CAPACITY DEVELOPMENT FOR POLICY MAKERS TO ADDRESS CLIMATE CHANGE

The UNDP Investment & Financial Flows Methodology – a tool for decision-makers

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INTRODUCTION TO UNDP's I&FF METHODOLOGY

What does a national I&FF assessment seek to answer?

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The I&FF assessment considers:

- What are the **adaptation/ mitigation options** for selected key sectors in the next 20 years?
- Who is investing in the sectors? Who are the major **players & funding sources**?
- What **shifts and/or increases** in investments will be needed in the key sectors?
- What will be the overall needs for **additional investments** to address climate change?

How is an I&FF assessment undertaken?

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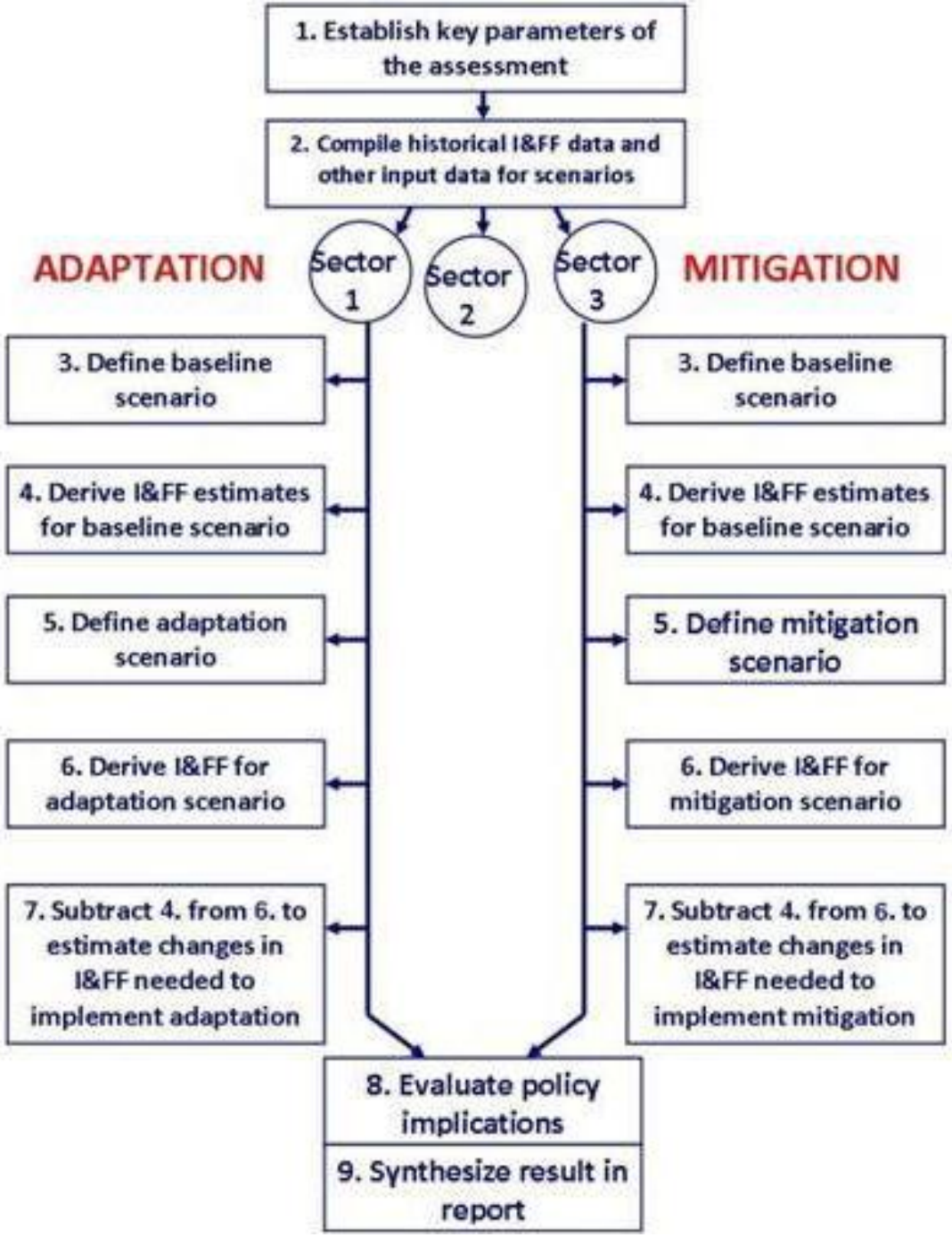
1. **For each sector, evaluate investments and financial flows for two policy scenarios:**
   - Baseline scenario
   - Adaptation or mitigation scenario

