Climate & Development Knowledge Network

SPECIAL ISSUE

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Regional implications of the AGF recommendations: Small Island Developing States

Key messages

- The climate-investment requirements of the SIDS will primarily need to be met through grants from public sources, although private sources can complement these.
- The report's emphasis on raising revenues in a way that creates incentives for developed countries to reduce their emissions is welcome, but introduces risks concerning the reliability of revenues. These risks can be relieved by robust, credible commitments by developed countries to reduce their emissions.
- SIDS may be concerned that the levies on international transport, which the AGF report emphasises, could impede their development. But the report also recognises the importance of compensation for any negative effects.
- SIDS will want to ensure that climate finance is disbursed according to need and not according to existing aid patterns.

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The Advisory Group on Climate Finance (AGF) was set up in February 2010 to identify an additional US$100 billion in climate finance. Its recent report concluded that finding the extra money was "challenging but feasible"[1]. The AGF report offers many opportunities for Small Island Developing States (SIDS) to facilitate their climate compatible development – development that minimises the harm caused by climate impacts while maximising the human development opportunities presented by a low emissions, more resilient future.

However, turning the AGF recommendations into tangible flows of new finance will require political leadership at a senior level. This report aims to alert senior policy-makers to the importance of the AGF recommendations and the opportunities (and risks) they create for SIDS.

This report was written by Vivid Economics and funded by the Climate and Development Knowledge Network (CDKN). It was requested by AGF members to help developing country decision-makers to respond to the AGF's recommendations. The Office of the President of the Republic of Guyana played a particular role in supporting this report, and provided a valuable regional review. CDKN would also like to thank the other reviewers who contributed their time and valuable insights to help shape this series of regional briefing reports.

The AGF report

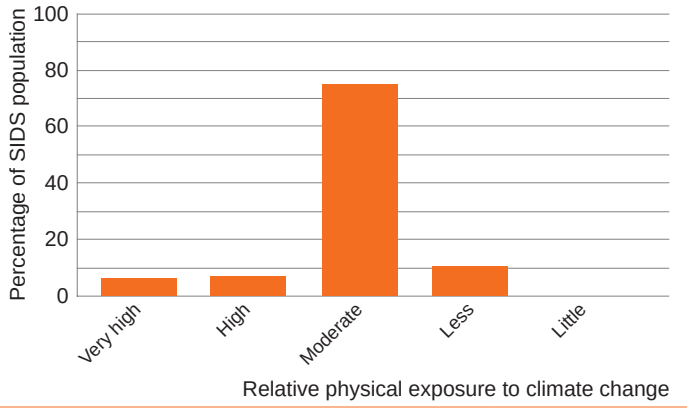
Building on the Copenhagen Accord, the United Nations Secretary's High-Level Advisory Group on Climate Change Finance (AGF) was set up in February 2010 to identify how industrialised countries could mobilise US$100 billion of resources per annum by 2020, to support climate-resilient development in the developing world. The Group consisted of 21 members, from the public and private sectors and from the developed and developing worlds. It was co-chaired by the Meles Zenawi, Prime Minister of Ethiopia, and Jens Stoltenberg, Prime Minister of Norway. Working through most of 2010, it has analysed a wide range of options for raising this money from both public and private sources. The AGF reported in November 2010 that reaching the goal of US$100 billion was "challenging but feasible".

Table 1: A climate change profile of Small Island Developing States

Climate exposure profile

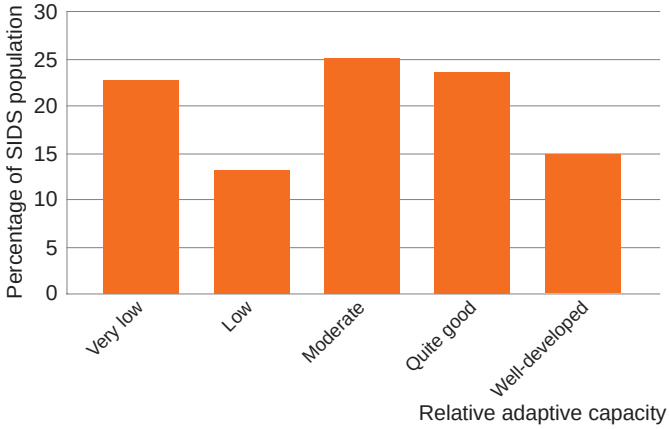
Physical exposure

The majority of people living in SIDS are moderately exposed to climate change. Some SIDS, however, are highly vulnerable to climate change; Guinea-Bissau, Guyana and Suriname are among the most exposed countries in the world. No SIDS fall within the class of developing countries least exposed to climate change.



