

# GUIDEBOOK

on the methodology for financial assessments  
to address climate change

## CHAPTER XIII: TOURISM SECTOR

(adaptation to climate change)



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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.

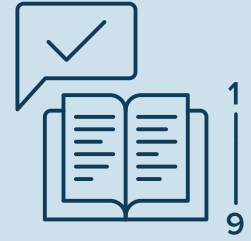
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# About this Guidebook

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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](mailto: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

<b>BAU</b>	Business-as-usual
<b>BS</b>	Baseline scenario
<b>CBD</b>	Convention on Biological Diversity
<b>CDM</b>	Clean Development Mechanism
<b>CO<sub>2</sub></b>	Carbon dioxide
<b>FDI</b>	Foreign direct investment
<b>FF</b>	Financial Flow
<b>GCF</b>	Green Climate Fund
<b>GDP</b>	Gross domestic product
<b>GEF</b>	Global Environment Facility
<b>GHG</b>	Greenhouse gas
<b>IF</b>	Investment Flow
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>ISIC</b>	International Standard Industrial Classification
<b>LT-LEDS</b>	Long-term Low-Emission Development Strategy
<b>LULUCF</b>	Land Use, Land-Use Change and Forestry
<b>NAP</b>	National Adaptation Plan
<b>NDC</b>	Nationally Determined Contribution
<b>NGO</b>	Non-governmental organization
<b>O&amp;M</b>	Operation and maintenance
<b>ODA</b>	Official Development Assistance
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>UN FAO</b>	United Nations Food and Agriculture Organization
<b>UNDP</b>	United Nations Development Programme
<b>UNEP</b>	United Nations Environment Programme
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>UNWTO</b>	United Nations World Tourism Organization
<b>V&amp;A</b>	Vulnerability and adaptation
<b>WHO</b>	World Health Organization
<b>WMO</b>	World Meteorological Organization
<b>WTO</b>	World Trade Organization

Chapters I and II of this guide provide methodology on how to carry out a financial assessment. This chapter provides additional information needed to carry out a financial assessment in the **tourism sector**. To avoid repetition, some of the information provided in Chapter II that is relevant to all sectors is not included in this chapter. Careful reading of Chapter II before this chapter is highly recommended.

## 13.1 Introduction

Tourism is a major economic sector in many countries. Travel and tourism account for ten percent of the global GDP<sup>1</sup> and is one of the fastest growing economic sectors globally.<sup>2</sup>

At the same time, tourism is considered a highly climate-sensitive sector and can itself contribute to climate change (for example, through aviation and coastal overdevelopment).<sup>3</sup> The Intergovernmental Panel on Climate Change (IPCC) identifies tourism as an economic sector “sensitive to a range of climate variables such as temperature, hours of sunshine, precipitation, humidity and storm intensity and frequency, along with the consequences that may follow, such as fires, floods, landslides, coastal erosion and disease outbreaks.”<sup>4</sup> However, due to complex interactions between tourism, the climate system, diverse economic activities, the environment and society, the array of impacts of climate change upon tourism activity can be difficult to identify and quantify.

The tourism sector comprises various subsectors, ranging from tourism in coastal zones, mountains, the mainland, urban areas, world heritage sites and others. For the purposes of this chapter, and according to the priorities identified by many countries, the emphasis will be on tourism in coastal areas, which is by far one of the most predominant areas of touristic activities and of planned investments for capacity expansion and diversification. In many parts of the world the built environment in coastal zones and small islands already faces threats adversely affecting tourism activities. Climate change has major impacts on coastal tourism and those local communities whose livelihoods and economies are dependent on tourism.

Climate change affects tourism and its activities and destinations and the competitiveness and sustainability of the sector. Impacts on climate variables such as temperature, sunshine hours, precipitation, humidity and storms have effects on tourist decision-making and activities, as well as in destination choice. Climate change also affects tourism through impacts on environmental conditions, including changes in water availability, biodiversity loss (terrestrial and marine), coral reefs bleaching, sea level rise, reduced landscape aesthetic value, altered agricultural production, increased natural hazards, beach and coastal erosion and inundation, natural resource changes, damage to infrastructure and the incidence of vector-borne diseases.

The consequences of these effects on the tourism industry can include increased infrastructure damage (including to roads, utilities, airports, hotels or tourism facilities), damage to sea defences (such as reefs and mangroves), additional emergency preparedness requirements, higher operating costs and business interruptions. Operating costs affected by climate change include the costs of heating, cooling, snowmaking, irrigation, food and water supply, insurance, etc.<sup>5</sup>

<sup>1</sup> World Travel and Tourism Council (2024). [Travel & Tourism Economic Impact Research \(EIR\)](#).

