

# ASSESSING INVESTMENT & FINANCIAL FLOWS FOR CLIMATE CHANGE



# INTRODUCTION TO THE TRAINING



## Day 1

- Introduction and context of the project
- Why assessing Investment and Financial Flows (I&FF)?
- UNDP methodology to assess I&FF

## Day 2

- Group work by sectors

## Day 3

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

## Objectives

- Build capacity for national team to use the I&FF assessment methodology
- Identify workplan

## Expected national benefits

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

## **Modalities of the training**

- Presentations and plenary discussions
- Groupwork for each sectoral team

## **Preparations done**

- Sector selection
- National expert team identified
- National inter-ministerial dialogue on climate change held yesterday

# INTRODUCTION: CLIMATE CHANGE AND GLOBAL CONSULTATIONS



### **Why consider Climate Change in development planning**

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

### **Global negotiations call for nationally determined commitments**

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



## Key messages from the negotiations

- The **hybrid approach** of the Paris Agreement – on the one hand bottom up (in the sense that all countries, through their National Assessment Contributions - INDCs, define how they will address the Climate change) and top-down
- the Paris Agreement ensures that the **individual development priorities** of the country are integrated into the targets of the global climate.

## Importance of planning tools

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

*These points are addressed through the Investment & Financial Flows (I&FF) assessments*

# THE CONTEXT OF INVESTMENT AND FINANCIAL FLOWS ASSESSMENTS



### The I&FF assessments

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



## Why an I&FF assessment

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

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

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

## What challenge does the approach address

**Supports countries to cost the investment & financial flows needed to mitigate/adapt to climate change as described in the INDC:**

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

## Assessments of investment and financial flows are crucial tools to:

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

## What challenge does the approach address

### Using the methodology, countries:

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



### **What questions does the Investment and Financial Flows (I&FF) assessment help answer?**

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

## What challenge does the approach address

### Key features of the methodology:

- The I&FF assessments use current & historic information to **project** future needs.
- **Articulate needs** to address climate change in key sectors in a systematic way.
- **Determine the magnitude** of national efforts required to address climate change
- **Encourage long-term planning** that incorporates climate change investment decisions.

### Elements of the methodology:

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

### The assessments are useful for:

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

### About the I&FF methodology:

- The I&FF assessments were developed by UNDP in 2008 and until today have been applied by almost 20 countries.
- More information about the I&FF methodology and finalized assessments:

<https://www.ndcs.undp.org/content/ndc-support-programme/en/home/our-work/focal/ndc-finance-and-investment/investment-and-financial-flows--iff--assessments/domestic-finance-assessments-iff-methodology.html>

### Key results:

- **UNDP I&FF methodology** prepared & peer reviewed in two global meetings
- National Inter-Ministerial Dialogue **Resource Kit** available in 6 languages (EN, FR, SP, RU, AR, PO)
- 19 Initial **National Dialogues**, >1 660 participants
- >500 **experts from 15 countries trained** in UNDP methodology
- **I&FF assessments** completed in 15 countries, bringing to total of 34 assessments under the programme
- 15 Concluding **National Dialogues**, >1 070 participants

### **Key resources:**

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

### **Support products:**

- Workplan Guidance, Methodology, Reporting Guidelines
- Excel Worksheets for I&FF calculations
- Template for Test Run of Methodology
- National Dialogues packages

### **Results products:**

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



# Q&A CLARIFICATIONS



# PROCESS STAGES & SUPPORT



## Goals

- Development of national policy options to address climate change in key sectors

## Outcomes

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

# Sequencing of national activities

## Preparation stage

Pre-workshop preparation  
(2 months)

National Dialogue on climate change

- Key line ministries engaged
- Key sectors identified
- National issues papers prepared

- National workshop on:
- Climate Change
  - National Adaptation & Mitigation targets
  - Key sectors

## Implementation stage

Assessment of I&F flows to address CC mitigation/adaptation options for ~3 key economic sectors (6-8 months)

UNDP methodology on assessing I&F flows

## Reporting stage

National workshop to present results, policy options

- Update on climate change negotiations
- I&F flows assessments presented
- Follow-up activities discussed

## Define & agree

- National objectives/goals
- Key sectors/scope
- I&FF team
- Capacities/needs: methods, information...
- Institutional arrangements
- On workplan/budget
- Available scenarios

**Conduct I&FF assessment in key sectors selected by the country using the UNDP I&FF methodology and the sector specific guidance & reporting guidelines**

**Guidance & procedures for**

- Documentation & archiving
- Spreadsheet management
- Quality control & quality assurance procedures

- Ongoing activity, not starting at the end of the assessment
- Define outcome (decision making tool, policy tool), target group (internal/external) to draft report
- Ensure good drafter for preparation of report(s)
- Purpose: documentation of steps and processes for interpretation of outcomes & for later follow-up work

## Support to the 3 stages of the project

- Work plan guidance
- Methodological guidance
- Reporting guidance

## UNDP technical backstopping

- Training on assessment of I&FF
- 24 days of technical backstopping incl.
  - ▣ Review of workplan, draft and final assessments
  - ▣ Guidance on scenarios, data, approach



