing, calculations, etc. This needs to be accompanied by a political process, ensuring buy-in, high-level oversight and follow-up on the results on the part of the government. This needs to be ensured through continuous engagement with relevant key line ministries, inter-ministerial consultations and multi-stakeholder dialogues that include institutions, civil society, international partners, donors and others.

Figure 2.3 below represents the key aspects of the finance assessments, including historical data, baseline scenario and target scenario. The x-axis depicts years and the y-axis depicts the amount of IF and FF. While this is an illustrative example the graph shows a typical development: The baseline scenario shows that IF and FF may continue to rise due to the continuing impacts of climate change. The target scenario shows that higher investments may be needed in the beginning to implement the assessed targets and embark on the economic transformation, and this will often yield savings in the long run compared to the baseline scenario.

Figure 2.3: Graphic representation of historical data, baseline scenario and target scenario



Note: The graph is only a fictitious example to illustrate the methodology and does not imply expected developments. Alternative examples could take into account additional investments in the future or investments saved. Trends will vary depending on the country and targets assessed, national circumstances, etc.

Step 1.

Establish key parameters of the assessment.

Define detailed scope of the sector.

At the beginning the objective of the assessment needs to be identified. Since this methodology is designed to support countries to implement their nationally determined climate targets, countries will first need to decide which target(s) should be assessed. Such targets would typically be the NDC, LT-LEDS or national climate change strategy. While financial assessments can be done economy-wide, due to the complexity countries typically start by assessing several key sectors.

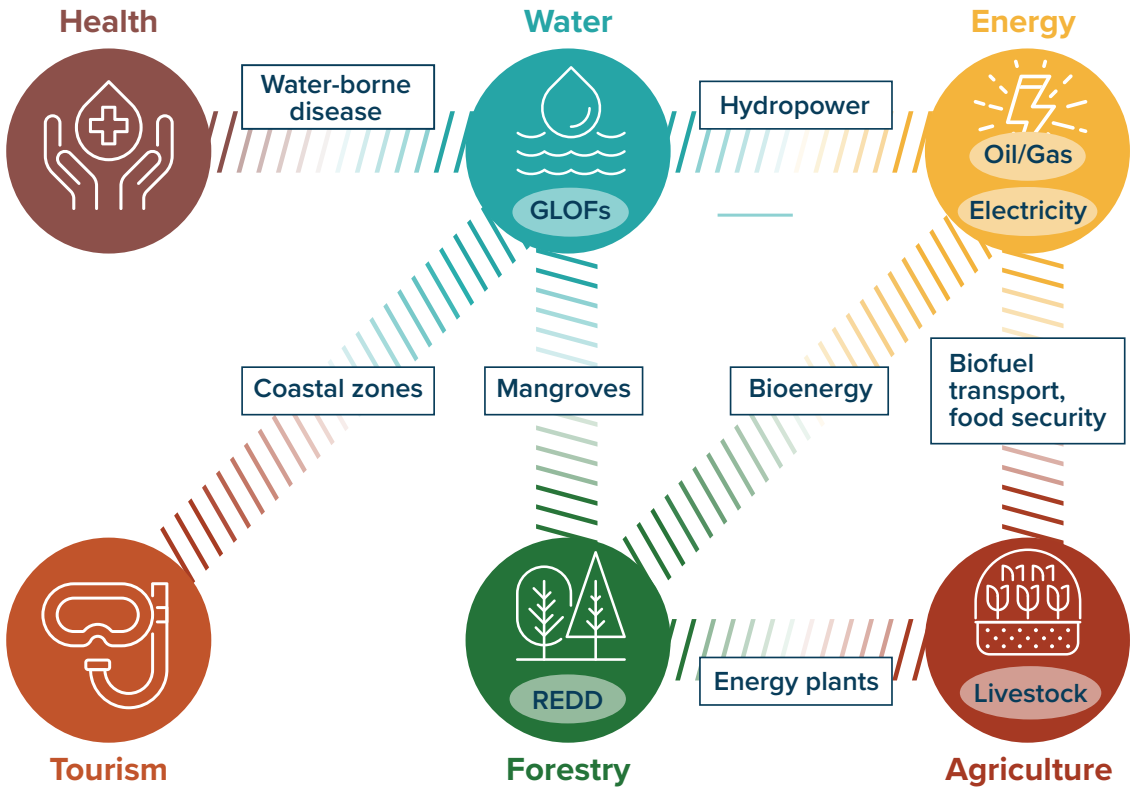
The next activity in Step 1 is to determine the scope of each sector (see also the companion volume **Preparing a Workplan for the Investment & Financial Flows Assessment**). This primarily entails determining the specific subsectors that will be included (e.g., in the energy sector an assessment might consider coal mining and power production, in the agricultural sector an assessment might consider irrigated crop production and livestock production). It also needs to be decided which steps along the production chain should be included in the assessment. For instance, for the agriculture sector it needs to be determined whether the assessment will only consider growing and harvesting agricultural goods or whether it will also include sowing seeds or seed production, and at the end of the production chain it needs to be determined whether the assessment will include transport and further processing of agricultural goods. In other words, the sectoral boundaries of study need to be clearly delineated. These boundaries determine which processes, activities, entities and geographic regions (if less than the entire country) are included in the sector.

Many existing sectoral structures could be utilized to define the sectoral scope. For example, the Intergovernmental Panel on Climate Change (IPCC)'s GHG inventory sectoral structure can be a useful reference for financial assessments.[3] However, rather than relying on existing sectoral structures, it is most important that the sectoral scope be appropriate to: 1) national circumstances, especially regarding data availability; 2) the structure of the national government entities in which data reside; and 3) the scope of related documents that have already been developed (e.g., NDC, LT-LEDS, Biennial Transparency Report (BTR), National Communication, Technology Needs Assessment (TNA), National Adaptation Plan (NAP)).

Sectors may overlap within a national financial assessment since many processes and activities can cover more than one sector (Figure 2.4). Sectoral scopes may need to be defined to avoid overlaps among sectors, and among mitigation and adaptation measures, and their associated IF and FF because monetary flows should not be double counted.

[3] Table 8.2 in Chapter 8: Reporting Guidance and Tables of Volume I of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (Eggleston, *et al.*, eds.) provides a detailed outline of the GHG inventory structure.

Figure 2.4: Potential overlaps across sectors



Note: GLOFs = Glacier lake outburst floods; REDD = Reducing Emissions from Deforestation and Forest Degradation.

