



Climate Finance Fundamentals

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Brief 8

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Asia has received the most international climate finance to date, largely for mitigation activities. It is home to some of the fastest growing economies in the world, as well as some of its poorest countries, and hundreds of millions of poor people. China and India both receive and spend the largest amount of climate finance globally, whereas the region's most vulnerable countries, particularly the small Pacific Island states, receive very little funding. The Multilateral Development Banks led by the World Bank Group and the Asian Development Bank and acting mainly through the Climate Investment Funds and the Global Environmental Facility are major players in the delivery of climate finance in the region. Japan, Australia, Germany and the US are also active through bilateral channels. A major challenge for the countries of Asia and the Pacific remains how to allocate the resources raised effectively and equitably both between and within countries.

Overview

Asia is the largest continent on Earth, and there is huge economic, social, cultural and geographical diversity in the countries of the Asia and Pacific region. It consists of four major climatic zones (the boreal, temperate, arid/semi-arid, and tropical), and is vulnerable to a wide range of climate related threats. The pressures of economic

development have caused significant degradation of water, air quality, land, and natural ecosystems. The 2007 IPCC Assessment Report suggested a marked increase in the intensity of extreme weather incidents due to climate change, such as prolonged dry spells, tropical cyclones, the melting of glaciers, heat waves and intense rainfall events in the region.

Historically, Asian countries have contributed little to the global accumulation of greenhouse gas emissions (GHGs), and per capita emissions in most countries are still very low. Today, however, demand for cheap energy from fossil fuels in major Asian economies is one of the leading causes of GHG emission growth. The manufacturing and technological innovations that have driven economic growth in the region may well prove essential to realising the cost reductions and advances that render widespread deployment of low carbon technologies feasible. Curbing deforestation and degradation in the region, especially in Indonesia, is also crucial to reducing forest emissions.

The diverse characteristics of Asian and Pacific countries limit the utility of regional estimates of funding needs, although it is clear that the costs of climate change will be substantial. The World Bank estimates that the costs of adaptation from 2010 - 50 will be \$22.25 billion for East Asia and Pacific, and \$14.05 billion in South Asia

■ **Funding delivered** – The Climate Funds Update (CFU) website reports that a total of \$1.73 billion for Asian countries has been approved between 2004 and October 2011 from dedicated climate funds. Approximately \$866 million of this approved funding has been disbursed, including \$60 million this year. Almost 3,000 Clean Development Mechanism (CDM) projects under the Kyoto Protocol are implemented in Asia and the Pacific representing 82% of the CDM project portfolio. The CDM today primarily supports hydropower, wind, and biomass energy.

Most CDM projects and more than half of the climate finance targeting Asia and the Pacific are directed at just two countries: India and China. Far smaller sums of money have been directed to countries that are highly vulnerable to the impacts of climate change, such as densely populated Bangladesh (\$18 million) and Sri Lanka (\$5.7 million), and to the small island states of the Pacific (where in total nine countries have received about \$46 million). Equitable, efficient and effective allocation of climate finance resources is therefore a principal challenge for the region.

Curbing GHG emissions: Climate Finance in India and China

While per capita emissions remain low, the GHG emissions of India and China are very high in absolute terms and are growing rapidly. Large scale investments in new coal fired power stations and increased use of motor vehicles largely explain these trends. Indeed since 2007, China has emitted more GHG emissions than the United States in absolute terms, although on a per-capita basis, emissions in China are still significantly below those of the Annex II countries.

Nevertheless, both countries are making increasingly serious investments in renewable energy and clean technology even in the absence of emission reduction obligations under the Kyoto Protocol, enabled by reforms to their underlying policy and regulatory frameworks for energy. In fact, China was one of the largest investors in clean energy in both 2010 and 2011. Both countries have developed national climate change strategies and are mobilising significant domestic resources toward clean technology deployment. India has recently announced its intention to better integrate climate change into its development agenda and financial systems by creating a dedicated climate change unit in its Ministry of Finance.