## Knowledge platform

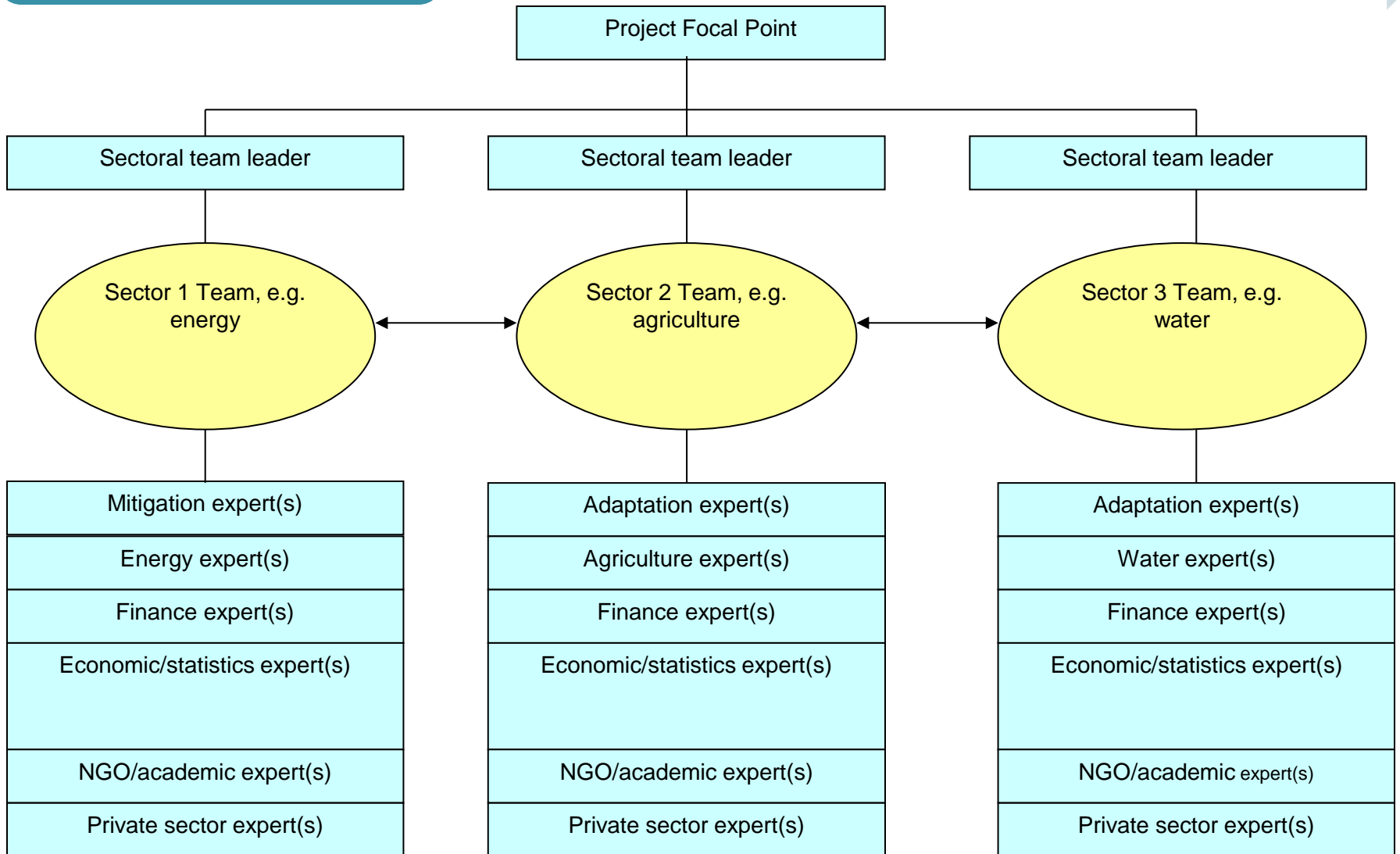
<https://www.ndcs.undp.org/content/ndc-support-programme/en/home/our-work/focal/ndc-finance-and-investment/investment-and-financial-flows--iff--assessments/domestic-finance-assessments-iff-methodology.html>

- See full methodology
- See excel spreadsheet for data analysis
- See completed I&FF assessments, summaries for policy makers and 4-page results flyers

## Country checklist

- Sectors selected
- Workplan developed
  - ✓ Roles and responsibilities
  - ✓ Timeline
- Team established
- Institutional agreements reached
  - ✓ To share information
  - ✓ To collaborate

# Team composition



# Q&A CLARIFICATIONS



# THE I&FF ASSESSMENT



## What challenge does the approach address

### **Key questions the approach addresses:**

- What are adaptation/mitigation options for key sectors in next 20 years?
- Which are major sources of public & private funds & who invests?
- What changes in I&FF are needed in the sector?
- What additional I&FF is needed to address climate change?

### Investment Flow

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

## Financial Flow

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



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

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

## **Sources of investment and financial flows:**

- National Capital and Subsidies
- External debt
- Foreign assistance
- National and foreign loans
- Etc.

## **I&FF Entities**

- Households
- Corporations
- Government

**Scenario:** coherent and plausible characterization of the future conditions of a sector for a specific period (2015-2030)

**Business as usual:** describes what happens without new policies to address climate change

**Target scenario:** includes new measures to reduce GHG emissions or to respond to potential impacts of climate change.

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

## What is adaptation?

*Process to adjust sustainably and for the long-term to changing circumstances.*

- Closely related to development
- It requires adjustments in all aspects of society, the environment and the economy
- It is linked to economic development, poverty reduction and disaster risk management
- Requires planning capacity for short and long term

## What is mitigation?

*An anthropogenic intervention to reduce GHG sources or to increase the sinks of GHGs.*

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

### **Sources of information include:**

Existing studies/plans on climate change or development

- National strategies and plans, the INDC / NDC
- National Communications
- National Adaptation Programs of Action (NAPA)
- The system of national accounts (SNA)
- Vulnerability studies, Technological Needs Assessment (TNA)
- Sectoral data and projections from Ministries / Statistics Directorates / Research Centers / Business Associations