2. **Cost the additional flows needed to implement new adaptation or mitigation measures** (that is, subtract the difference between the two scenarios)

3. Break the costs down across three entities: **government, corporations (including NGOs), and households**



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Examples from Costa Rica

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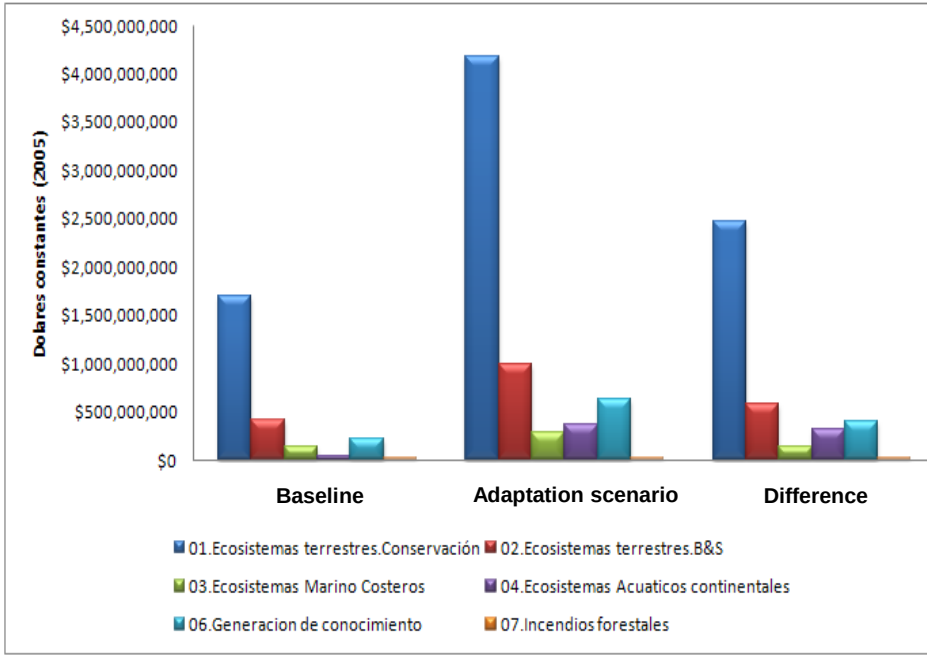
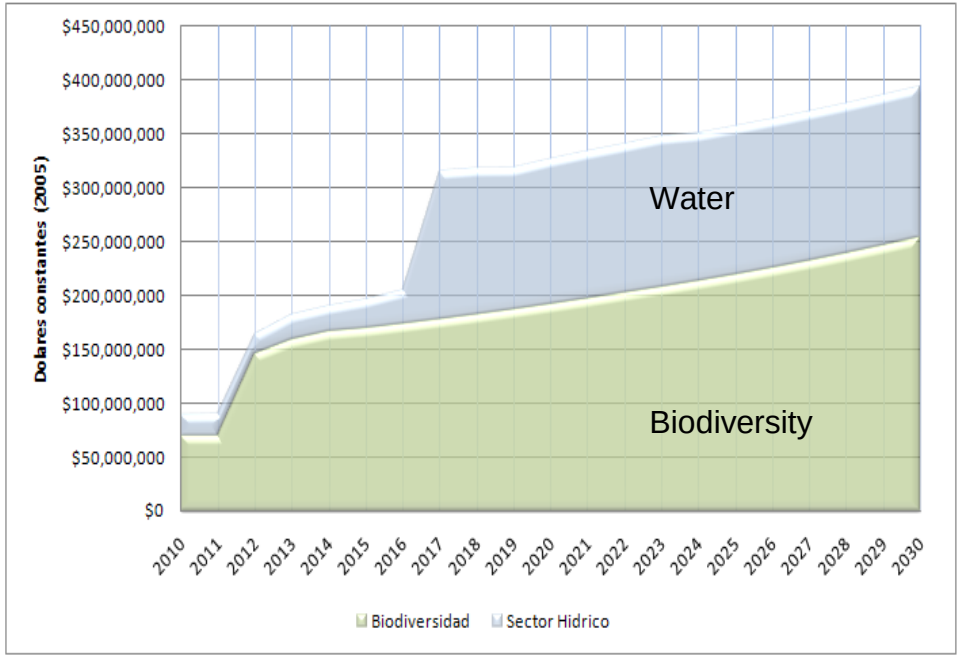
Total cumulative sum of investments (2010-2030) in biodiversity sector, by investment type