For example, if a country carries out a financial assessment to address climate change in both the agriculture and the water management sectors and agricultural demand for water is a significant component of national water demand, then agricultural water consumption is likely to be included in both sectoral scopes. If the country decides to assess efficiency improvements in agricultural water used as an adaptation measure, the IF and FF for that measure should be included in either the agriculture sector analysis or the water management sector analysis, but not both.

Specify base year and assessment period.

The base year and assessment period need to be selected for the assessment. The base year should be the most recent year for which information is available. The assessment period should match the time horizon of the target that is being assessed, for NDCs this is often 2030 or 2035, for LT-LEDS it is often 2050.

Identify the target to be assessed and mitigation and/or adaptation measures.

The selected target (NDC, LT-LEDS, national climate change strategy, etc.) typically contains multiple goals. Often it is also overarching and visionary in nature, so it must be broken down into concrete measures that can be costed and assessed.

Select analytical approach.

Countries can use various analytical approaches to develop baseline and target scenarios and associated streams of annual IF, FF and O&M costs. These include a suitable sectoral model, a sectoral plan, a projection of sectoral trends, the current situation in the sector or a combination of those approaches. The selection should build upon previous analytical work on mitigation and adaptation or processes of green/sustainable budgeting efforts. The projection chosen could be a national scenario from the NDC, LT-LEDS, National Communications or other relevant document and should describe anticipated changes in the sector over the selected assessment period in sufficient detail. In any case a projection should be based on an extrapolation of historical data plus additional anticipated trends.

In case modelling is being used, a sectoral model covering most or all of the sectoral scope of the assessment should be able to forecast changes in the sector over the selected assessment period. It should be grounded in historical data (see Step 2), capable of incorporating the identified adaptation or mitigation measures, capable of projecting streams of annual IF and FF by entity and source and be based on forecasts of demand for sectoral products and/or services.

Ideally, the model would also project annual O&M costs, but if not, these costs can be derived as described in Steps 4 and 6. A model of the entire national economy could be used instead of a sectoral model, as long as the selected sector is represented in the national economic model in sufficient detail.

Step 2.

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

Compile historical annual IF and FF data, disaggregated by investment entity and source.

Historical IF and FF data are needed to provide an informational basis from which to develop possible future scenarios. The historical data will give assessment teams an understanding of recent investment patterns and a context for public and private plans for the sector, which can be used to inform the development of scenarios and associated costs. In addition, historical IF and FF data are needed for the first year of the scenarios (the base year). At a minimum, countries should collect at least three years of historical data (i.e., for the base year and two years during the previous decade). Ideally, countries would collect ten years of historical IF and FF data, i.e., for the base year and the previous nine years.

Data should be compiled for each investment type and should be annual, disaggregated by investment entity and, if possible, by funding source. It should be divided into IF and FF. This breakdown is required because it is the basis for identifying future investments over time, given public and private plans for the sector, assumptions about the future economic climate for foreign investment, privatization policies, economic barrier removal efforts and a host of other relevant factors. The definitions of investment types, especially how narrow they are, will depend on sectoral scope and the level of detail of the analytical approach.

Table 2.3 provides a template that illustrates this disaggregation of annual IF and FF data, assuming three investment types (e.g., a wind turbine, a photovoltaic system and an energy efficiency campaign). Note that this template provides for three different levels of disaggregation of the entities/sources of these IF and FF; the most aggregated level is the investment entity (households, corporations, government), a more disaggregated level is the distinction among domestic and foreign sources and the most disaggregated level identifies more specific sources of funds. If a country cannot obtain IF and FF data at the most disaggregated source level, the data may be able to be derived based on expert judgement. For example, if corporate investments in a particular investment type are typically funded with a certain percentage of domestic equity and a certain percentage of domestic debt, averages of those percentages could be used to allocate each of the total IF and FF for the investment to the two sources.

Alternately, a country may need to aggregate sources (e.g., aggregate corporate domestic equity and corporate domestic debt, and report in either row depending on which source is likely to be the dominant source for corporate investments in the particular investment type). And if detailed source information is not available, a country can compile data by domestic versus foreign sources within each investment entity. However, countries should make every effort to compile IF and FF data at the most disaggregated source level.

The data that need to be collected may reside in one or more of several locations (e.g., national accounts, ministry records and plans, industry records, statistical agencies, utilities). IF and FF data may also be available from research organizations and academic institutions, including parastatal research organizations, private research institutions and universities. It is recommended that country teams take a bottom-up approach to data collection and start their data collection process with records and plans of appropriate ministries, agencies or industries where cost information is likely to be more specialized and detailed than in national accounts, which tend to be highly aggregated to conform to international norms. Arrangements for interagency sharing of data should have already been made as part of the preparation phase (see the companion UNDP document, **Preparing a workplan for financial assessments to address climate change**).

In some cases, information that is not readily available from a bottom-up data source may be extractable from a top-down assessment (e.g., national accounts). For example, ministry plans may have detailed budgetary information for new equipment that was planned for implementation in the current year without any breakdown into the investment entities and sources of the funds for the equipment.

The national accounts data, on the other hand, may have an indication of the breakdown of investments by entities and sources to meet the ministry's budget. However, it is highly unlikely that this information will be at the level of the sectoral scope being considered. Hence, certain judicious assumptions (i.e., assumptions based on expert judgment) will need to be made in applying this breakdown in entity and source to the specific sectoral scope of the assessment. Assumptions such as these will be necessary and inevitable throughout the assessment process and should be carefully documented in the assessment report to ensure transparency as well as permanent documentation. Whatever data sources are used, careful attention must be paid to sectoral boundaries because sectors may be defined differently in different data sets.

Data or information constraints may be managed in various ways, including these below.

- **Methodological:** If data gaps are small, statistical methods including interpolation or regression may be used to close data gaps, e.g. data gaps in a time series.
- **Thematic:** If few data are available for one whole area of the sector, the scope of the sector may be adjusted to focus on areas for which information exists.
- **Organizational:** If data exist but are not accessible then memorandums of understanding (MoUs) may be established with agencies holding the information (e.g. bureaus of statistics) to ensure data sharing.
- **Research:** To retrieve certain data, it may be considered to conduct surveys or liaise with research entities to derive data, such as through household surveys.