# Q&A CLARIFICATIONS



# I&FF ASSESSMENT METHODOLOGY – STEP BY STEP





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

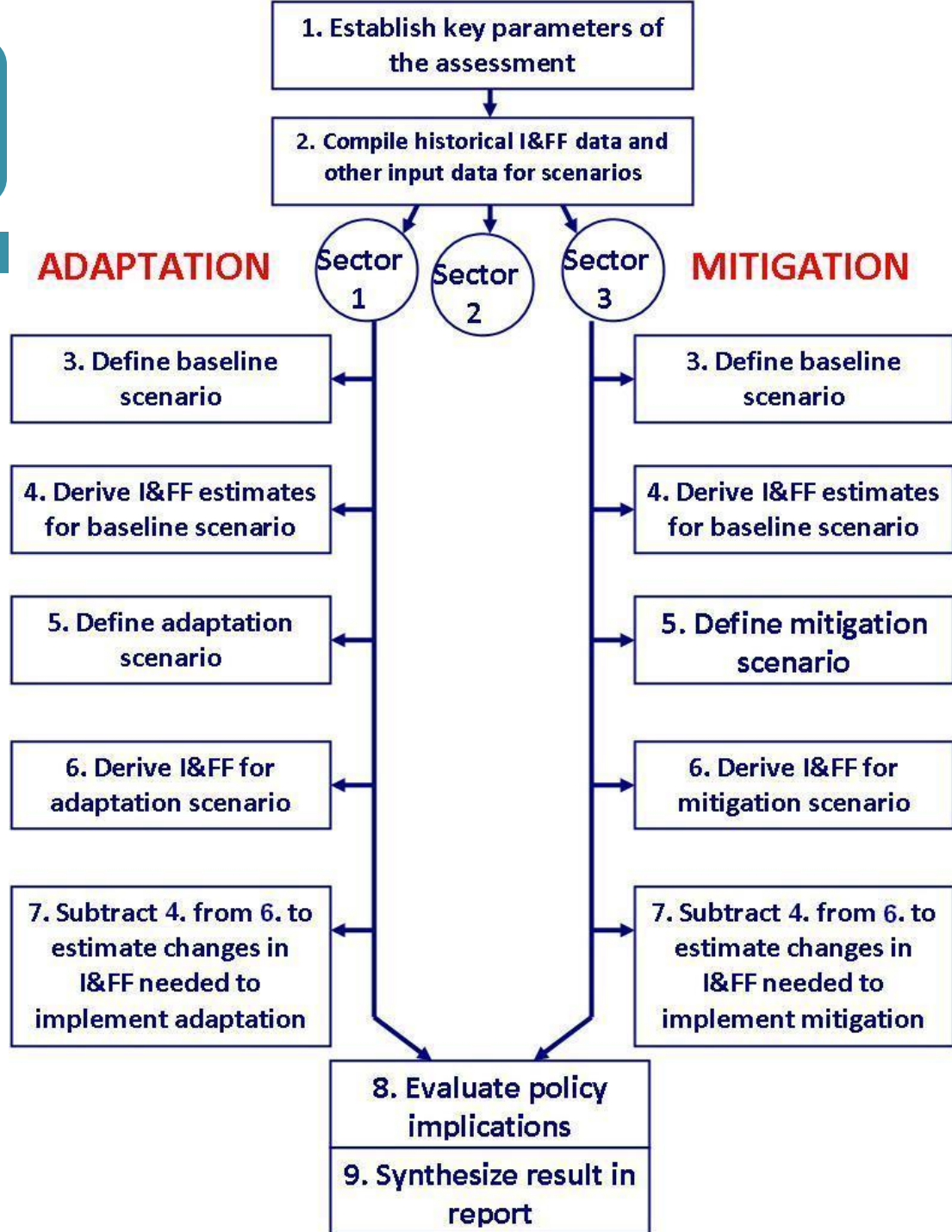
### What the methodology defines...

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

### What the national team needs to define...

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

# Steps in the Sectoral Assessments of I&FF to Address Climate Change



**Step 1: Establish key parameters of assessment**

**Step 2: Compile historical I&FF data and other input data for scenarios**

**Step 3: Define baseline scenario**

**Step 4: Derive I&FF for baseline scenario**

**Step 5. Define mitigation / adaptation scenario**

**Step 6: Derive I&FF for mitigation / adaptation scenario**

**Step 7: Estimate changes in I&FF needed for mitigation / adaptation**

**Step 8: Evaluate policy implications**

**Step 9: Synthesize results and complete report**

# 1. Establish key parameters of assessment

- Define detailed scope of the sector
- Identify preliminary mitigation (or adaptation) measures
- Specify assessment period & base year
- Select analytical approach

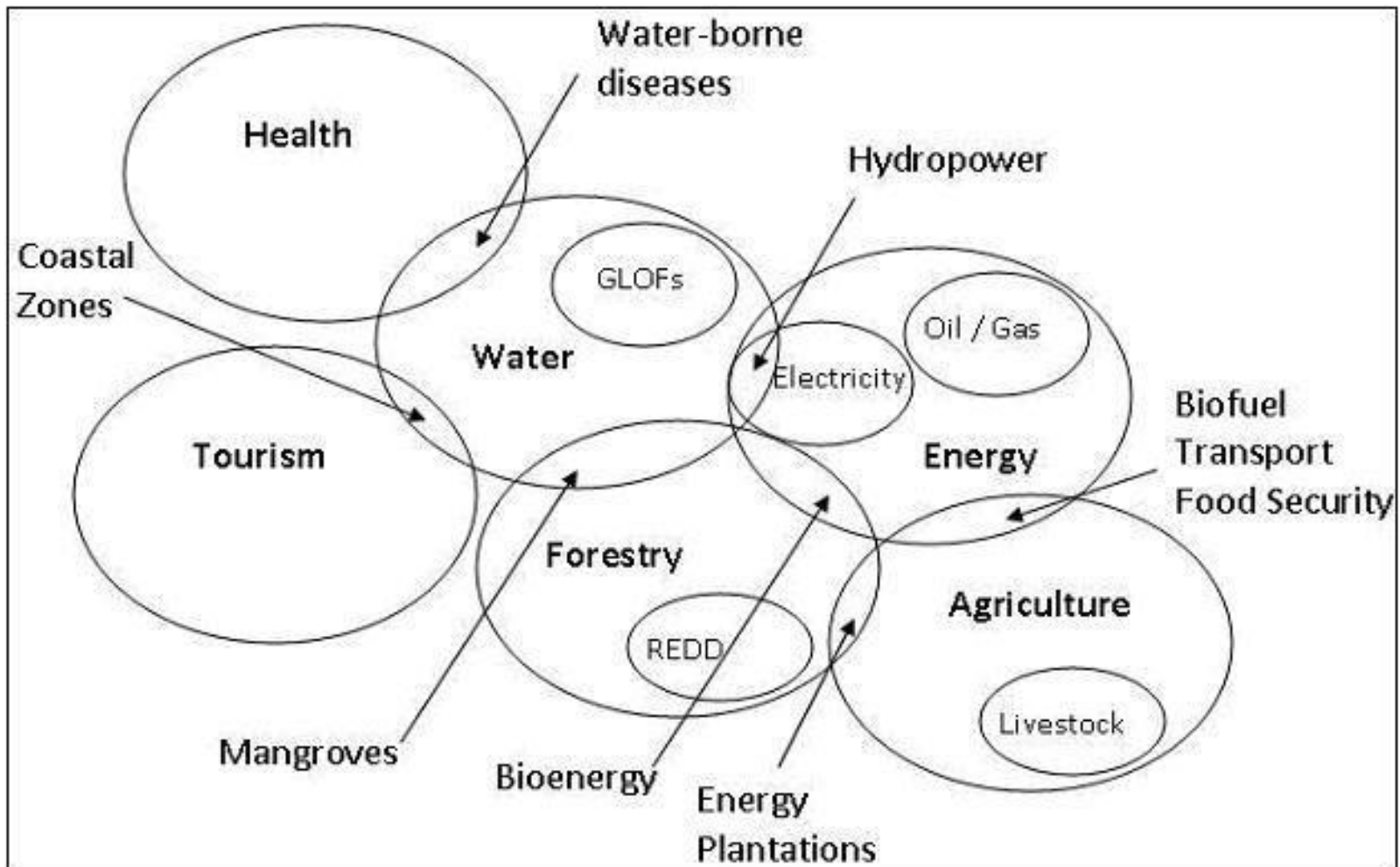
## **Preliminary mitigation/adaptation measures**