<sup>2</sup> Twining-Ward, Louise; Pio, Alex; Suris Coll Vinent, Alba; Bellas Suarez, Paula (2025). [Tourism Watch \(April 2025 Edition\)](#) (English). Washington, D.C. : World Bank Group.

<sup>3</sup> World Economic Forum, World Tourism Organization (UNWTO), United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) (2007). [Davos Declaration](#), Second International Conference on Climate Change and Tourism, Davos, Switzerland.

<sup>4</sup> Wilbanks, T.J., P. Romero Lankao, M. Bao, F. Berkhout, S. Cairncross, J.P. Ceron, M. Kapshe, R. Muir-Wood and R. Zapata-Marti (2007). [Industry, settlement and society](#). In: Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the IPCC, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, pp. 357-390.

<sup>5</sup> World Tourism Organization and UNEP (2008). [Climate Change and Tourism - Responding to Global Challenges](#). World Tourism Organization. Spain, 2008.









Climate change impacts are most notable for areas where tourism represents a large share of the economy and in these areas adaptation may represent a significant need and a significant cost.<sup>6</sup> One challenge in an assessment of adaptation in the tourism sector stems from uncertainties in climate change projections and in the quantification of impacts.

Adaptation measures for the tourism sector typically focus on preventing impacts or reducing the damage of extreme events and are generally of two types: 1) operational-level measures, including technical (systems and equipment) and managerial measures (decisions and plans); and 2) sector-wide measures, including research, education, infrastructure, policy and institutional measures (see Table 13.1).

## 13.2 Application of the financial assessment methodology to adaptation in the tourism sector

This section describes how the financial assessment methodology described in Chapter II would be applied to adaptation in the tourism sector. Some of the information provided in Chapter II relevant to all sectors is not repeated here, so the reader should read Chapter II before reading this chapter.

As described in Chapter II, the financial assessment involves a series of steps, which are:

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- 
**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.

<sup>6</sup> Mimura, N., L. Nurse, R.F. McLean, J. Agard, L. Briguglio, P. Lefale, R. Payet and G. Sem (2007). *Small islands*. In: Climate Change Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the IPCC, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, pp. 687-716.

## Step 1.



### Establish key parameters of the assessment.

#### Define detailed scope of the sector.

In this step, the precise sub-sectors of the tourism sector that are to be included in the financial assessment are defined. Adaptation measures in the tourism sector to be included in the assessment will be based on the national target that is being assessed (e.g. NDC, LT-LEDS, other). The capacity to adapt to climate change may vary among sub-sectors, for example tourism service suppliers, destination communities and tour operators.<sup>7</sup> Different adaptation measures may apply for different types of tourism, such as adventure tourism, cultural tourism, gastronomic tourism, etc.

When determining the scope of the assessment, consideration should also be given to data availability, the structure of national government entities in which data reside and the scope of related assessments that have been completed, especially relevant work in the National Communications, National Adaptation Plans (NAPs), vulnerability assessments, among others.

#### Specify base year and assessment period.

The most recent year for which historical data is available is recommended as the base year (e.g., 2025). The assessment period should match the time horizon of the target that is being assessed. NDCs often have a time horizon until 2030, LT-LEDS often until 2050. The assessment period should have a considerable length to be sufficiently able to take into account the long lifetimes of infrastructure in the sector.

#### Identify the target to be assessed and adaptation measures.

A set of adaptation measures must be identified for the tourism sector to be included in the assessment (see Table 13.1). National targets that are being assessed are often general and visionary and not detailed enough to directly use them for a financial assessment. Therefore, the first step is to break down the overall national target into concrete measures and steps of action that can be used for the financial assessment.

Breaking down the national target often includes technical and political considerations. Therefore, it is key to do this step in close consultation with national policymakers to ensure their ownership of and buy in to the measures being identified. The selection of options should also consider relevant previous work in the sector including national and sectoral plans, National Communications, NAPs and National Adaptation Programmes of Action. The selected adaptation measures need to be specific and broken down into concrete activities so that the IF, FF and O&M costs can be identified in Steps 4 and 6.

<sup>7</sup> Becken, S. and Hay, J. (2007). [Tourism and climate change – risks and opportunities](#).