Adaptive capacity

The SIDS show considerable diversity in terms of adaptive capacity (the ability to respond to the physical impacts of climate change, to reduce its social and economic consequences). Guinea-Bissau and Haiti have very low adaptive capacity, while Singapore has a high adaptive capacity.



Emissions profile

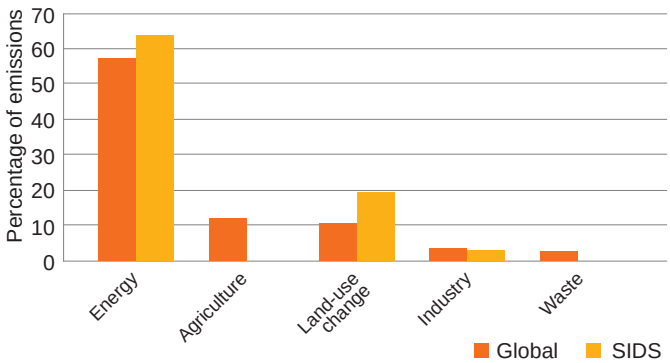
Contribution to global greenhouse gas emissions (CO_2e)

SIDS contribute a negligible amount to global emissions, and an even smaller proportion when historic emissions are considered. They are responsible for very little of the recent growth in emissions. There may, however, be some opportunities to pursue further low-carbon growth; emissions are currently around 5.1 tonnes of CO_2 equivalent per person (tCO_2e) per year. This is around twice the level that is likely to be required to limit global warming to a 2°C temperature rise.

Share of global emissions (2005)	0.6%
Contribution to growth in emissions 1990–2005	0.7%
Emissions per capita (tCO_2e)	5.1

Sectoral breakdown

Although data are incomplete, SIDS have an emissions profile across sectors that broadly compares to the world average. SIDS have slightly higher emissions from energy and land-use change than average, and no reported emissions from the agriculture sector.



Source: Barr, Fankhauser and Hamilton, 2010[2]; WRI CAIT v7.0[3]; Vivid Economics

Climate change investment requirements

How much investment do SIDS need and in what areas?

The World Bank[4] estimates that adaptation costs in SIDS will be around US$3 billion per annum by 2030. This equates to about 2.5% of the gross domestic product (GDP) of SIDS. Outside of low-income countries in the group, adaptive capacity is reasonably well developed in some SIDS (see Table 1). The focus will therefore shift fairly quickly from capacity building to actual adaptation measures. The same World Bank study estimates that about 75% of the funds needed by 2030 will be spent on coastal protection; the bulk of the remainder will be required for adaptation in the agriculture and fisheries sectors.

There is limited information on the potential for cost-effective emissions reduction in SIDS or the investment required to realise this; we estimate that around US$2–2.5 billion of investment per year may be needed. Given the negligible contribution of SIDS to global emissions, mitigation investment is likely to be low. However, some SIDS have excellent renewable resources that they have already begun to exploit, and many are seeking to further this. Fiji generates more than 50% of its electricity from renewable sources; The Maldives has announced its commitment to achieve a carbon-neutral energy sector by 2020 and to halve greenhouse gas emissions by 2015. Nicholas Stern[5] estimated that annually, 1–2% of global GDP will need to be invested in reducing emissions in the medium term. Applying this percentage to the SIDS suggests they will require an annual mitigation investment of US$2.3–4.6 billion[6]. Given the low emissions within most SIDS, a figure towards the lower end of this range seems plausible.

Current financial resources for climate investment are clearly inadequate. Estimates suggest that SIDS will require US$3 billion for adaptation each year; but between 2003 and 2010, the cumulative disbursement for adaptation from climate funds was around US$50 million. Cumulative mitigation investment over broadly the same period has been less than US$350 million, well below the estimated annual requirement of around US$2 billion[7].

What sort of funding do SIDS need?