- Selection of measures to be based on:
  - National and sectoral priorities
  - Existing groundwork on mitigation/adaptation
  - Feasibility of implementation
  - Data availability
  - Development benefits and other (environmental, economy and social) co-benefits of measures

## How to scope a sector

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

## Potential sectoral overlaps





## Addressing additional benefits

- The methodology does not provide for quantitative, but **qualitative** analysis, examples:
  - ▣ Change of crop type helps to adapt & emits less GHG
  - ▣ Enhanced water management to adapt to climate change can also have positive health effects
  - ▣ Job creation through a new policy

## 1. Establish key parameters of assessment

### Specify assessment period & base year

#### **Assessment period & base year**

- Base year 2015 recommended (or latest available)
- Assessment period of 2015-2030 recommended

#### **Cost accounting issues**

- Constant 2015 US\$ are recommended
- Costs for assets should be reported in the year in which they are expected to be incurred
- Discounting of costs should be done

## Preliminary mitigation/adaptation measures

- Measures can be obtained from
  - ▣ Existing sectoral or national plans
  - ▣ National Communications
  - ▣ Technology Needs Assessments (TNAs)
  - ▣ National Adaptation Programmes of Action (NAPAs)

- Any of these analytical approaches can be used to develop scenarios, & associated streams of annual I&FF and O&M costs
  - ▣ A suitable sectoral model
  - ▣ A sectoral plan
  - ▣ A projection of sectoral trends
  - ▣ The current situation in the sector
  - ▣ A combination of those approaches

## **At the end of step 1**

- ✓ Sector scope defined in detail, avoiding overlaps with other sectors
- ✓ Base year & assessment period (~2030) specified
- ✓ Preliminary mitigation (or adaptation) measures identified
- ✓ Analytical approach selected (model or spreadsheet exercise)

# Q&A CLARIFICATIONS



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## 2. Compile historical I&FF data and other input data for scenarios

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



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

**2. Compile historical I&FF data and other input data for scenarios**

**Compile Historical I&FF Data & Other Input Data for Scenarios**

**Template for 1 Year of Historical I&FF Data (simplified)**

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

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

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

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

## **At the end of step 2**

- ✓ Necessary data identified & access located
- ✓ Arrangements for data-sharing made
- ✓ Annual I&FF data compiled (3-10 years),
- ✓ Annual historical O&M data compiled (3-10 years)
- ✓ Other input data for scenarios compiled

# Q&A CLARIFICATIONS



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## 3. Define baseline scenario

### **Describe:**

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



### 3. Define baseline scenario

### Define baseline scenario

- Project the behavior of the sector in a **business as usual scenario** (without new policies related to climate change) until 2030.
- Include currently projected climate change activities (based on current policies or trends), for which resources are available and effectively being implemented

- Characterizing the sector over the assessment period under business-as-usual conditions, in the absence of **new** policies on climate change
  - ▣ Expected socioeconomic trends
  - ▣ Technological change
  - ▣ Expected investments in the sector, including the nature, scale, & timing of those investments

### 3. Define baseline scenario

### Define baseline scenario

- Should be consistent with trends reflected in the historical data collected in the previous step
- Current or past climate change activities are considered in the baseline scenario

#### **At the end of step 3**

The baseline scenario is developed

- ✓ Agreed which policies & measures go into it
- ✓ Socioeconomic trends described
- ✓ Technological change/advances estimated
- ✓ Business-as-usual investments defined
- ✓ Exact model/spreadsheet to be used defined

# Q&A CLARIFICATIONS



**Step 1: Establish key parameters of assessment**

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## 4. Derive I&FF for baseline scenario

- Derive annual IF & FF estimates, disaggregated by investment entity & source
- Derive annual O&M estimates, disaggregated by investment entity & source

## Example step 4: Energy sector

- Labeling the activities, measures and policies that are considered to go into the baseline scenario (step 3) with their costs
  - Sticking to the current energy mix - label it with expected costs for power plants etc.
  - Government to expand the current grid – label it with expected costs for infrastructure etc.
  - ...



