

Using cost effectiveness analysis to maximise the impact of climate investments

Global spending on climate change should increase to over \$4 trillion per year by 2030 to fund the transition required to keep temperature rises to 1.5°C, according to a 2021 report by environmental think tank Climate Policy Initiative¹. This represents an increase of almost 600% in climate finance globally. As investors dedicate a larger proportion of their resources to climate change ventures, **ongoing analysis of which investments yield the greatest impact for a given sum is critically important**. Indeed, funders are increasingly interested in carrying out structured assessments to support the quantification of the impacts of their climate investments.

One way of assessing the impact of climate investments is by applying a cost-effectiveness analysis (CEA), which is an economic assessment methodology to estimate the ratio of impact achieved by an intervention compared to the cost incurred. Cost-effectiveness (CE) for climate investments is calculated as cost per unit outcome, where the total expected benefit of the intervention is measured in GHG emission reductions achieved. This assessment is particularly useful when investors go through the process of setting the priorities of an intervention, to understand the interaction of investment portfolios, when there are several options for funding mechanisms and to prioritise actions when there is a significant level of uncertainty.

However, **the estimation of the GHG emission reductions achieved by a significant number of climate investments is particularly challenging**. Interventions aimed at providing technical assistance, building capacities and supporting advocacy or litigation actions such as those made by major philanthropies, are harder to estimate than interventions such as the installation of energy efficiency technology at a power plant where emissions can be quantified and/or monitored before and after the installation. As a result, the cost-effectiveness of climate investments based on soft measures is rarely estimated.

To support funding bodies in the evaluation of their climate investment opportunities, **the Logika Group have the required expertise and skills to develop and implement bespoke methodologies on cost-effectiveness and cost-benefit analysis to assist the process of identification of investments with a high climate mitigation impact**. In 2021, we delivered a bespoke tool to help calculate the cost-effectiveness of climate investments for a major philanthropic body. The methodology behind the tool was designed to enable the cost effectiveness (CE) of investments to be evaluated both where quantitative estimates of the attributable GHG emission reductions are available and – in a substantial number of cases - where they are not (or at least not yet available with a reasonable level of certainty).

The methodology was designed to assess investments before they take place (ex-ante), as they are being considered for funding support. However, it can also be used after the investment took place (or during implementation at regular interval as monitoring data emerges), as part of the evaluation process and/or as key input information changes. It is important to consider that measuring the impact of climate investments based on soft measures is a complex task and hence, any such assessment carries a degree of uncertainty. The availability of information on the intermediary outcomes of the investment, plays an essential role during the evaluation process. The methodology developed by the Logika Group uses information such as the size of the cost relative to previous investments, the reduction potential, additionality and contribution of the investment to emissions reduction to assess cost effectiveness.

¹ <https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2021/>

Cost Effectiveness Analysis for Climate Investments

Until now, very few funding bodies have been able to provide a structured analysis to estimate the cost-effectiveness of their investments. **The cost-effectiveness methodology described here represent a one-of-a-kind tool for funders to achieve the goal of identifying the most impactful climate investments.**

To prepare for the drastic action needed to keep the temperature rise to 1.5°C, a higher priority should be placed on the ex-ante cost-effectiveness analysis of climate investments. This will enable funding bodies to better understand how to make the best use of the funds available, resulting in more effective strategies and yielding substantial and faster gains in emissions mitigated, at a lower cost. The outputs from these evaluations can be made publicly available to expand knowledge transfer and increase quality through independent scrutiny.

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