The majority of climate finance directed at these two countries has supported mitigation activities. CFU data suggests that a total of \$238 million for 38 projects in China have been approved, and \$187 million has been disbursed across 35 projects to date. In India, \$144 million has been approved and disbursed. Disbursement of funding seems to have followed approval relatively quickly, indicating the readiness of these country governments to put climate finance to use, as well as the eagerness of fund managers to engage with them.

India and China are also the two most populous countries in Asia and home to hundreds of millions of poor people who are highly vulnerable to impacts of climate change. While more than 99% of China's population has access to electricity, in

India electrification rates are only 60%, although concerted efforts are being made to address energy poverty. Thus far, there has been relatively less focus on adaptation to the impacts of climate change in India and China from either the international funder community or the country governments themselves.

■ **Small Islands Development States (SIDS) and Least Developed Countries (LDCs)** – 22 SIDs are located in the Asia Pacific region. Their low lying coastlines, remoteness, and vulnerability to natural disasters make them particularly exposed to climate change risk, although they contribute less than 1% of global GHG emissions. Furthermore, there are 15 least developed countries in the region, which are seriously affected by natural disasters, food insecurity and water scarcity. Climate change will aggravate existing poverty, inequality and vulnerability. Both these country groups are dependent on external funding for adaptation for their survival. So far, however, they have only received \$35 million from dedicated climate funds between 2004 and 2011.

■ **Funding across major themes** – The majority of climate finance for Asia and the Pacific has been directed to mitigation activities. However, there has been growing financing for programs to reduce emissions from deforestation and degradation (REDD+) and for adaptation to the impacts of climate change, although the latter is underfunded.

■ **Mitigation** – \$588 million has been directed to mitigation activities in Asia, which represents more than 70% of dedicated climate finance for the region. The Global Environment Facility (GEF) has disbursed \$370 million for the implementation of 73 mitigation projects as of October 2011 under its Fourth and Fifth Replenishments. Its biggest project has been a \$45 million Coal Fired Generation Rehabilitation Project in India to reduce coal and oil consumption. India is also the recipient of the second biggest GEF project in the region, a \$23 million Sustainable Urban Transport initiative. The Clean Technology Fund (CTF) of the Climate Investment Funds has also been very active and has approved \$494 million for the implementation of 14 projects in the region as of November 2011. The CTF has committed \$1.2 billion to South East Asia in support of investment plans that will support renewable energy, energy efficiency and sustainable transport in Vietnam (\$250 million), the Philippines (\$250 million), Thailand (\$300 million), and Indonesia (\$400 million). A \$775 million CTF investment plan for India was approved in November 2011. In addition to financing energy efficiency and concentrated solar power, the plan seeks financing for large hydropower development in Northern India. This has raised questions about the

Chart: Breakdown of amount disbursed in Asia and the Pacific and contribution from each fund