## Compile annual estimates disaggregated by

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

## 4. Derive I&FF for baseline scenario

Derive annual O&M estimates

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

### At the end of step 4

- ✓ Annual I&FF estimated - each of the policies & measures of the baseline scenario is calculated
- ✓ Annual O&M costs estimated – for each of the investments the O&M costs are calculated

## 4. Derive I&FF for baseline scenario

## Example water sector – year 2015

Investment entity	Source of I&FF		Baseline scenario								
			I&FF and O&M for 2015								
			Water sector								
			Investment 1: Construction of dam			Investmetn 2: Campaign for efficient water use			Total investments		
			IF	FF	O&M	IF	FF	O&M	IF	FF	O&M
Households	Domestic	Equity & debt									
Corporations	Domestic	Own capital									
		Domestic Borrowing									
	Foreign	Debt									
		Foreign loans	1000						1000		
		ODI									
Total Corporations											
Government	Domestic	Equity & debt (budgetary)					300			300	
		Foreign loans									
	Foreign	ODI									
		Total Government									
TOTAL			1000				300		1000	300	

# Q&A CLARIFICATIONS



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## 5. Define mitigation / adaptation scenario

Develop target scenario

- The target scenario will include mitigation/adaptation measures as have been identified

## 5. Define target scenario

Define target scenario

**Describe the expected development in the sector 2015-2030 if new or additional measures for adaptation/mitigation are implemented.**



## **Criteria for the mitigation/adaptation scenario**

- Contains predefined measures and policy options
- Is consistent with the baseline scenario regarding background information (assumed population growth etc.)
- Is based on available data

## **At the end of step 5**

The baseline scenario is developed:

- ✓ Agreed which policies & measures go into it
- ✓ Socioeconomic trends described
- ✓ Technological change/advances estimated
- ✓ Business-as-usual investments defined
- ✓ Exact model/spreadsheet to be used defined

# Q&A CLARIFICATIONS



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## 6. Derive I&FF for mitigation / adaptation scenario

- Derive annual IF & FF estimates, disaggregated by investment entity & source
- Derive annual O&M estimates, disaggregated by investment entity & source

## Example step 6: Energy sector

- Labeling the activities, measures and policies that are considered to go into the mitigation/adaptation scenario (step 5) with their costs
  - Changing energy mix to more renewables - label it with expected costs for power plants etc.
  - Raising awareness of energy users – label it with expected costs for awareness campaign
  - Putting into place incentive system to avoid emissions – label it with expected costs for implementation etc.

## Compile annual estimates, disaggregated by:

- Investment entity
    - households, corporations, government
  - Source
    - domestic equity, foreign debt, domestic subsidies, foreign aid
  - Investment flow type
    - facility/technology type 1, type 2...
  - Financial flow type
    - practice/measure type 1, type 2...
- ➔ Use data to the degree disaggregated as available

- Annual estimates of I&FF for the mitigation/adaptation scenario are derived
- As in the baseline scenario, costs should be
  - ▣ In real terms (ideally in constant 2015 US\$)
  - ▣ Discounted
  - ▣ Reported in the year in which they are expected to be incurred



# 6. Derive I&FF for target scenario

# Example- Target scenario water sector – annual flows

Year	(US\$ 2015)		
	Annual flows per measure		
	Measure: Flood management		
	Construction of larger dam (IF)	Education programme on flood risk (new programme) (FF)	O&M of the dam
2015			
2016			
2017			
2018			
2019			
2020	1500	100	
2021	1500	100	
2022	1500	100	
2023		100	100
2024		100	100
2025		100	100
2026		100	100
2027		100	100
2028		100	100
2029		100	100
...		...	...
2030		100	100
<b>Total (acumulated 2015-2030)</b>	<b>4500</b>	<b>2000</b>	<b>1700</b>

## 6. Derive I&FF for target scenario

# Example – Target scenario water sector – year 2010

Investment entity	Source of I&FF		Target scenario water sector								
			I&FF and O&M for the year 2010								
			Measure: Flood management								
			Investment 1 (expansion of existing investment): Construction of larger dam			Programme 1 (new): Education programme on flood risk			Total		
			IF	FF	O&M	IF	FF	O&M	IF	FF	O&M
Households	Domestic	Equity & debt									
Corporations	Domestic	Own capital									
		Domestic borrowing									
	Foreign	ODI									
		Foreign borrowing	1000						1000		
		External assistance									
Total Corporations											
Government	Domestic	Own capital (budgetary)					100			100	
		External borrowing									
	Foreign	External assistance	500						500		
		Total Government									
<b>TOTAL</b>			1500				100		<b>1500</b>	<b>100</b>	

## At the end of step 6

- ✓ Annual IF & FF estimated – each of the policies & measures of the baseline scenario is calculated
- ✓ Annual O&M costs estimated – for each of the investments the O&M costs are calculated

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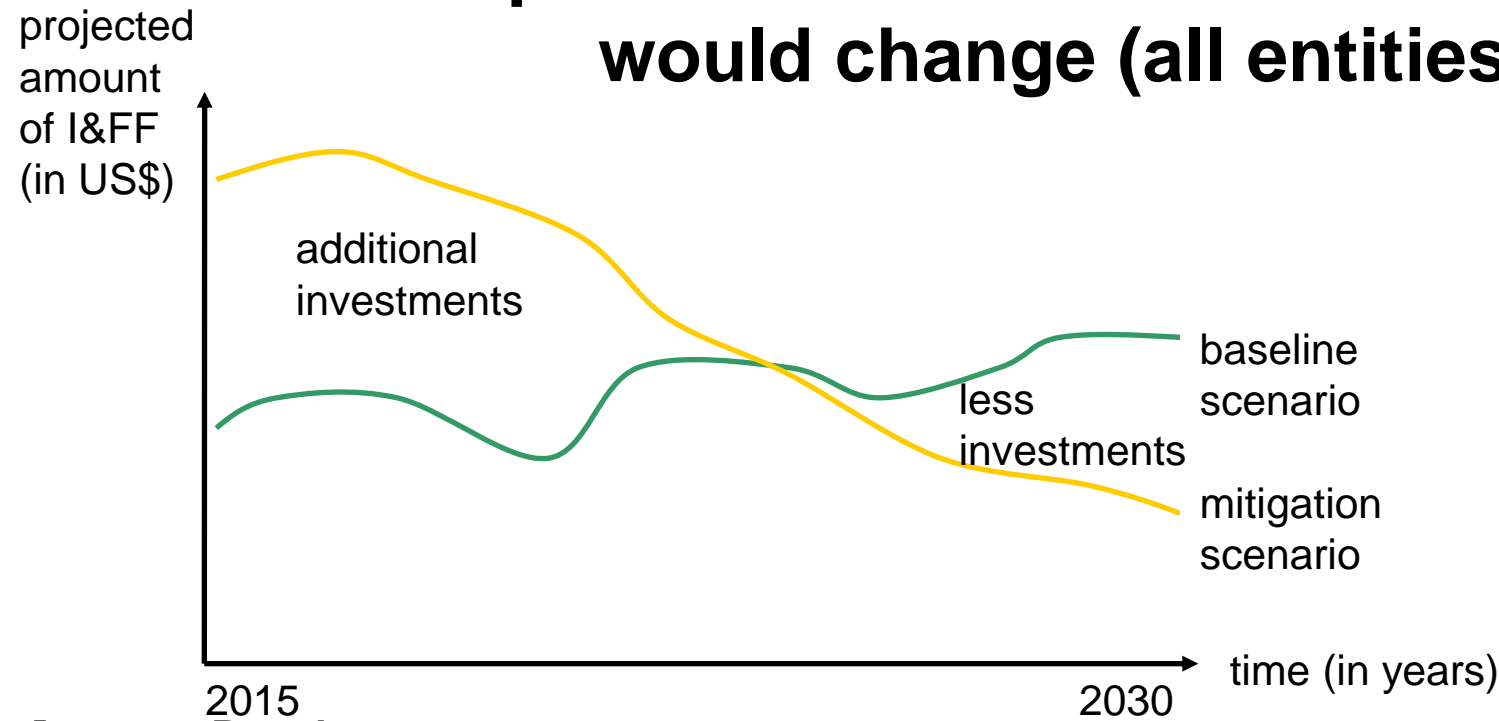
**Step 9: Synthesize results and complete report**