Table 2.3: Template for one year of historical investment flows and financial flows data

			Year 20*XX*										
			Investment type 1			Investment type 2			Investment type 3			Total IF and FF	
Category of investment entity		**Source of IF and FF funds**	**IF** (2025 US$)	**FF** (2025 US$)	**Total IF and FF** (2025 US$)	**IF** (2025 US$)	**FF** (2025 US$)	**Total IF and FF** (2025 US$)	**IF** (2025 US$)	**FF** (2025 US$)	**Total IF and FF** (2025 US$)	**Total IF** (2025 US$)	**Total FF** (2025 US$)
Households	**Domestic**	Equity and debt											
	Total household funds (all domestic)												
Corporations	**Domestic**	Domestic equity (including internal cash flow)											
		Domestic borrowing (bonds and loans)											
		Total domestic sources											
	Foreign	Foreign direct investment (FDI)											
		Foreign borrowing (loans)											
		Foreign aid (ODA)											
		Total foreign sources											
	Total corporation funds												
Government	**Domestic**	Domestic funds (budgetary)											
	Foreign	Foreign borrowing (loans)											
		Bilateral foreign aid (bilateral ODA)											
		Multilateral foreign aid (multilateral ODA)											
		Total foreign sources											
	Total government funds												

Note: The actual data set would include additional columns for additional investment types in 20*XX*, as well as for the additional years in the historical time series. Some investment types will have more than one category of investment entity. Also, household and corporation IF and FF should be net of subsidies. If subsidy costs are included explicitly in the assessment, the domestic funds source for government IF and FF should include subsidy costs. The currency would be US$ or the national currency.

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

Historical O&M data are also needed to provide an informational basis from which to project future O&M costs for new physical assets, as well as to provide data for the first year of the scenarios. Annual O&M costs for the physical assets in operation during the historical period should be collected. In other words, annual O&M costs for assets purchased during the historical period and for assets purchased prior to the historical period but that are still in operation should be collected.

The number of years for which historical O&M cost data are compiled should be the same as is done for historical IF and FF data (i.e., for three to ten years). The O&M costs of the assets that are expected to still be in operation after the historical period (i.e., during some part, or all, of the assessment period) will be needed in Step 4 (and possibly in Step 6), so information about the expected lifetimes of the assets in operation during the historical period and annual fluctuations in O&M costs (if any), also need to be collected.

Historical annual O&M data should be compiled for each investment type, should be disaggregated by investment entity and, if possible, also by funding source. The O&M data for assets purchased during the historical period should be tracked separately from the O&M data for assets purchased before the historical period so that the total costs of assets (IF + O&M) purchased during the historical period can be identified. Table 2.4 provides an example of O&M cost data for an asset purchased in 2023 disaggregated for three years. Similar tables would be completed for the O&M costs of assets purchased before the historical period, but without the IF data (because, in that case, the investment took place before the historical period considered).

The O&M data that need to be collected may reside in one or more of the locations for IF and FF data (e.g., national accounts, ministry records and plans, industry records, statistical agencies, utilities, research institutions). If such data are not available, countries can utilize one of the below approaches to derive estimates:

- Adopt O&M cost data from similar assets in other countries and adjust the O&M data to in-country production and consumption rates.
- Derive estimates from proportional relationships between O&M costs and total costs or between O&M costs and capital costs (e.g., 10 percent, 25 percent or 75 percent). Use either standard assumptions about proportional relationships or proportional relationships observed in other countries.

Table 2.4: Template for three years of historical O&M cost data for an investment flow in 2023

Category of investment entity	Investment type 1: 2023 investment flow and associated annual O&M costs						
	2023 investment flow			Associated annual O&M during historical period			
	Source of IF		IF (2025 US$)	Source of O&M		2023 O&M (2025 US$)	2024 O&M (2025 US$)	2025 O&M (2025 US$)
Households	**Domestic**	Equity and debt		**Domestic**	Equity and debt			
	Total household IF (all domestic)			**Total household O&M (all domestic)**				
Corporations	**Domestic**	Domestic equity (including internal cash flow)		**Domestic**	Domestic equity (including internal cash flow)			
		Domestic borrowing (bonds and loans)			Domestic borrowing (bonds and loans)			
		Total domestic sources			Total domestic sources			
	Foreign	Foreign direct investment (FDI)		**Foreign**	Foreign direct investment (FDI)			
		Foreign borrowing (loans)			Foreign borrowing (loans)			
		Foreign aid (ODA)			Foreign aid (ODA)			
		Total foreign sources			Total foreign sources			
	Total corporation IF			**Total corporation O&M**				
Government	**Domestic**	Domestic funds (budgetary)		**Domestic**	Domestic funds (budgetary)			
	Foreign	Foreign borrowing (loans)		**Foreign**	Foreign borrowing (loans)			
		Bilateral foreign aid (bilateral ODA)			Bilateral foreign aid (bilateral ODA)			
		Multilateral foreign aid (multilateral ODA)			Multilateral foreign aid (multilateral ODA)			
		Total foreign sources			Total foreign sources			
	Total government IF			**Total government O&M**				
Total annual O&M (2025 US$)								

Note: Household and corporation O&M should be net of subsidies. If subsidy costs are included explicitly in the assessment, the domestic funds source for government O&M should include subsidy costs.

Compile historical annual subsidy cost data, if subsidies are included explicitly in the assessment.

The explicit inclusion of subsidy costs in the financial assessment is optional because filtering out subsidy costs from other costs may not always be possible. However, if a country chooses to include subsidies explicitly, they should include them for all three categories of costs (IF, FF and O&M) in the historical data set. Historical subsidy data will be helpful when projecting future subsidy costs.

If subsidies are included explicitly, annual costs of subsidies for each type of investment during the historical period should be collected. Subsidies should be compiled separately for IF, FF and O&M. The number of years for which historical subsidy cost data are compiled should be the same as is done for historical IF, FF and O&M data (i.e., for three to ten years). Table 2.5 illustrates the disaggregation of three years of historical subsidy cost data for IF, FF and O&M.

Information on subsidies may be available from relevant government ministries or agencies, statistical agencies, research organizations, academic institutions and private sector entities.

Table 2.5: Template for three years of historical subsidy cost data

Investment type	2022				2023				2024			
	IF subsidy (2025 US$)	FF subsidy (2025 US$)	O&M subsidy (2025 US$)	Total subsidy (2025 US$)	IF subsidy (2025 US$)	FF subsidy (2025 US$)	O&M subsidy (2025 US$)	Total subsidy (2025 US$)	IF subsidy (2025 US$)	FF subsidy (2025 US$)	O&M subsidy (2025 US$)	Total subsidy (2025 US$)
Investment type 1												
Investment type 2												
Investment type 3												
...												