Adaptation investment will mainly be met through grants from public sources. Most adaptation investments in SIDS will be in projects that will not generate returns for the private sector, for example building flood defences and improving land-use planning. These will therefore be implemented predominantly by the public sector. International support should come in the form of new and additional grants, given there is an international commitment to support adaptation in particularly vulnerable countries. Some higher income SIDS may also use their own resources, or borrow from multilateral banks, to accelerate and deepen adaptation investments. In less well-developed SIDS, adaptation grants may be combined with official development assistance (ODA) to build basic adaptive capabilities.

There will be opportunities to engage the private sector to meet adaptation needs, especially in providing insurance against events linked to climate change. There may also be opportunities to engage the private sector in SIDS: examples such as the Caribbean Catastrophe Risk Insurance Facility show how private-sector insurers, in partnership with the public sector, can help countries to manage and transfer the risks associated with extreme events.

SIDS have an opportunity to attract private-sector capital flows for mitigation investment, but they are likely to require concessional public support as well. As noted above, many SIDS have excellent renewable resources which have the potential to engage private capital, including through international carbon markets. However, the private sector is unlikely to meet all of the investment needs of SIDS. SIDS have just over 1% of Clean Development Mechanism (CDM) market potential, but they are expected to only account for 0.35% of the CDM market up to 2012[8]. SIDS outside of the Caribbean have only two registered CDM projects. SIDS are also likely to need concessional public finance – to improve the business environment, to make direct investments, and to leverage private-sector investment in specific projects.

Table 2 (on page 4) summarises the investment needs, priority investments and types and sources of finance for SIDS.

Opportunities provided by the AGF recommendations

Public sources

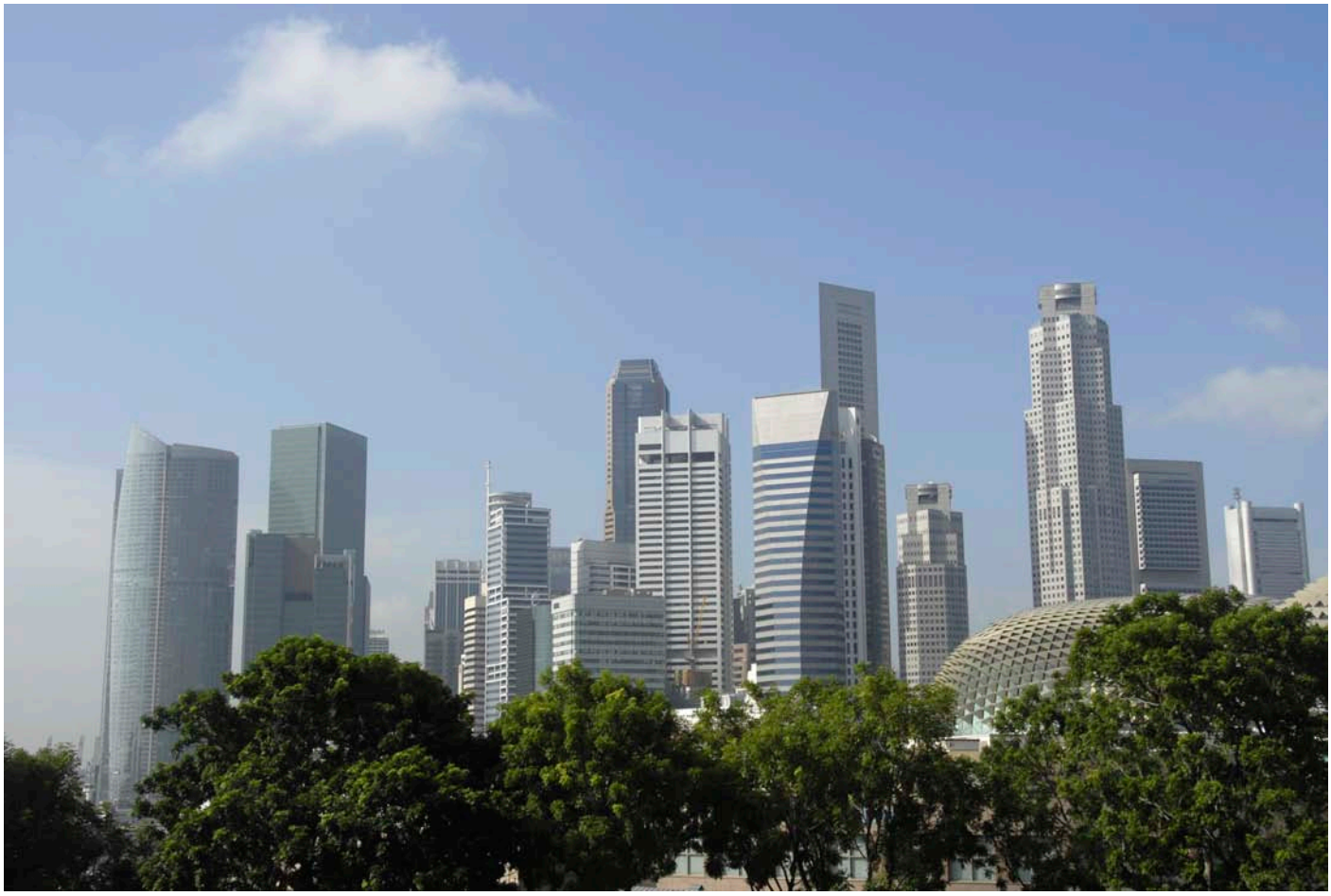
The AGF report emphasises three potential public funding instruments.