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



Key features of UNDP's I&FF approach

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- **Robust methodology** - provides detailed, transparent, and flexible step-by-step assessment of country needs at sectoral level
- **Bottom-up approach** – scaleable, sectoral assessments by countries
- **Development-oriented** - Articulates needs in systematic way; based on their national development and poverty reduction priorities
- **Country-led** – All aspects are country defined, implemented, and owned
- **Participatory** - Approach requires inter-ministerial, cross-sectoral participation to be successful; private sector and NGOs also have role to play

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ANALYSIS OF I&FF RESULTS

Key sectors identified for I&FF assessments

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

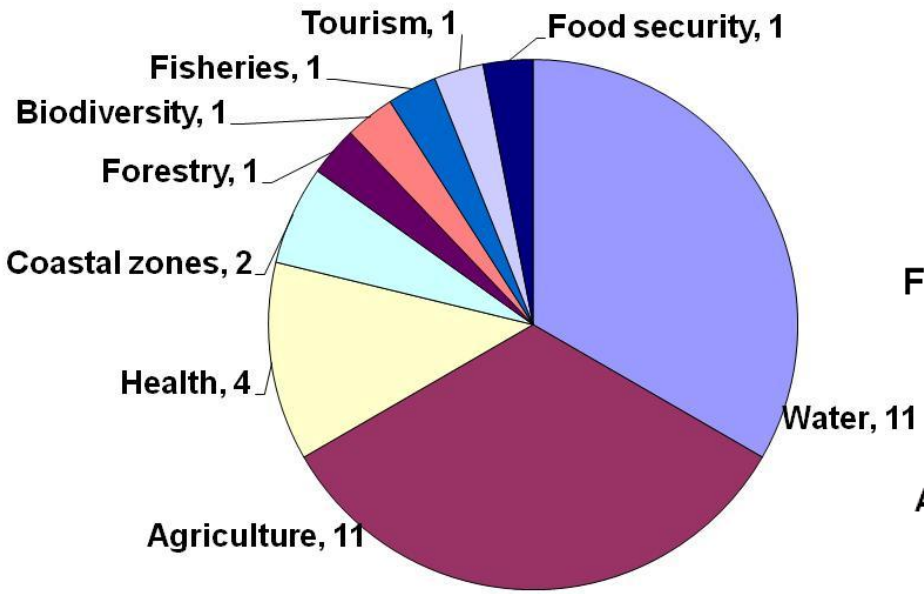
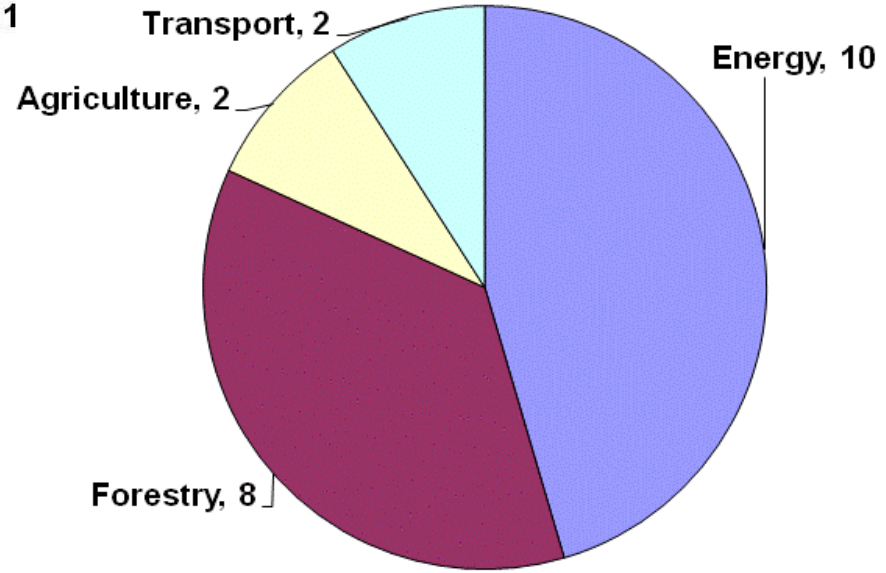