Note: This table would be completed with government subsidy cost data if the costs of subsidies are included explicitly in the assessment. There may be subsidies that encompass more than one of the three types of costs (IF, FF and O&M), but that are not separable, in which case only the total subsidy columns would be completed.

Compile other input data for scenarios.

In addition to historical IF, FF and O&M cost data, the characterization of the scenarios and identification of annual costs for the scenarios will require the collection of other historical and non-historical data relevant to the sector. Basic socio-economic information and technological data to be considered includes, e.g., population and economic growth projections, demand forecasts for products and services and technology development trends. Also, development of appropriate target scenarios will require information about current, past and expected future GHG emissions and expected future impacts and sectoral vulnerabilities.

As with IF and FF data, information may be available from relevant government ministries or agencies, statistical agencies, research organizations and academic institutions.

Step 3.

Define baseline scenario.

This step entails characterizing the sector over the assessment period, assuming business-as-usual conditions. It is a description of what is likely to occur in the sector in the absence of new policies to address climate change and given current sectoral and national plans.

The baseline scenario should describe expected socio-economic trends, technological changes, public and private sectoral plans, relevant national plans and expected investments (i.e., physical assets and programmes) in the sector, including the nature, scale and timing of those investments. The baseline scenario should be consistent with trends reflected in the historical data collected in the previous step, unless sectoral or national plans dictate otherwise.

If a model is being used for the analysis, it can be used to develop and define the baseline scenario. Otherwise, a sectoral plan, a projection of trends or the current situation (assuming no change), or some combination, can be used as the basis of the projection. A sectoral development plan may have been developed by the relevant ministry or government agency or if sectoral investments are dominated by private sector entities, investment plans may be available from those entities.

In cases in which countries are already taking actions to address climate change, these measures should be reflected in the baseline scenario. This is important given the desired outcome of the assessment to identify the additional resources needed to address climate change, i.e., above and beyond resources already invested in mitigation and adaptation.

Step 4.

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

Identify annual IF and FF for each investment type, disaggregated by investment entity and funding source.

In this step, annual IF and FF for the baseline scenario are identified. As discussed above, costs should be in real terms (i.e., inflation adjusted), in constant 2025 US$ or national currency, should be reported in the year in which they are expected to be incurred and should be discounted using appropriate public and private discount rates. The annual IF and FF values for each investment type should be disaggregated by investment entity and funding source and divided into IF and FF.

The output of this step will be a stream of annual investment flows and/or financial flows for each investment type for the entire assessment period, by investment entity and funding source. These data should be organized as in Table 2.6, i.e., there would be a set of data for each year compiled in the format of Table 2.6.

The source of these data or method of identification will depend on the analytical approach, the sectoral scope and the types of investment entities that are relevant. The IF and FF values may be the output from a sectoral model and/or might be obtained from a planning document or from several documents and/or might be derived from the historical data. If a model is not used, information may be available from the investment entities and/or relevant government ministries or statistical agencies and/or research institutions.

Identify annual O&M costs for each IF, disaggregated by investment entity and funding source.

Annual values of O&M costs for the baseline scenario are also needed. These must include the O&M costs for assets purchased during the assessment period and the O&M costs for assets purchased before the assessment period and that are expected to still be in operation. As discussed above, costs should be in real terms (i.e., inflation adjusted), ideally in constant 2025 US$ or national currency, should be reported in the year in which they are expected to be incurred and should be discounted using appropriate public and private discount rates.

The annual O&M values for each investment type should be disaggregated by investment entity and funding source (as in Table 2.4) and be divided into O&M for assets purchased during the assessment period and for assets purchased prior to the assessment period. For those assets purchased during the assessment period that are expected to still be in operation after the last year of the assessment period, annual O&M costs for each additional year the assets will be in operation should be identified, up to an additional five years after the last year of the assessment period. This will enable more accurate information of total costs for new assets to be made.

The output of this step will be a stream of annual O&M costs for each investment type that includes a new asset purchased during the assessment period and streams of annual O&M costs for assets purchased prior to the assessment period, disaggregated by investment entity and funding source.

As with IF and FF data, O&M costs may be from the output from a sectoral model and/or might be obtained from a planning document or from several documents and/or might be derived from the historical data. If a model is not used, information may be available from the investment entities, and/or relevant government ministries or statistical agencies and/or research institutions.

Identify annual subsidy costs for each investment type and for IF, FF and O&M costs, if subsidies are included explicitly in the assessment.

If a country chooses to include subsidies explicitly in their assessment, annual subsidy costs for the baseline scenario need to be identified. Subsidies should be identified for each relevant investment type and for all categories of cost (IF, FF and O&M) (as in Table 2.5). Costs should be in real terms (i.e., inflation adjusted), in constant 2025 US$ or national currency, reported in the year in which they are expected to be incurred and discounted using appropriate public and private discount rates.

Subsidy information may come from the output from a sectoral model, be obtained from a planning document or from several documents and/or might be derived from the historical data. If a model is not used, information may be available from investment entities, relevant government ministries and statistical agencies and/or research institutions.

At the end of Step 4, the two key tables of information for the baseline scenario will look like the below Tables 2.6 and 2.7.

Table 2.6: Baseline scenario: Cumulative investment flows and financial flows and operating and maintenance costs

Year 20*XX*

Category of investment entity	Source of IF and FF		Investment type 1			Investment type 2			Investment type 3			Total IF and FF		
			IF (2025 US$)	**FF** (2025 US$)	**O&M** (2025 US$)	**IF** (2025 US$)	**FF** (2025 US$)	**O&M** (2025 US$)	**IF** (2025 US$)	**FF** (2025 US$)	**O&M** (2025 US$)	**Total IF** (2025 US$)	**Total FF** (2025 US$)	**Total O&M** (2025 US$)
Households	**Domestic**	Equity and debt												
	Total household funds (all domestic)													
Corporations	**Domestic**	Domestic equity (including internal cash flow)												
		Domestic borrowing (bonds and loans)												
		Total domestic sources												
	Foreign	Foreign direct investment (FDI)												
		Foreign borrowing (loans)												
		Foreign aid (ODA)												
		Total foreign sources												
	Total corporation funds													
Government	**Domestic**	Domestic funds (budgetary)												
	Foreign	Foreign borrowing (loans)												
		Bilateral foreign aid (bilateral ODA)												
		Multilateral foreign aid (multilateral ODA)												
		Total foreign sources												
	Total government funds													

Note: The actual data set would include additional columns for additional investment types. Some investment types will have more than one category of investment entity. Also, Households and Corporations IF and FF should be net of subsidies. If subsidy costs are included explicitly in the assessment, the domestic funds source for Government IF and FF should include subsidy costs. The currency would be US$ or national currency.