- *Auction emission allowances in developed countries/ new carbon taxes*. Under the Kyoto Protocol arrangements, developed countries have their emission targets expressed as Assigned Amount Units (AAUs). To date, AAUs have been provided to countries for free. This proposal would involve countries paying for a proportion of these allowances and the money being committed to international climate finance[9]. An alternative arrangement, which would have a similar effect, would be to introduce a carbon tax in the developed world. The AGF report suggests that this could raise about US$30 billion annually.

Table 2: Climate change investment needs in Small Island Developing States by 2030

Investment type	Possible amount required (annual, US$)	Priority investments	Type and source of finance
Adaptation	3 billion	• Sea defences • Agriculture and fisheries • Soft adaptation measures, for example improved land-use planning • Build adaptive capacity in LDCs	• Grants from public revenue sources • Own resources / lending from multilateral development banks, especially for more developed SIDS
Mitigation	2 billion	• Exploit renewable resources	• Private flows, including through carbon markets • Concessional public finance

Source: World Bank, 2010[10]; Stern, 2009[11]; World Development Indicators[12]; Vivid Economics



Singapore accounts for more than 5% of global foreign currency transactions, and will have concerns about the proposed financial transactions tax.

- *Redirect fossil fuel subsidies*. These policies would mean developed countries no longer subsidise fossil fuel production and consumption, and divert the revenues saved to international climate finance. The report estimates that this may raise US$10–15 billion per year[13].
- *Carbon pricing of international transport*. This would involve a fuel levy or an emissions trading scheme in the international aviation or maritime sectors, with a proportion of the allowances in the scheme being auctioned. Alternatively, an international ticket tax (a tax paid on each ticket sold) could be introduced in the aviation sector. The report estimates that this could generate around US$10 billion per year (after adjusting for any incidence on developing countries).

The high revenue potential of these alternatives makes them attractive sources of public revenue for SIDS. Further, they will all create financial incentives for developed countries to reduce emissions. Indeed, one of the key themes throughout the report is the importance of a high carbon price in developed countries to both generate substantial financial flows and, in the medium term, substantially reduce emissions. Given the acute exposure of SIDS to the impacts of climate change, this is welcome.

The emphasis on auctioning emission allowances and redirecting fossil fuel subsidies/revenues is also attractive as these are unlikely to have a negative incidence in SIDS. Auctioning emission allowances in developed countries represents a tax on emitting in these countries, while diverting fossil fuel subsidies would be a transfer from developed-world taxpayers to SIDS.

The AGF report recognises that "grants and highly concessional loans are crucial for adaptation in the most vulnerable developing countries"; this is very important for SIDS. This concurs with the analysis above, and it is important that this recognition is implemented, given the SIDS' high adaptation needs.