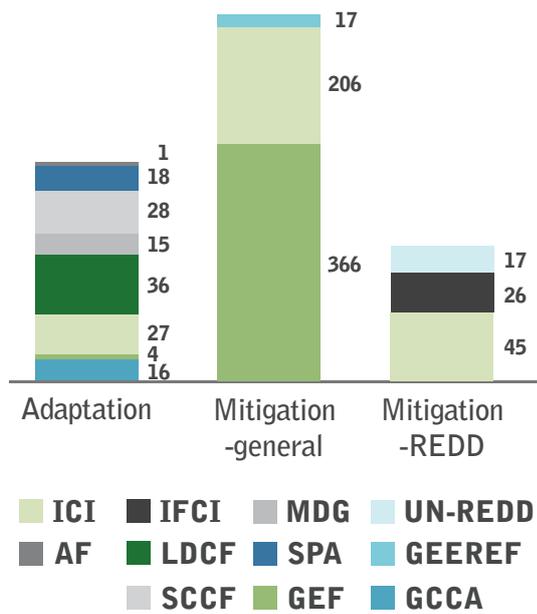
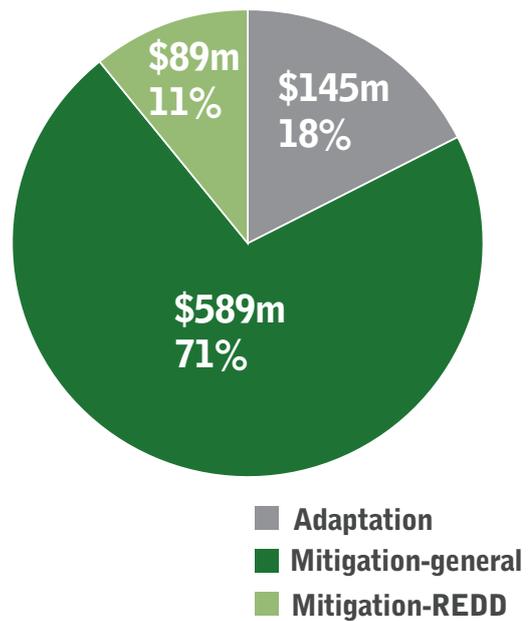


Chart: Funding for climate projects by theme in Asia and the Pacific



additional value of climate finance for technologies such as dams that are already commercially viable. Nepal and the Maldives are also pilot countries in the Scaling Renewable Energy Program of the CIF, and received initial planning preparation grants of \$370,000 and \$310,000, respectively.

■ **REDD+** – CFU data suggests that \$89 million has been directed to REDD + activities in Asian and Pacific countries. Indonesia has been a primary focus given its expansive tropical forests, which are under immense pressure, particularly from agricultural expansion (including for biofuels) and logging, and receives the majority of REDD+ finance. It is a participant in the Forest Carbon Partnership Facility, the UN-REDD program, and the Forest Investment Program (FIP) of the CIFs. Indonesia has also established its own national Indonesia Climate Change Trust Fund, which supports REDD+ projects. Additionally, it has entered into a major bilateral arrangement with the Government of Norway to receive up to \$1 billion for REDD+ activities, alongside ongoing bilateral collaborations with countries such as Germany and Australia. Other South East Asian countries are also receiving REDD funding: Vietnam through UN REDD, and Laos as a FIP pilot. Some forest rich Pacific islands –notably Papua New Guinea (PNG)—have been vocal advocates in the UNFCCC negotiations on the need for financial compensation for reducing deforestation. UNREDD is working with PNG and the Solomon Islands, as is the FCPF. Germany’s International Climate Initiative has also supported

a regional capacity building program on REDD and disbursed some \$45 million to Asia Pacific to date. Australia’s International Forest Carbon Initiative has disbursed \$26 million.

■ **Adaptation** – By contrast, \$145 million of climate finance has been spent on adaptation projects across Asia and the Pacific. However, it does appear that Pacific small island states have been prioritized in the allocation of adaptation finance, commensurate with their vulnerability. **The Least Developed Countries Fund (LDCF)** has been the most active to date, having disbursed \$37 million for the implementation of 26 projects in the region, covering 15 different countries. **The Strategic Climate Change Fund (SCCF)** disbursed \$28 million for 6 projects, the largest of which is a \$13 million regional Pacific Adaptation to Climate Change Project that supports food security and production; coastal management; and water resources management in 13 island countries. More recently, the **Pilot Program for Climate Resilience (PPCR)** has supported programs in Samoa and Papua New Guinea for a total of \$26 million in the form of grants, the majority (25 million) of which was disbursed in 2011. Turkmenistan, Mongolia, the Maldives and the Solomon Islands have been early beneficiaries of the Adaptation Fund, which has approved \$23 million for 4 projects. However, as of November 2011, no funding has been disbursed for any of these projects. Finally, Germany disbursed \$27 million for 13 adaptation projects in the region through its International Climate Initiative.