## 7. Estimate changes in annual I&FF needed to implement mitigation / adaptation

- Calculate changes in cumulative I&FF
- Calculate changes in annual I&FF

- Estimates the changes in I&FF needed to implement the mitigation (or adaptation) measures in the sector  
2 objectives
  - ▣ To determine how **cumulative** incremental I&FF would change
  - ▣ To determine how **annual** investments would change

## Example how **cumulative** incremental I&FF would change (all entities)



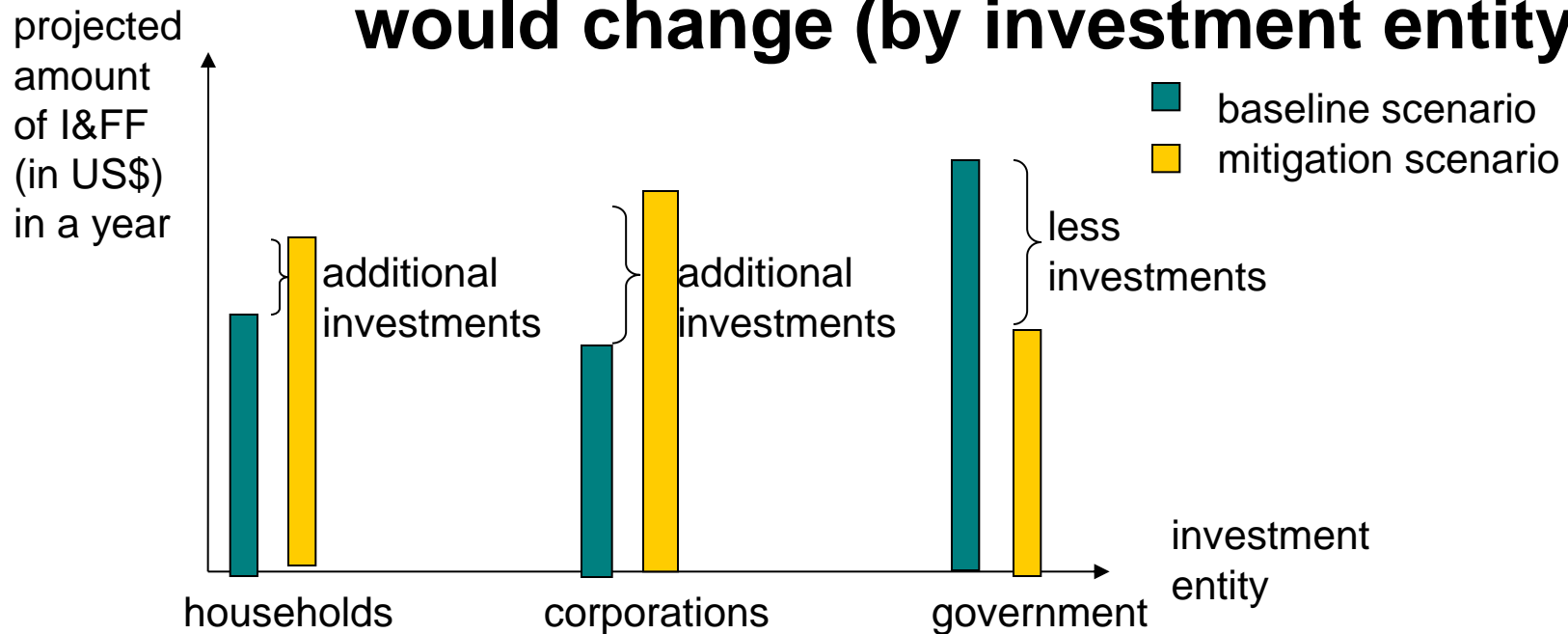
→ **Result:**

By the chosen time horizon (e.g. 2030)  
x (amount of money) needs to be invested  
x (amount of money) will be saved

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



## Example how **annual** investments would change (by investment entity)



**Result:**

- To reach the Mitigation scenario
- x (amount of money) less of this source needed
- x (amount of money) more of this source needed

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

## At the end of step 7

- ✓ I&FF of the baseline scenario subtracted from adaptation/mitigation scenario:
- ✓ Changes in cumulative I&FF estimated – per investment type & for all investment types
- ✓ Changes in annual I&FF estimated – per investment type, per source & per sector