Private sources

The AGF report notes that enhanced private flows will be essential for economic transformation towards low-carbon growth. Adaptation investment will remain the short-term priority for SIDS, as there is less scope for intervention by the private sector. Nonetheless, as previously mentioned, one of the key opportunities for SIDS will be to engage private-sector insurers to help allocate and manage the risks associated with climate change.

The report recommends that "carbon markets are further strengthened and developed". This provides an important opportunity for SIDS to attract private-sector capital. The report projects that globally the offset market will abate 1.5–2 gigatonnes of carbon per year, with as much as US$120–150 billion of associated investment. This implies an ambitious level of mitigation by developed countries: these projections suggest that the offset market in 2020 will be five to seven times its 2009 size[14]. Many SIDS have renewable resources; strengthening the carbon market will create further opportunities to attract private-sector capital from renewable energy companies and/or investor organisations and carbon-finance organisations specialising in this area. However, making carbon markets work for SIDS may require regulatory reform to encourage smaller projects within the CDM. For several SIDS, such as Guyana, it will be crucial to successfully incorporate emissions from land-use change and deforestation into the carbon market.

Throughout the SIDS, private-sector investment can also be promoted through public finance mechanisms, which reduce the risks faced by the private sector. These could be provided either by the World Bank or by the regional development banks operating within SIDS, such as the Caribbean Development Bank.

Governments in SIDS can further facilitate private-sector investment. They could initiate several policies, potentially with financial support from the developed world, to increase low-carbon investment by the private sector. These include policies to improve the investor climate and the establishment of Nationally Appropriate Mitigation Actions.

Challenges from the AGF recommendations and possible responses

The key challenge for SIDS will be ensuring that the positive opportunities identified by the AGF report gather momentum and ultimately result in the generation of the estimated financial flows. There are many steps to take before the scale of financial resources that the report envisages can be mobilised. These include agreeing appropriate finance sources, developing clear and practical recommendations to mobilise these resources, and achieving consensus on the arrangements for disbursing climate finance.

Another priority is to understand the scale of appropriate compensation for any negative impacts from taxing international transport. It is plausible that satisfactory compensation arrangements can be devised. Despite their remoteness, many SIDS are highly dependent on international trade – the sum of merchandise imports and exports into and out of SIDS is 1.5 times greater than the size of their economies[15]. Tourism is also a crucial economic sector in many SIDS. They are therefore exposed if international transport levies increase the cost of trade and travel.

The AGF report notes the need to compensate SIDS (and other developing countries) for any negative impacts from these. However, the arrangements by which compensation is delivered still need to be designed. Airlines registered in SIDS account for less than 2% of global air passengers and less than 6% of air freight movements, and less than 8% of container traffic movements take place in SIDS. It seems plausible therefore that sufficient revenues can be raised to compensate SIDS for any negative impacts, while retaining sufficient revenues for international climate finance[16].

Some SIDS will have similar concerns about the proposed financial transaction tax. Notably Singapore, which alone accounts for more than 5% of global foreign currency transactions. In many other SIDS, the impact of such a tax will be immaterial. However, the AGF report places lower emphasis on this revenue source compared to others.

A key challenge for SIDS will be to ensure that revenues from carbon-based sources of finance are reliable. Like other commodities, the price of carbon is volatile, and policy influences can accentuate this volatility. SIDS will want to ensure that the report's emphasis on carbon-based

Tourism is vital to SIDS, and they will need compensation for any negative impacts caused by proposed transport levies.

mechanisms does not lead to significant volatility in the revenues they receive. This can be best achieved through robust, legally binding emission-reduction targets in the developed world. The AGF notes this and stresses that to reach the US$100 billion target, emission-reduction targets must be stringent enough to deliver a reliable carbon price of US$20–25/tonne. The ways in which policies are designed can complement this further.

Some SIDS may have concerns regarding the role of direct budgetary contributions and multilateral development banks in raising and disbursing international climate finance. This applies particularly to SIDS that are not LDCs. Both sources are important[17] and may imply disbursement patterns along similar geographical lines as existing ODA and multilateral lending. This may concern non-LDC SIDS, whose climate exposure means they have high adaptation requirements but who, as middle-income countries, currently receive relatively little ODA or multilateral lending. Non-LDC SIDS may require around 3.4% of the total adaptation needs in the developing world, but currently receive only 2.2% of ODA and only 1.7% of multilateral lending flows[18]. In other words, if climate finance follows these disbursement patterns, non-LDC SIDS will receive only half to two-thirds of the adaptation funding they require.