Table 2.7: Baseline scenario: Annual investment flows and financial flows and operating and maintenance costs

Annual IF, FF and O&M for all investment types by investment entity/funding source (million 2025 US$)

	Households			Corporations														
	Domestic			Domestic						Foreign								
	Equity and debt			Domestic equity			Domestic borrowing			FDI			Foreign borrowing			ODA		
Year	IF	FF	O&M	IF	FF	O&M	IF	FF	O&M	IF	FF	O&M	IF	FF	O&M	IF	FF	O&M
2025																		
2026																		
2027																		
2028																		
2029																		
2030																		

...add more lines depending on the time horizon of the assessment.

Annual IF for all investment types by investment entity/funding source combination *(continued)* (million 2025 US$)

	Government											
	Domestic			Foreign								
	Domestic funds			Foreign borrowing			Bilateral ODA			Multilateral ODA		
Year	IF	FF	O&M	IF	FF	O&M	IF	FF	O&M	IF	FF	O&M
2025												
2026												
2027												
2028												
2029												
2030												

...add more lines depending on the time horizon of the assessment.

Note: This table is broken into two parts because of space limitations of the page.

Step 5.

Define target scenario.

This step entails developing a description of what is likely to occur in the sector, over the assessment period, in the presence of new and/or scaled up policies to address climate change. The target scenario (containing mitigation or adaptation measures or both) should describe expected socio-economic trends, technological change, relevant sectoral and national plans, the new mitigation or adaptation measures that will be implemented (including the nature, scale and timing of each) and expected sectoral investments given implementation of the measures.

The mitigation and/or adaptation measures identified in Step 1 based on the target to be assessed (NDC, LT-LEDS, national climate change strategy) should be defined clearly to avoid double counting.

If a model is being used in the analysis, it can be used to develop and define the target scenario. Otherwise, a sectoral plan, a projection of trends or a combination can be used as the basis of the projection. Prior work on climate change (e.g., Biennial Transparency Reports, Technology Needs Assessments, National Adaptation Plans, GHG mitigation assessments, vulnerability assessments) should be utilized in this step.

Step 6.

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

Identify annual IF and FF for each investment type, disaggregated by investment entity and funding source.

In this step, annual IF and FF for the target scenario are identified. As with the baseline scenario, costs should be in real terms (in constant 2025 US$ or national currency), discounted and reported in the year in which they are expected to be incurred. IF and FF values should be disaggregated by investment entity and funding source and divided into IF and FF. The output of this step will be a stream of annual IF and FF for each investment type for the entire assessment period, by investment entity and funding source, i.e., a set of data for each year compiled as in Table 2.8.

The source of these data, or method of estimation, will depend on the analytical approach, the sectoral scope and the types of investment entities that are relevant. The IF and FF information may be from a sectoral model or planning documents, might be derived from the historical data or might be based on expert judgement. If a model is not used, information may be available from investment entities, government ministries and statistical agencies and/or research institutions, as well as from prior work on climate change.

Identify annual O&M costs for each IF, disaggregated by investment entity and funding source.

Annual values of O&M costs for the target scenario are also needed. These must include the O&M costs for assets expected to be purchased during the assessment period and the O&M costs for assets purchased before the assessment period and that are expected to still be in operation. As with the baseline scenario, costs should be in real terms (i.e., inflation adjusted), ideally in constant 2025 US$ or national currency, reported in the year in which they are expected to be incurred and discounted using appropriate public and private discount rates.

The annual O&M values for each investment type should be disaggregated by investment entity and funding source (as in Table 2.4) and divided into O&M costs for assets purchased prior to the assessment period. For those assets purchased during the assessment period that are expected to still be in operation after the last year of the assessment period, annual O&M costs for each additional year the assets will be in operation should be identified, up to an additional five years after the last year of the assessment period. This will enable more accurate identification of total costs for new assets to be made.

The output of this step will be a stream of annual O&M costs for each investment type that includes a new asset purchased during the assessment period and streams of annual O&M costs for assets purchased prior to the assessment period, disaggregated by investment entity and funding source.

As with the IF and FF data, O&M values may be from a sectoral model and/or might be obtained from a planning document or from several documents and/or might be derived from the historical data. If a model is not used, information may be available from the investment entities, relevant government ministries and statistical agencies and/or research institutions.

Identify annual subsidy costs for each relevant investment type and for IF, FF and O&M costs, if subsidies are included explicitly in the assessment.

If a country chooses to include subsidies explicitly in their assessment, annual subsidy costs for the target scenario need to be identified. Subsidies should be identified for each relevant investment type and for all categories of cost (IF, FF and O&M) (as in Table 2.5). Costs should be in real terms (i.e., inflation adjusted), in constant 2025 national currency or US$, reported in the year in which they are expected to be incurred and discounted using appropriate public and private discount rates.

Subsidy information may be obtained from the output from a sectoral model, a planning document or from several documents and/or might be derived from the historical data. If a model is not used, information may be available from the investment entities, relevant government ministries and statistical agencies and/or research institutions. At the end of Step 6, the two key tables of information for the target scenario will look like Table 2.8 and Table. 2.9.

Table 2.8 Target scenario: Cumulative investment flows and financial flows and operating and maintenance costs

			Year 20*XX*											
			Investment type 1			Investment type 2			Investment type 3			Total IF and FF		
Category of investment entity		**Source of IF and FF**	**IF** (2025 US$)	**FF** (2025 US$)	**O&M** (2025 US$)	**IF** (2025 US$)	**FF** (2025 US$)	**O&M** (2025 US$)	**IF** (2025 US$)	**FF** (2025 US$)	**O&M** (2025 US$)	**Total IF** (2025 US$)	**Total FF** (2025 US$)	**Total O&M** (2025 US$)
Households	**Domestic**	Equity and debt												
	Total household funds (all domestic)													
Corporations	**Domestic**	Domestic equity (including internal cash flow)												
		Domestic borrowing (bonds and loans)												
		Total domestic sources												
	Foreign	Foreign direct investment (FDI)												
		Foreign borrowing (loans)												
		Foreign aid (ODA)												
		Total foreign sources												
	Total corporation funds													
Government	**Domestic**	Domestic funds (budgetary)												
	Foreign	Foreign borrowing (loans)												
		Bilateral foreign aid (bilateral ODA)												
		Multilateral foreign aid (multilateral ODA)												
		Total foreign sources												
	Total government funds													

Note: The actual data set would include additional columns for additional investment types. Some investment types will have more than one category of investment entity. Also, the households and corporations IF and FF should be net of subsidies. If subsidy costs are included explicitly in the assessment, the domestic funds source for government IF and FF should include subsidy costs. The currency would be US$ or the national currency.