# Q&A CLARIFICATIONS



**Step 1: Establish key parameters of assessment**

**Step 2: Compile historical I&FF data and other input data for scenarios**

**Step 3: Define baseline scenario**

**Step 4: Derive I&FF for baseline scenario**

**Step 5. Define mitigation / adaptation scenario**

**Step 6: Derive I&FF for mitigation / adaptation scenario**

**Step 7: Estimate changes in I&FF needed for mitigation / adaptation**

**Step 8: Evaluate policy implications**

**Step 9: Synthesize results and complete report**

## 8. Evaluate policy implications

- Determine policy instruments & measures to encourage changes in I&FF
- Identify the entities that are responsible for the significant incremental changes in I&FF
- Determine the predominant sources of their funds, important to distinguish between public & private sources of finance

## 8. Evaluate policy implications

Evaluate policy options

- Re-evaluate initial prioritization of mitigation/adaptation measures from step #5, based upon the incremental I&FF estimates
- Determine investment entities responsible for most significant changes in I&FF & predominant sources of funds
- Evaluate policy measures to implement proposed measures & to change investment patterns, & additional sources of funds

### At the end of step 8

- ✓ Policy instruments & measures determined to encourage changes in I&FF
- ✓ Former instruments & measures re-evaluated
- ✓ Entities responsible for incremental changes in I&FF identified
- ✓ Predominant sources of their funds determined

# Q&A CLARIFICATIONS





**Step 1: Establish key parameters of assessment**

**Step 2: Compile historical I&FF data and other input data for scenarios**

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**Step 8: Evaluate policy implications**

**Step 9: Synthesize results and complete report**

## 9. Synthesize results and complete report

- Integrate I&FF results, & evaluation of policy instruments & measures, across sectors, & across mitigation & adaptation
- Summarize objectives of study, methodology, inputs, & results in report
- Complete reporting templates

- Sectoral results are compiled so that mitigation/adaptation investments for each source & investment entity, & for each year, can be compared across sectors & across mitigation/adaptation
- “Reporting Guidelines for the Assessment of Investment & Financial Flows to Address Climate Change” contains spreadsheets for this
- Define purpose & target group to prepare report accordingly

## Incremental **Cumulative** I&FF for All Investments in All Sectors

Category of Investment Entity	Source of I&FF Funds		Incremental Cumulative (2015-2030) Total I&FF (million 2015US\$)			
			Mitigation		Adaptation	
			Energy	Forestry	Forestry	Public Health
Households	Domestic	Equity & debt				
		Government support (subsidies)				
	Total Household Funds (all domestic)					
Etc...						

9. Synthesize results  
and complete report

Complete reporting templates

## Incremental **Annual** I&FF for All Investments in All Sectors

Year	Incremental Annual Total I&FF (million 2015US\$)			
	Mitigation		Adaptation	
	Energy	Forestry	Forestry	Public Health
2015				
2016				
Etc...				

## **Documentation & Reporting during the assessment**

Report will be used for

- 2<sup>nd</sup> national workshop
- Further follow up activities
- Note: Possible different audiences & different uses of report

## **At the end of step 9**

- ✓ I&FF results, policy instruments & measures integrated across sectors
- ✓ Reporting of the I&FF assessment completed regarding objectives, methodology, inputs & results