Next steps

- SIDs should build on the momentum developed by the AGF to reach consensus on the appropriate sources — and means of mobilising — new and additional revenue for climate finance, and to develop arrangements for disbursing this finance.
- SIDS should emphasise the AGF report's recognition that "grants and highly concessional loans are crucial for adaptation in the most vulnerable developing countries".
- At the same time, SIDS should explore opportunities to leverage private-sector investment to help them manage the risks of climate change, and to exploit their renewable resources to seize low-carbon growth opportunities.
- Given their reliance on trade and tourism, SIDS should participate in discussions to design and quantify the compensation required from levies on international transport.
- SIDS will want to ensure that climate finance is disbursed according to need, not existing aid patterns

Notes

1. High-Level Advisory Group on Climate Change Financing (2010) *Report of the Secretary General's High-level Advisory Group on Climate Change Financing*, 5th November.
2. Barr, R., Fankhauser, S. and Hamilton, K. (2010) *Adaptation investments: a resource allocation framework*, Mitigation and Adaptation Strategies for Global Change, 15(8): 843–858.
3. World Resources Institute Climate Analysis Indicators Tool. http://cait.wri.org
4. Data collected as part of the study: World Bank (2010) *Economics of the Adaptation to Climate Change*. Notably, this study does not consider Singapore.
5. Stern, N. (2009) *The Global Deal. Climate Change and the Creation of a New Era of Progress and Prosperity*. PublicAffairs, New York, USA.
6. In this calculation, we exclude the GDP of Singapore, which accounts for over 40% of SIDS' GDP, in order to make this estimate comparable with the World Bank estimates on adaptation costs. Including Singapore in this calculation would increase the estimated mitigation requirement to US$4–8 billion.
7. Actual values taken as the sum of disbursement from climate funds and investment associated with the CDM. The disbursement of resources from climate funds taken from www.climatefundsupdate.org, accessed on 25th October 2010. Not all entries in this website have an estimate of resources disbursed to a particular programme. Resources to geographically generic programmes are not included. Investment associated with the CDM is taken from UNEP Risoe CDM/JI Pipeline Analysis and Database, October 1st 2010.
8. Market potential is calculated as the proportion of non land-use change emissions from non-Annex I countries in SIDS in 2005, from WRI CAIT v7.0. Actual market share is calculated as the expected percentage of Certified Emission Reductions to 2012 associated with projects in SIDS, from the UNEP RISOE database.
9. For those countries/regions that have domestic emission-trading schemes, this could be implemented by auctioning the allowances to individual companies or installations.
10. World Bank (2010) *op. Cit.*
11. Stern, N. (2009) *op. Cit.*
12. http://data.worldbank.org/data-catalog/world-development-indicators
13. The report suggests that, as an alternative, an international financial transaction tax could raise similar funds.
14. The World Bank reports that the size of the Kyoto offset markets (and voluntary markets) in 2009 was 283 $MtCO_2e$ and in 2008 it was 486 $MtCO_2e$. See: World Bank (2010) *State and Trends of the Carbon Market 2010*.
15. This estimate counts intra-SIDS trade twice. However, this is expected to be a small proportion of the total investment.
16. These figures are intended to provide an indicative assessment of potential compensation requirements. They should not be interpreted as providing an accurate assessment of the incidence of any transport levies; this would require more detailed assessment that considers account cost pass-through and demand-change impacts, which may vary by commodity (for freight movements) and route. For comparison, the AGF's assessment that perhaps US$10 billion could be raised from this source assumes that developing country incidence is 30% and that a further 20–45% of revenues raised are used for purposes other than climate finance.
17. In particular, the report identifies how allocating US$10 billion of public revenues to multilateral development banks can result in US$30–40 billion of lending activity by these institutions.
18. This calculation is based on a restricted sample of LDCs for which adaptation investment needs are available.

How can CDKN help developing countries?

The Climate and Development Knowledge Network (CDKN) aims to help decision-makers in developing countries design and deliver climate compatible development. We do this by providing demand-led research and technical assistance, and channelling the best available knowledge on climate change and development to support policy processes at the country level.

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