Table 2.9: Target scenario: Annual investment flows and financial flows and operating and maintenance costs

Annual IF, FF and O&M for all investment types by investment entity/funding source (million 2025 US$)

	Households			Corporations														
	Domestic			Domestic						Foreign								
	Equity and debt			Domestic equity			Domestic borrowing			FDI			Foreign borrowing			ODA		
Year	IF	FF	O&M	IF	FF	O&M	IF	FF	O&M	IF	FF	O&M	IF	FF	O&M	IF	FF	O&M
2025																		
2026																		
2027																		
2028																		
2029																		
2030																		

...add more lines depending on the time horizon of the assessment.

Annual IF for all investment types by investment entity/funding source combination *(continued)* (million 2025 US$)

	Government											
	Domestic			Foreign								
	Domestic funds			Foreign borrowing			Bilateral ODA			Multilateral ODA		
Year	IF	FF	O&M	IF	FF	O&M	IF	FF	O&M	IF	FF	O&M
2025												
2026												
2027												
2028												
2029												
2030												

...add more lines depending on the time horizon of the assessment.

Note: This table is broken into two parts because of space limitations of the page.

Step 7.

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

In this step, the incremental (Δ) changes and increases in IF, FF and O&M costs needed to implement the target scenario are calculated by subtracting baseline scenario costs from target scenario costs. Given the scenarios show information disaggregated according to: 1) different investment entities; and 2) different years, this step calculates the incremental values according to different investment entities and different years accordingly. If subsidy costs are included explicitly in the assessment, the changes in subsidy costs will be calculated as well.

The accompanying volume on reporting **(Reporting guidelines for financial assessments to address climate change)** contains advice for complete and transparent reporting of information and the accompanying excel file **(Worksheets for scenario calculations)** contain worksheets for collecting information and performing the calculations.

To perform this step, the values of the baseline scenario are subtracted from those of the target scenario for each investment entity, funding source, investment type and year (see Table 2.10 and Table 2.11).

Table 2.10: Incremental (Δ) cumulative Investment flows and financial flows and operating and maintenance costs

			Year 20*XX*											
			Investment type 1			Investment type 2			Investment type 3			Total IF and FF		
Category of investment entity	**Source of IF and FF**		**ΔIF** (2025 US$)	**ΔFF** (2025 US$)	**ΔO&M** (2025 US$)	**ΔIF** (2025 US$)	**ΔFF** (2025 US$)	**ΔO&M** (2025 US$)	**ΔIF** (2025 US$)	**ΔFF** (2025 US$)	**ΔO&M** (2025 US$)	**ΔTotal IF** (2025 US$)	**ΔTotal FF** (2025 US$)	**ΔTotal O&M** (2025 US$)
Households	**Domestic**	Equity and debt												
	Total household funds (all domestic)													
Corporations	**Domestic**	Domestic equity (including internal cash flow)												
		Domestic borrowing (bonds and loans)												
		Total domestic sources												
	Foreign	Foreign direct investment (FDI)												
		Foreign borrowing (loans)												
		Foreign aid (ODA)												
		Total foreign sources												
	Total corporation funds													
Government	**Domestic**	Domestic funds (budgetary)												
	Foreign	Foreign borrowing (loans)												
		Bilateral foreign aid (bilateral ODA)												
		Multilateral foreign aid (multilateral ODA)												
		Total foreign sources												
	Total government funds													

Note: Each cell of the table will contain the incremental value, i.e. the value of the target scenario minus the value baseline scenario. The actual data set would include additional columns for additional investment types. Some investment types will have more than one category of investment entity. Also, households and corporations IF and FF should be net of subsidies. If subsidy costs are included explicitly in the assessment, the domestic funds source for government IF and FF should include subsidy costs. The currency would be US$ or the national currency.

Table 2.11: Incremental (Δ) annual Investment flows and financial flows and operating and maintenance costs

Annual IF, FF and O&M for all investment types by investment entity/funding source (million 2025 US$)

	Households			Corporations														
	Domestic			Domestic						Foreign								
	Equity and debt			Domestic equity			Domestic borrowing			FDI			Foreign borrowing			ODA		
Year	ΔIF	ΔFF	ΔO&M	ΔIF	ΔFF	ΔO&M	ΔIF	ΔFF	ΔO&M	ΔIF	ΔFF	ΔO&M	ΔIF	ΔFF	ΔO&M	ΔIF	ΔFF	ΔO&M
2025																		
2026																		
2027																		
2028																		
2029																		
2030																		

...add more lines depending on the time horizon of the assessment.

Annual IF for all investment types by investment entity/funding source combination *(continued)* (million 2025 US$)

	Government											
	Domestic			Foreign								
	Domestic funds			Foreign borrowing			Bilateral ODA			Multilateral ODA		
Year	ΔIF	ΔFF	ΔO&M	ΔIF	ΔFF	ΔO&M	ΔIF	ΔFF	ΔO&M	ΔIF	ΔFF	ΔO&M
2025												
2026												
2027												
2028												
2029												
2030												

...add more lines depending on the time horizon of the assessment.

Note: Each cell of the table will contain the incremental value, i.e. the value of the target scenario minus the value baseline scenario. This table is broken into two parts because of space limitations of the page.

In these tables of incremental values, positive figures indicate additional financial requirements (i.e., the target scenario value is larger than the baseline scenario value), while negative figures indicate savings (i.e., the baseline scenario value is larger than the target scenario value). While in most cases positive values will result from this calculation, cases of savings also occur, for example through reduced losses (e.g., through improved supply grids), savings of water or energy and increased efficiency (e.g., through advanced technology).

The magnitude of incremental financial requirements and savings indicate in what way financial resources must be reallocated and increased to reach the target scenario and therefore the national targets that are being assessed. The disaggregated input data for the scenarios make it possible to have a detailed view of the necessary changes and to design specific policies to induce these changes.