Active players in the region

The MDBs, notably the **World Bank** and the **Asian Development Bank (ADB)** are critical climate finance actors in the region. The ADB implements projects financed by the **CIF** and the **GEF**. It also increasingly incorporates climate change considerations into its core engagement with member countries around energy, setting ambitious targets to increase its lending for energy efficiency and renewable energy throughout the region. The ADB manages a number of programs facilitating access to carbon markets, such as the **Asia Pacific Carbon Fund (APCF)**, which provides advance payments for carbon credit projects to help co-finance the upfront capital costs of CDM projects supported by the ADB. The **GCCA** of the EU also has a growing portfolio in Asia, having disbursed a total of \$32 million in the region to date.

Regional institutions including the **Association of South East Asian Nations** and the **Asia Pacific Economic Cooperation** forum are increasingly focused on climate change and green growth. The government of Korea now also hosts the Green Growth Institute, an international organization that brings developed and developing country governments together to maximize the potential for country led progress on climate change and environmental objectives.

Bilateral Finance

The UNFCCC, drawing on unverified self-reporting by Annex I parties, estimates that \$5.4 billion in climate finance had been directed to Asia through bilateral channels by 2010, which accounts for 68.9% of bilateral climate finance reported during that period. The top funding recipients were China (\$1.09 billion), India (\$1.517 billion), Turkey (\$914 million), and Indonesia (\$880 million). The governments of Australia, Germany, the United States, Japan, and Norway have been major contributors. The United States has focused on Asia in particular, including by supporting the now-closed Asia Pacific Partnership. In 2010 it directed more than \$280 million in climate related aid to the region. Indonesia and Bangladesh's efforts to establish national climate change trust funds are importance examples of recipient country efforts to coordinate climate finance contributions from industrialized countries in order to ensure alignment with national priorities. In both cases, domestic resources supplement international climate

finance for projects -- primarily mitigation from energy and REDD+ in the case of Indonesia, and adaptation in Bangladesh. The national trust fund approach may offer insights into approaches for strengthening national ownership and coordination of climate finance.

Targeting the people and sectors most in need

Despite rapid growth, there remains enormous economic disparity and inequality within and amongst Asia's wealthiest economies, where hundreds of millions of people continue to live in great poverty and thus remain highly vulnerable to the impacts of climate change. Severe climate related natural disasters in some of the richer Asian countries demonstrated this vividly, such as the 2006 landslides in the Philippines, flooding in China and in Pakistan in 2010, and in Thailand earlier this year. The island nations of the Pacific Ocean are particularly susceptible to rising sea levels, which may cause displacement of their entire populations and thus threaten their nations' survival.

Clearly there are urgent and substantial opportunities to mitigate GHG emissions in the Asia Pacific region. As efforts to finance such programs at scale increase, however, questions are being raised as to how well such interventions balance mitigation objectives with poverty reduction and development needs. Furthermore, the environmental and social impacts of some large scale mitigation interventions in the energy sector, for example through the development of large dams as well as around REDD+ in terms of the rights of the forest poor and indigenous peoples, may be quite problematic.

As noted, the resources directed towards adaptation to climate change in the region have been relatively limited thus far. In particular, the small island states of the Pacific continue to receive very limited financial support despite their enormous vulnerability. Improving the allocation of resources, both between and within countries is a primary challenge. The latter will require strengthening domestic systems of governance to give the poorest and most vulnerable people greater voice in the distribution of climate finance, and a greater share of the benefits.

References and useful links:

World Bank. 2009. The Costs to Developing Countries of Adapting to Climate Change: The Global Report of the Economics of Adaptation to Climate Change Study.

Florini, A. and Dubash, K (eds). Special Issue on Global Energy Governance and Asia. Global Policy. Sep 2011.