

Funding Needs for Mitigation

Seminar on International Climate Finance

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Incremental Costs of Mitigation

UNFCCC Article 4.3 – developed countries commit to provide financial resources to cover “agreed full incremental costs” of mitigation measures implemented by developing countries

Agreed full incremental costs is not defined

Growing number of estimates of incremental investment and incremental cost of mitigation measures

Methodology

Methodology is conceptually simple:

- Prepare BAU scenario and estimate investment/cost
- Select mitigation measures and estimate associated investment/cost
- Difference is the incremental investment/cost

Estimates sensitive to inter alia the BAU projection, reduction target, mitigation measures considered, technological change assumed, time period, discount rate, level of aggregation.

Hence estimates vary widely

Investment vs Cost

Incremental investment = Initial capital cost of mitigation measure – initial capital cost of BAU

Is simple and is often the basis for incentives

Incremental cost also needs information on lifetimes and operating costs of BAU and mitigation measures and discount rate assumption

Some mitigation measures – agriculture, REDD+ – need little incremental investment

Many – energy efficiency, renewables – have lower operating costs so incremental cost much less than incremental investment

Developing Country Estimates

Estimates of incremental **investment** needed for mitigation in developing countries in 2030 range from USD 177 to 565 bn/yr (2005\$)

Two estimates of incremental **cost** of mitigation in developing countries in 2030 – USD 139 and 175 bn/yr (2005\$)

Amounts tend to increase over time – BAU emissions rise and targets become more ambitious

Country Estimates

Growing number of country estimates – 17 different countries in Tables 3 and 4 – now about 50 countries (mainly UNDP)

Most cover only a few sectors. Time periods differ. Discount rates vary. Many do not report incremental investment.

For most countries estimated incremental **cost** is less than USD 1 bn/yr, consistent with global estimates

Sectoral Estimates

A few sectoral studies are available:

- Energy sector investment (IEA)
- Non-CO₂ marginal abatement cost curves (US EPA)
- Industrial process emissions (WBCSD)

Several estimates for REDD+; different time periods and different targets. Incremental **cost** ranges from USD 3 to 65 bn/yr

Financial Support Needed

“Agreed full incremental cost” NOT equal to incremental investment or incremental cost.

Incremental investment ignores operating savings, but excludes measures that need little capital

Measures with negative incremental cost still may need incentives to promote adoption

Totals are often “net” amounts, savings may not be available to entities implementing measures

Summary

A growing number of estimates of incremental investment and incremental cost

Increasing detail by country and sector

Estimates sensitive to numerous assumptions, so range is wide

Incremental cost generally much lower than incremental investment

Both inform but neither is equal to financial support needed

Thank you!

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