Since the assessments consider information that is broken down according to investment entities, years, funding sources, etc. the results can also be shown broken down according to these different dimensions. Figures 2.5 and 2.6 illustrate the results in a simplified way. (Values are illustrative and will differ for every country.)

Figure 2.5: Graphic representation of historical data, baseline scenario and target scenario, indicating additional finance required and financial savings expected

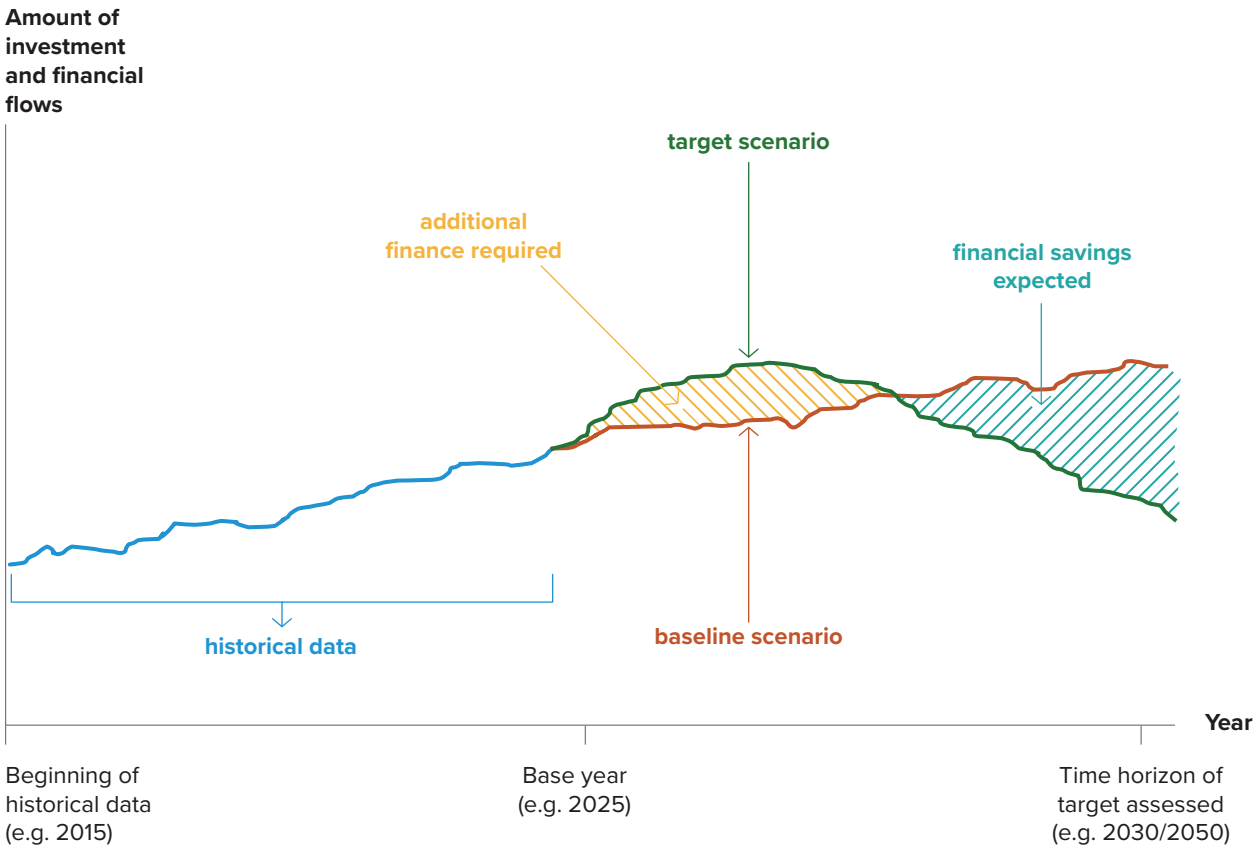
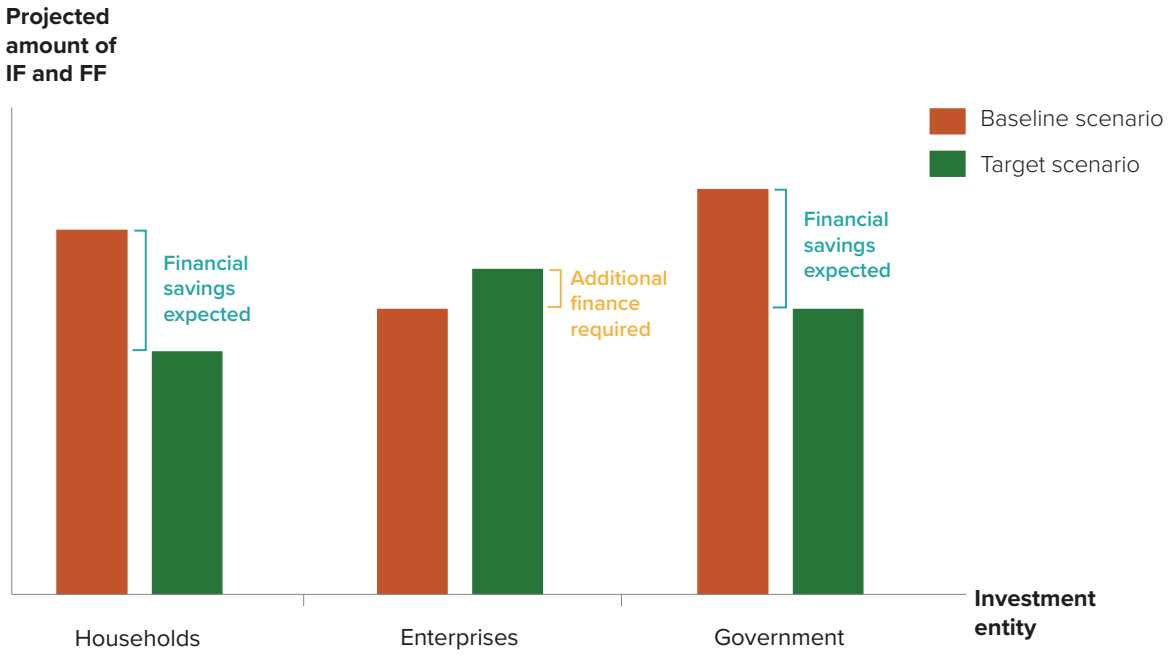


Figure 2.6: Graphic representation of the baseline scenario and target scenario, disaggregated by investment entity (households, enterprises, government)



Result:

To reach the target scenario
x (amount of investment flows and financial flows) financial savings expected
x (amount of investment flows and financial flows) additional finance required

Note: The graphs are only fictitious examples to illustrate the methodology and does not imply expected developments. Alternative examples could take into account additional investments in the future or investments saved. The trend will vary depending on the country and targets assessed, national circumstances, etc.