# ACLARACIONES Y SESIÓN DE PREGUNTAS Y RESPUESTAS





# PERSPECTIVES AND NEXT STEPS



# Going forward



## What next?

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

# ANALYSIS OF I&FF RESULTS

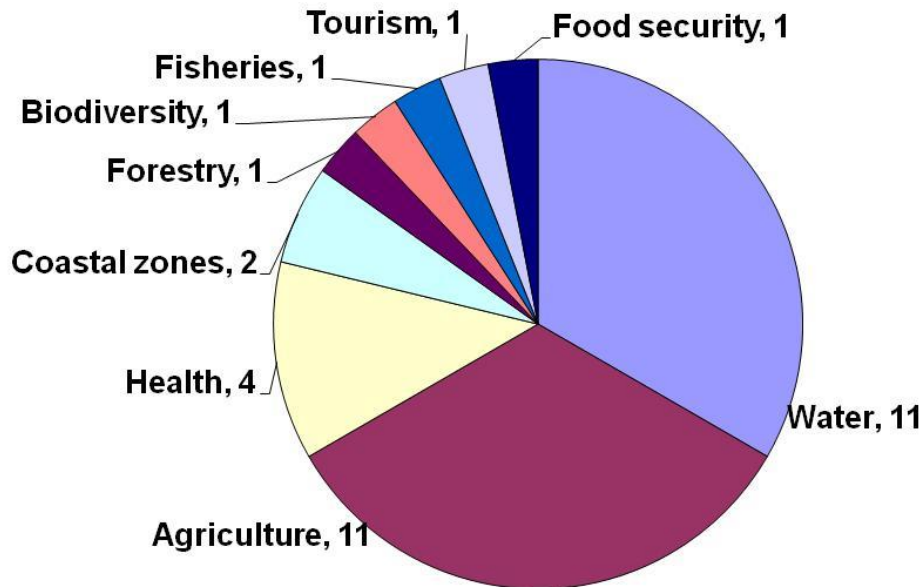


# Key sectors identified for I&FF assessments

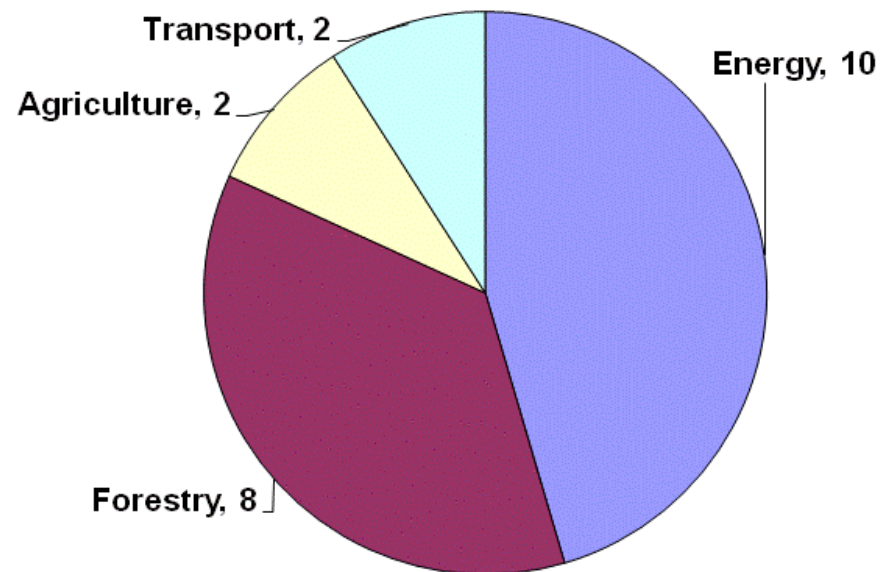


*Empowered lives.  
Resilient nations.*

**Figure 1: Number of countries selecting sector for an I&FF assessment for adaptation**



**Figure 2: Number of countries selecting sector for an I&FF assessment for mitigation**



# Overview: Results by sector



*Empowered lives.  
Resilient nations.*

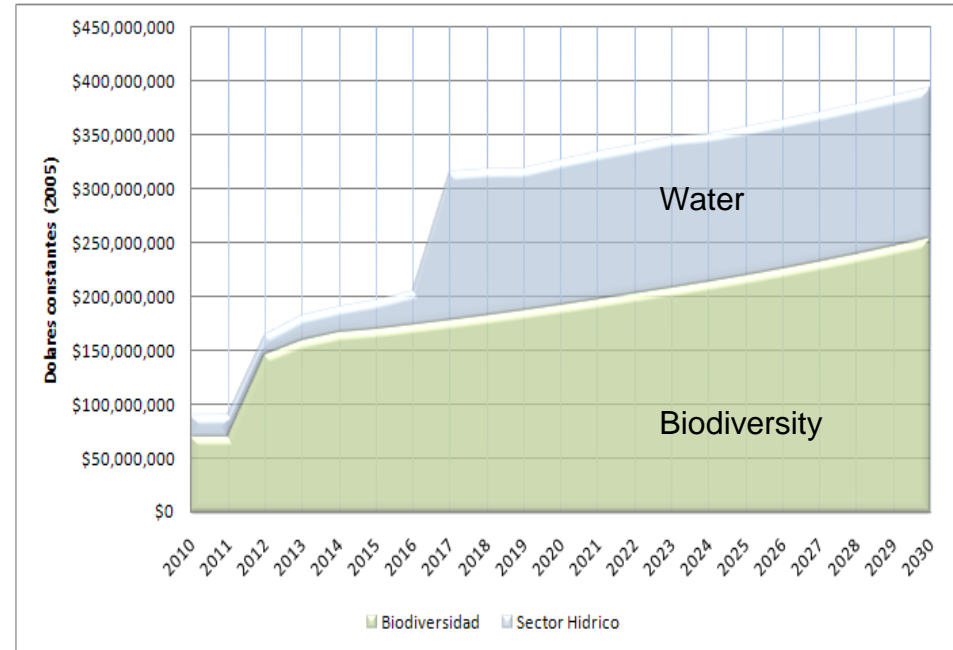
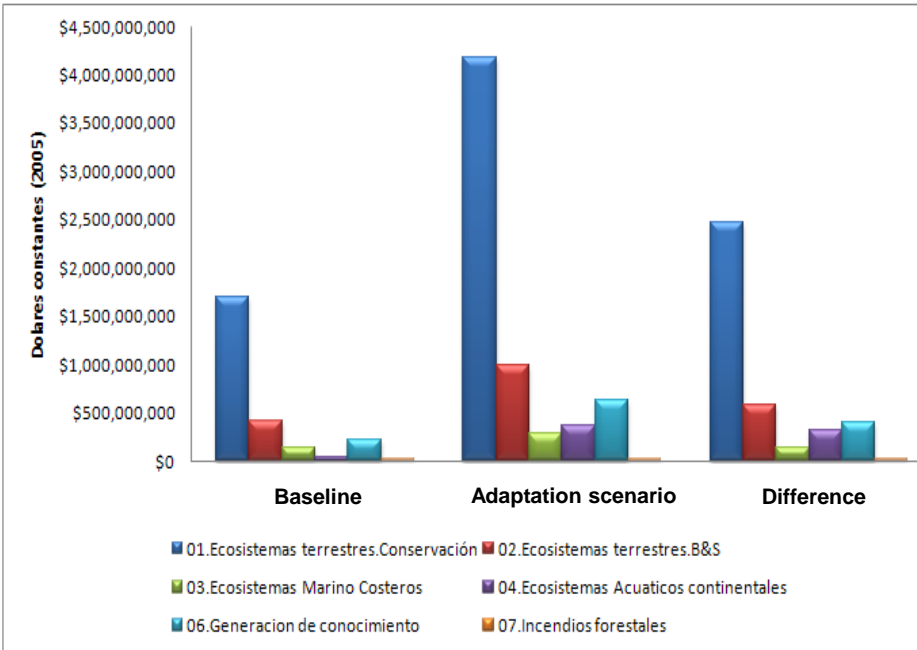
SECTOR*	COUNTRY	MEASURES	ANNUAL INCREMENTAL COST (MILLION US\$)
Water (A)	Bangladesh, Costa Rica, Dominican Rep. Gambia, Honduras, Peru, Turkmenistan	Water supply & sanitation, efficient irrigation, erosion & flood control, implementing water law, rainwater harvesting...	-0.1 (a net saving!) (Gambia)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

\* A = adaptation

# Examples from Costa Rica

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

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



## Examples of impacts on the ground

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- **Dominican Republic:** Government maintained the inter-ministerial review committee established for the I&FF assessments; it is now supporting development of CC policy
- **Turkmenistan:** Environmental standards for energy efficiency and improved water management are being integrated into the legislative framework as result of I&FF recommendations
- **Bangladesh:** I&FF provided baseline information for climate public expenditure & investment review
- **Niger:** I&FF results have been incorporated into National Action Plan for Climate Change and National Development Plan
- **Togo:** National climate change negotiators and parliamentarians were briefed on the I&FF results and political implications
- **Paraguay:** I&FF results feeding into national CC policy and national mitigation plan

# Q&A CLARIFICATIONS