Figure 2: Number of countries selecting sector for an I&FF assessment for mitigation



Overview: Results by sector

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SECTOR*	COUNTRY	MEASURES	ANNUAL INCREMENTAL COST (MILLION US$)
Energy (M)	Bangladesh, Dominican Rep. Gambia, Liberia, Namibia, Togo, Turkmenistan, Uruguay	Renewable energy, energy efficiency, transmission & distribution, modernizing power plants…	20 (Gambia) – 950 (Bangladesh)
Transport (M)	Ecuador, Honduras	Transportation plan, filters in engines, emission control centres…	60 (Honduras) – 120 (Ecuador)
Forestry (M)	Ecuador, Gambia, Honduras, Liberia, Niger, Paraguay	CO2 capture through afforestation & reforestation, institutional strengthening…	5 (Paraguay) – 150 (Honduras)
Agriculture (A/M)	Bangladesh, Colombia, Ecuador, Gambia, Liberia, Namibia, Niger, Paraguay, Peru, Togo, Uruguay	Resistant livestock species & crops, early warning systems, restoration of soil quality, capacity building…	0.6 (Gambia) – 1890 (Bangladesh)

*** M = mitigation; A = adaptation**

Overview: Results by sector

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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**

Takeaways: view I&FF results in context

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- The I&FF assessments are not a mere costing exercise, but an analysis of the **whole financial landscape** of a sector

- All countries used same I&FF methodology, but decided individually what sectors to select and what measures to analyze within each sector ➔ **scope (and discount rate) has impact on amount of funds estimated,** e.g. The Gambia analysed 4 measures in the agriculture assessment, while Bangladesh analysed 17

- **Results comparable** with those of World Bank *(Economics of Adaptation to Climate Change)* and UNFCCC *(National Economic, Environment and Development Study (NEEDS))*

Takeaways: Sectoral considerations

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- **Savings from implementing climate change measures are possible:** these are mostly found in energy mitigation as a result of reduced operation & maintenance costs

- There is a **large span of incremental I&FF estimates** within the same sector for different countries, depending on national context, country size, sectoral scope, number of measures analysed, discount rate used, etc.

- Incremental costs may seem large in cases, but must be considered within **context of planned baseline expenditures**, e.g. in San Martin, Peru, the baseline scenario for agriculture was estimated at US$5,435 million, while the adaptation scenario was US$ 5,759 million ➔ incremental cost is US$324 million (6% difference)

Takeaways: policies are key aspect

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- Some measures result in net savings, *e.g. in Namibia, replacing diesel generators with solar power in off-grid communities would generate $US 1,124 million in savings (due to low O&M), but solar has higher upfront cost* ➔ **low-hanging fruit for policy makers?**

- In many cases, the assessment results show that shifts in investments are necessary, e.g. from one technology to another, or one subsector to another, while **additional** incremental investments are required

- In *Dominican Republic*, selected mitigation measures in electricity subsector require $5.82 billion of investments, but generate $16.12 billion in savings (from O&M)
  ➔ **what policy/ incentive mix would encourage uptake of these mitigation/adaptation measures?**

Examples of impacts on the ground

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- In **Dominican Republic**, the government maintained the inter-ministerial review committee established for the I&FF assessments; it is now supporting development of CC policy
- In **Turkmenistan**, environmental standards for energy efficiency and improved water management are being integrated into the legislative framework as result of I&FF recommendations
- In **Bangladesh**, I&FF provided baseline information for climate public expenditure & investment review (OECD/ADB/UNDP)
- In **Niger**, I&FF results have been incorporated into National Action Plan for Climate Change and National Development Plan
- In **Togo**, national climate change negotiators and parliamentarians were briefed on the I&FF results and political implications
- In **Paraguay**, I&FF results feeding into national CC policy and national mitigation plan (via *Climate Policy 2012* project)