Step 8.

Identify policy implications.

Now that the required financial reallocations and increases have been identified, this step looks at how to establish policies to incentivize this change. The assessment identified how IF, FF and O&M costs would need to change over time, for each investment type, for each investment entity and funding source and for all investment types, all investment entities and funding sources.

Beside the magnitude of costs, there are further relevant criteria to prioritize climate change measures, such as synergies of climate measures with economic and development priorities, public acceptance and political feasibility.

Looking at the incremental results identified, it can be determined which investment entities are responsible for the most significant (largest and/or highest priority) changes in IF and FF and the predominant sources of their funds. Then, the policy measures that might be used to induce those entities to implement the proposed measures and change their investment patterns and the additional sources of funds that might be utilized to meet new investment needs, need to be evaluated. It will be particularly important to distinguish between public and private sources of finance, as well as between domestic and foreign sources.

Policy measures include a variety of instruments, including regulations, incentives and education. New sources of funds include both domestic sources, such as taxes, and foreign sources, such as ODA.[4]

Looking at the results of the financial assessment, it can be recognized that a considerable part of climate relevant finance is already flowing within a country – often not explicitly called climate finance – which has a relation to climate change, either positively or negatively. This shows the 'big lever' national policymakers have at hand to shift existing finance from a brown agenda toward a green agenda. This helps to make the best use of existing funding, to embark on a transformation from the status quo and to decrease the amount of additional funding needed. In this sense the assessment can also contribute to a country's effort to set up an Integrated National Financing Framework (INFF) to achieve its SDGs.

However additional financing will be needed to implement the national climate targets and policymakers can use different measures to direct financial flows, incentivize investment and mobilize additional funding. These policy measures can be sorted along a spectrum of hard to soft measures:

- on the 'hard' side of the spectrum are notably laws and regulations and debt policy;
- followed by less hard measures that are obligatory, but leave a certain flexibility, such as market mechanisms, taxes and subsidies;
- toward more participatory approaches, including incentivizing private-sector action and investment, de-risking, certification and labelling approaches; and
- finally, toward the soft end of policy approaches, such as education, awareness raising and public campaigns.

Each of these policy measures have specific strengths and weaknesses that can respond to the different needs to create shifts and increases in investments identified.

Seeing the considerable financial flows associated with the baseline scenario highlights that also continuing with business-as-usual activities will come at a considerable cost (cost of inaction), which puts the cost of climate action into perspective and helps making a business case for action.

[4] Information on policy options can be found in the UNDP document National policies and their linkages to negotiations over a future international climate change agreement (July 2008), which gives an overview over a range of policy instruments as well as examples from countries in Africa, Asia and Latin America. The World Bank provides examples of successful policies in its 19 September 2023 feature story, "Climate policies with real-world results."

Step 9.

Synthesize results and complete report.

Capturing the key decisions, data and results of the assessment are important for the credibility of the assessment results. Any outcomes in terms of required financial shifts and increases and associated policy recommendations must be seen in the context of the targets selected for the assessment, the scope of sectors, how mitigation and adaptation measures were broken down to identify IF, FF and O&M cost and what expert judgement was made in terms of the future projections. Saving this information in a structured way also helps using and disseminating the results and tailoring it to different audiences. Having a clear information base on the assessment is also useful for those following up on the results and anyone who wants to build on the assessment outcomes in future.

Saving and structuring all this information doesn't start at the end of the assessment but should happen throughout. At the end of the assessment, all reporting should be completed according to the **Reporting guidelines for financial assessments to address climate change**. The reporting guidelines also explain how to create a summary for policymakers to synthesize results for those interested in the main outcomes. In this summary, at a minimum, two compilations of sectoral results should be completed – one for incremental cumulative total IF and FF and one for incremental annual total IF and FF.

The first compilation (Table 2.12) shows incremental cumulative IF and FF for each sector assessed (in the example, energy, forestry, water and public health are reported). The second compilation (Table 2.13) shows incremental annual total IF and FF for each sector assessed (using the same sector examples).

The additional follow-up chapter describes how countries can use the assessment results further in the context of national policymaking processes. In particular, it discusses how policies can influence investment flows and financial flows to address climate change, it describes types of policy instruments and measures and how to select among them within different contexts and it discusses international sources of finance for addressing climate change.

Table 2.12: Incremental *cumulative* investment flows and financial flows for all investments in all sectors

Category of investment entity	Source of IF and FF		Incremental cumulative (2025-2030) IF and FF (million 2025 US$)							
			Energy (mitigation)		Forestry (mitigation)		Water (adaptation)		Public health (adaptation)	
			ΔIF	ΔFF	Δ IF	ΔFF	ΔIF	ΔFF	ΔIF	ΔFF
Household	**Domestic**	Equity and debt								
	Total household funds (all domestic)									
Corporation	**Domestic**	Domestic equity (including internal cash flow)								
		Domestic borrowing (bonds and loans)								
		Total domestic sources								
	Foreign	Foreign direct investment (FDI)								
		Foreign borrowing (loans)								
		Foreign aid (ODA)								
		Total foreign sources								
	Total corporation funds									
Government	**Domestic**	Domestic funds (budgetary)								
	Foreign	Foreign borrowing (loans)								
		Bilateral foreign aid (bilateral ODA)								
		Multilateral foreign aid (multilateral ODA)								
		Total foreign sources								
	Total government funds									

Note: This is an example of the results that would be displayed for a financial assessment for energy/mitigation, forestry/mitigation, forestry/adaptation and public health/adaptation.

Table 2.13: Incremental *annual* total investment flows and financial flows for all investments in all sectors

	Incremental annual total (2025-2030) IF and FF (million 2025 US$)							
	Energy (mitigation)		Forestry (mitigation)		Water (adaptation)		Public health (adaptation)	
Year	ΔIF	ΔFF	ΔIF	ΔFF	ΔIF	ΔFF	ΔIF	ΔFF
2025								
2026								
2027								
2028								
2029								
2030								

...add more lines depending on the time horizon of the assessment.

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