**Table 13.1: Tourism adaptation measures**

Adaptation measure	Examples
<b>Operational level</b>	
<b>Technical (systems and equipment)</b>	Rainwater collection and water recycling systems
	Cyclone-proof building design and structure
	Building design for efficient cooling
	Storm early warning system and equipment
<b>Managerial (decisions and plans)</b>	Water conservation plans
	Recycling grey water in the industry (from sewerage systems or industry processes)
	Product and market diversification
	Regional diversification
	Use of short-term seasonal forecasts for planning of activities
	Hurricane interruption guarantees
	Improved insurance cover
<b>Sector wide</b>	
<b>Research</b>	Site location
	Monitoring programmes
	Seasonal weather forecasting
	Forecasting, early warning and disaster management
	Extreme event risk exposure
	Assess water quality
<b>Education and training</b>	Water conservation campaigns
	Environmental education and awareness for both local population and tourists
<b>Infrastructure</b>	Reservoirs and desalination plants
	Rainwater storage
	Soft coastal protection
	Enhancing preservation of natural sea-defenses (mangroves)
	Coastal defence structure: Building seawalls and breakwaters
	Coastal zone protection: physical barriers
	Beach nourishment/erosion control project
	Reconstruction and stabilization of historical assets
<b>Policy/institutional measures</b>	Wastewater management
	Land and coastal management plans
	Fee structures for water consumption
	Building design codes and material standards
	Impact management plans
	Insurance policy and regulations
	Fiscal incentives for investments
	Lending policies
	Tourism regulation and codes
	Enhanced design, siting (i.e. selection of location) standards and planning guidelines
Other institutional development, including capacity building and improved management and governance systems	

Source: World Tourism Organization and UNEP (2008). [Climate Change and Tourism - Responding to Global Challenges](#). World Tourism Organization. Spain, 2008.

The selection of adaptation measures should also consider data availability, technical feasibility, logistical feasibility, acceptability of the measures, as well as economic and social benefits and costs of those measures.

Given the numerous links between tourism and other sectors, the potential is high for synergies between adaptation in the tourism sector and mitigation and adaptation in other sectors. Tourism is linked, for example, to the water sector through demand for freshwater, to the energy sector through the demand for energy and to the waste management sector through waste generation. It is linked to health through disease outbreak management and to ecosystem health when it is based on interactions with ecosystems.

## Select analytical approach.

Countries need to determine the analytical approach that will be used to develop baseline and target scenarios and associated streams of annual IF, FF and O&M costs.

The analytical approaches range from simple spreadsheets to dynamic models that identify interactions between economic and ecological systems. For example, coastal zone management models may track annual investment flows. Available tools are described below.

- Dynamic Interactive Vulnerability Assessment (DIVA) and Dynamic and interactive assessment of national, regional and global vulnerability of coastal zones to climate change and sea-level rise ([DINAS-COAST](#)). These integrated assessment tools explore the vulnerability of coastal areas to sea level rise.
- Simulator of Climate Change Risks and Adaptation Initiatives' ([SimClim](#)). This software enables the examination of future climate scenarios.
- Coastal Zone Simulation Model ([COSMO](#)). This decision-support model allows coastal zone managers to evaluate management strategies under different scenarios, including long-term climate change.
- Integrated Coastal Zone Management Decision Support Modelling for Coral Reef Ecosystems (CORAL). This is a multi-variate, least-cost integrated coastal zone management model.

It is encouraged to build on existing information structures. If a country does not already have extensive experience with a particular model it is recommended that spreadsheets to collect information and extrapolation to project data are used to develop the scenarios. Excel spreadsheets are available for countries to collect and process information and to perform the calculations.

## 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.

The methodology recommends that countries compile ten years of historical investment and financial flows data, i.e., for the base year and the previous nine years. At a minimum, countries should collect at least three years of data (i.e., for the base year and two years during the previous decade). 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 (see Chapter II, Table 2.3: Template for one year of historical investment and financial flows data).

In the tourism sector, investment flows would include assets such as hospitality facilities, resorts, buildings, communication and transportation infrastructure, communication equipment, vehicles, infrastructure (e.g., hard coastal structures such as seawalls, marina facilities), etc. Investment flows would also include assets for infrastructure and vehicles. Financial flows would include programmatic expenditures in research, education, assistance (e.g., labour costs), etc.

To facilitate the task, Table 13.2 lists different potential IF and FF in the tourism sector.

**Table 13.2: Examples of investment flows and financial flows in the tourism sector**

Year 2025		
Types of investment and financial flows	IF (2025 US\$)	FF (2025 US\$)
<b>Government</b>		
Policies and institutional measures		X
Regulations		X
<b>Government/private</b>		
Infrastructure	X	
Technical	X	
Managerial	X	
<b>Education and Training</b>		
Job diversification		
Use of new technologies		X
Management		
Public		
<b>Insurance</b>		
Cluster insurance		
Pooling of risks		X
Financial instruments		

**Table 13.2: Examples of investment flows and financial flows in the tourism sector (continued)**

Year 2025		
Types of investment and financial flows	IF (2025 US\$)	FF (2025 US\$)
<b>Research</b>		
Forecasting		
Risk analysis		X
Resource monitoring		

Note: X Indicates the likely type of flow.

Investment flow data and financial flows data will likely reside in several domestic locations, such as ministry records and plans, industry records, statistical agencies, research institutions and national accounts.

International structures for national accounts of IF and FF in tourism may cross different categories, including “wholesale, retail trade, restaurants and hotels,” “construction” or “transport, storage and communication,” which implies that disaggregating the investments in tourism alone may be challenging. Another consideration is that much of the tourist industry may be privately held or operated, so collaboration with the private sector is essential to ensure information access.

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

Historical O&M costs are also needed to provide a basis from which to project future O&M costs for new physical assets. Annual O&M costs for the physical assets in operation during the historical period should be collected for the same years for which historical IF and FF data are collected. Information about the expected lifetimes of assets such as buildings, vehicles and equipment that are in operation during the historical period and annual fluctuations in O&M costs also need to be collected.

O&M data should be collected at a level of disaggregation consistent with the IF and FF data and 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 (see Chapter II, Table 2.4 Template for three years of historical O&M cost data for an investment flow in 2023). Climate has an important influence on operating costs, such as back-up water and power systems costs and waste management costs.

The O&M costs may reside in the same locations as IF and FF data, these being national accounts, ministry records and plans, industry records, statistical agencies and research institutions. If such data are not available, countries can utilize one of the below approaches to derive estimates (see Chapter II).

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

Examples of O&M costs are shown in Table 13.3, which can be expanded as required by policy needs and permitted by data.

**Table 13.3: Examples of O&M costs for the tourism sector**

Examples of O&M costs	Current outlays
<b>Salaries or wages of personnel</b>	Compensation to human resources Wages Social contributions Non-wage labour income
<b>Running costs</b>	Costs of fuel and lubricants Heating or cooling Equipment maintenance Communication
<b>Materials</b>	Supplies and consumables Material supplies (food, other supplies) Services
<b>Other</b>	Other current expenditures

## Compile other input data for scenarios.

In addition to historical IF, FF and O&M cost data, the characterization of the scenarios and projection of annual IF, FF and O&M for the scenarios will require the collection of other historical data relevant to the sector, which may include:

- Data on tourism activities, including past and current trends, level of activity, occupation rates, investments plans, customers profiles, tourists flows, etc.;
- Adaptation options, including technical feasibility, cultural acceptability, scalability and economic feasibility (for example, indicate new technology relevant to tourism and climate change such as coastal defences, natural resources available to assist in adaptation strategies such as beach sand and fresh water and the existence of disaster response plans, awareness and knowledge);
- Possible externalities and links with other sectors should be noted and described, such as links to the energy, health, agriculture, water resources and biodiversity sectors.
- Information about sectoral and macroeconomic policies that could affect the tourism sector should also be collected, for instance agriculture promotion could reduce the attraction of a particular site and thus reduce tourist flows.

This information may be available from the domestic sources mentioned above for IF, FF and O&M cost data. In addition, the United Nations World Tourism Organization maintains several publicly available statistical databases and information systems that contain useful national tourism statistics and related information.

### Step 3.



## Define baseline scenario.

Constructing the baseline scenario for tourism requires projecting the historical data into the future, i.e. the investment in businesses (e.g., hotels, restaurants) and the associated physical infrastructure (e.g., roads, communications) as well as service industries (e.g., travel agencies, tourism information centres), to support the expected tourism.

This step entails describing what is likely to occur without the implementation of *additional or scaled up* adaptation policies and measures to address climate change over the assessment period. It should reflect current sectoral and national plans, expected socio-economic trends and expected investments. It should include a quantitative description of the socio-economic factors (e.g., demographic change, economic growth).

The baseline scenario description should include specific information about equipment, facility and infrastructure investments that are expected, as well as research, education, assistance and institutional investments.

Creating the baseline scenario includes:

- › Identify relevant contacts or reports and databases at national and international organizations.
- › Assemble the current inventory of tourism sector characteristics, including commercial infrastructure, e.g., hotels, restaurants, physical barriers (such as breakwaters and coastal zone protection like beach nourishment regimes).
- › Obtain national (and provincial) tourism sector growth forecasts over the assessment period by region, as possible. For example, ministry plans typically have detailed budgetary breakdown for current and future investments.
- › Obtain major recent policies or expected actions that might affect the baseline scenario projections.
- › Assemble information on resource potential and costs for alternative tourism management strategies.

The baseline scenario will be developed based on past touristic patterns of the country plus existing tourism investment plans. The type of options to meet this demand will need to be identified (e.g., additional hotels and more utility services, such as water supply, electricity and local transport), given the current policy and regulatory frameworks in the country.

## 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 for the baseline scenario covering facility and infrastructure investments, such as hospitality building construction or transportation infrastructure, as well as the annual FF for the baseline scenario covering research, education, assistance and institutional financial flows (e.g., meteorological equipment and vehicles) are identified for each activity of the baseline scenario.

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

Annual O&M costs for assets purchased during the assessment period and for assets purchased before the assessment period and that are expected to still be in operation need to be collected. This can include, for example, O&M cost for heating or cooling, snowmaking, additional irrigation, back-up water supplies and power systems.

The output of this step will be a stream of annual IF and FF for each investment type in each subsector for the entire assessment period, disaggregated by investment entity and funding source. These data should be organized as in Chapter II, Table 2.6: Baseline scenario: *cumulative* investment and financial flows and O&M and Table 2.7: Baseline scenario: *annual* investment and financial flows and O&M.

## Step 5.



**Define target scenario.**

This step entails describing what is likely to occur in the tourism sector over the assessment period with implementation of additional and scaled up adaptation measures. This includes comprehensive descriptions of the specific adaptation measures that would be implemented. The adaptation measures will be based on the national target that is being assessed (NDC, LT-LEDS, other).

The adaptation measures need to be defined clearly and completely so that IF, FF and O&M costs can be determined in the next step. This should include specific information about facility and infrastructure investments that would occur, as well as non-asset investments. In-country expertise and prior work on climate change adaptation in tourism (e.g., National Communications, vulnerability assessments, NAPs, National Adaptation Programmes of Action, etc.) should be utilized in this step.

At the end of this step the target scenario has been described and includes all measures in the tourism sector derived from the national target that is being assessed.

## Step 6.



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

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

In this step, annual IF for the target scenario (technology, managerial facility and infrastructure investments) and annual FF (for the research, education, extension and institutional investments) are identified for each measure identified in the previous step.

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

The O&M costs are identified for all activities of the target scenario.

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. These data should be organized as in Chapter II, Table 2.8: 'Target scenario: *cumulative* investment and financial flows and O&M and Table 2.9: Target scenario: *annual* investment and financial flows and O&M.

## Step 7.



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

The changes in IF, FF and O&M costs that are needed to implement the adaptation measures are calculated in this step by subtracting the IF, FF and O&M cost values of the baseline scenario from those of the target scenario. The two primary objectives of this step are to determine: 1) how *cumulative* IF, FF and O&M costs would change; and 2) how *annual* IF, FF and O&M costs would change. The calculations which should be completed are described in Chapter II.

The accompanying volume on reporting, *Chapter XVI: Reporting guidelines for financial assessments to address climate change* and associated excel files contain worksheets that can be used for capturing and processing information and to perform the calculations.

## Step 8.



### Identify policy implications.

Once in Step 7 the incremental investment and financial flows and O&M costs have been calculated, during Step 8 the investments, sources and years will be identified that need to see the largest changes to move towards the target scenario.

The purpose of this step is to evaluate the policy implications of the results of the assessment for the sector. The calculations in the previous step determine the magnitude and timing of changes in IF, FF and O&M by each investment entity and from each funding source that would be needed to implement the adaptation measures.

Policies such as investment incentives, marketing programmes, physical development, tourism management policies are likely to be needed to induce the relevant entities identified in the assessment to implement proposed measures and incur the related IF and FF. It will be important to convene a discussion among stakeholders regarding the set of policies and incentives necessary to influence investment decisions.

Several evaluation criteria are possible (e.g. cost, ease of implementation, delivered intended benefits, adverse effects). When screening policy options, social, economic and environmental benefits should be acknowledged qualitatively.

Policies include a variety of instruments that would affect the magnitude and direction of IF and FF. Policy instruments cover economic (e.g., introducing taxes on certain tourism-related activities), regulatory (e.g., setting standards or limiting new tourism development) and insurance measures. They can include lending policies, voluntary agreements, information dissemination, strategic planning and research, development and demonstration.





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