

FPC Briefing: Climate change cooperation within the Global South: Finance, policy and institutions

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As the latest Intergovernmental Panel on Climate Change assessments continue to be examined, the world's governments face a self-imposed deadline of late 2015 to conclude negotiations on a new global agreement to respond to climate change. The main faultline in these negotiations runs broadly between developed and developing countries - respectively, the Annex I and Non-Annex I signatories to the United Nations Framework Convention on Climate Change (UNFCCC). At the UN summits, the Non-Annex I parties that present (or attempt to present) a united front as the Global South are a diverse group, ranging from China and India to small island states and from oil-rich Gulf states to the least developed countries. This brief examines an increasingly important dimension of international climate politics - the forms of cooperation among this diverse group of developing countries and emerging markets that are taking place outside the confines of the UN climate negotiations.

A major and growing element of the climate challenge is the rapid increase in developing country greenhouse gas (GHG) emissions, both in absolute terms and as a proportion of global emissions. Non-Annex I signatories to the UNFCCC already account for over fifty per cent of GHG emissions.¹

This challenge is broader than the current emissions increases of the large 'emerging' economies. While the 2010 energy consumption of Organization for Economic Co-operation and Development (OECD) member nations was 2.4% higher than in 2000, non-OECD members experienced a 63% increase over the same period, with major increases forecast to continue.² There remains massive unmet energy demand in least developed and developing countries (e.g. some 600 million Africans do not have access to electricity) and significant barriers (including expense, technology and grid capacity) to the growth of renewable energy in many such countries.³

A more recent phenomenon than the accelerated increase of developing country emissions has been the development of growing networks of developing country actors - both public and private sector - which cooperate and share information on climate change mitigation and adaptation. This cooperation has several dimensions:

- Financial: Cooperation on clean energy and other mitigation and adaptation projects, sometimes involving the transfer or joint development of technology.
- Policy: This includes formal and informal exchanges among policymakers, both bilateral and through multilateral and regional institutions such as development banks. Participants engage in the adoption and adaptation of climate laws and initiatives from other jurisdictions.
- Institutional: This includes new centres of South-South cooperation and the establishment of new international organisations in developing countries and emerging markets. These institutions are distinct from blocs such as the G77 & China and the BASIC countries which participate directly in the UN climate negotiations.

Several factors have combined to make these networks potentially significant. First, increasing GHG emissions (both absolute and per capita) make the energy mixes and climate policy choices of developing countries ever more important. Second, there is growing legislative and regulatory activity regarding climate mitigation in developing countries, as highlighted in a recent GLOBE International report.⁴

¹ David Held, Charles Roger and Eva-Maria Nag, 'Editors' Introduction', in Held, Roger and Nag (eds), *Climate Governance in the Developing World* (Cambridge: Polity Press, 2013), p 7.

² Pierre Noël, 'Asia's Rise and the New Global Energy Politics', in *The Global Energy Conversations: Transitions from West to East* (2011), Economist Intelligence Unit, pp 6-7.

³ Shehu Usman Yamusa and Abdul Haseeb Ansari, 'Renewable Energy Development in Two Selected African Countries: An Overview and Assessment' (2013) 4(2) *Renewable Energy Law & Policy Review*, p 155.

⁴ Michal Nachmany, *et al*, 'The GLOBE Climate Legislation Study: A Review of Climate Change Legislation in 66 Countries. Fourth Edition' (London: GLOBE International and the Grantham Research Institute, London School of Economics, 2014).

According to Held, Roger and Nag, China, Brazil, South Korea, Mexico and other non-Annex I countries are 'increasingly on the frontline of climate policymaking and can be considered global leaders in a number of significant ways'.⁵ This means that there is major potential for South-South policy learning and dissemination. Third, there is growing South-to-South finance for clean energy and other climate change projects. In short, the scope for significant cooperation among developing country and emerging market actors has increased.

Finance

North-to-South climate finance has long been a central focus of the UN climate negotiations, with disputes between countries over the amounts, timing and conditions of transfers to developing countries. Developed countries pledged to provide developing countries with \$30 billion in 'fast-start finance' between 2010 and 2012, with transfers rising to \$100 billion per year in climate finance by 2020. Alongside official North-to-South transfers, South-to-South cross-border financing for climate change mitigation (e.g. renewable energy projects) and adaptation has increased in recent years. This South-South funding has included assistance to least developed countries, export financing by the official sector and private sector investment. In addition, the emerging market for 'green bonds' has opened another channel for climate finance to be mobilised within the Global South.

According to a report released this month by the UN Environment Programme (UNEP), Bloomberg New Energy Finance and the Frankfurt School-UNEP Collaborating Centre, in 2013 there was \$92.7 billion in new investment in renewable energy in developing countries and \$121.7 billion in developed countries. The developing countries' share of investment was 43 per cent. These figures represent a significant narrowing of the gap between developed and developing countries since 2007, when developed country investment exceeded that of developing countries by a ratio of almost two and a half to one.⁶ The World Economic Forum has reported that South-originating clean energy asset financing is 'on track' to exceed finance sourced from developed countries.⁷

The majority of climate finance, including South-originating finance, is invested domestically.⁸ However, South-originating cross-border finance is also growing. For example, Bloomberg New Energy Finance has estimated that in 2012, South-South development bank clean energy capital flows totalled \$7.5 billion, up from \$2.8 billion in 2008 and compared to 2012 North-to-South flows of \$9.9 billion.⁹

The growing role of policy banks indicates a link between trade flows and South-South climate finance. An example is the financing provided for the Negrete Cuel wind farm project in Chile - a joint venture involving Chinese firm Goldwind - by the China Development Bank.¹⁰ Similarly, the Export-Import Bank of China, which is responsible for facilitating Chinese exports, has provided funding for the Adama wind farm project in Ethiopia.¹¹ As the official *China Daily* has reported, HydroChina, the Chinese entity implementing the project, 'didn't stride into the promising but remote market alone; instead, they tapped into Ethiopia through Chinese government foreign aid projects'.¹² Other South-South transactions are financed by the

⁵ David Held, Charles Roger and Eva-Maria Nag, 'Preface', in Held, Roger and Nag (eds), *Climate Governance in the Developing World* (Cambridge: Polity Press, 2013), p xi.

⁶ 'Global Trends in Renewable Energy Investment 2014', Frankfurt School-UNEP Centre/BNEF (2014), pp 16, 20.

⁷ 'The Green Investment Report: The ways and means to unlock private finance for green growth', A Report of the Green Growth Action Alliance, World Economic Forum (2013), pp 6, 11.

⁸ *Ibid*, p 11; 'The Global Landscape of Climate Finance 2013', Climate Policy Initiative, October 2013, pp 13-14.

⁹ 'Developments Banks - Breaking the \$100bn-a-year barrier', Bloomberg New Energy Finance, 10 September 2013.

¹⁰ Frankfurt School-UNEP Centre/BNEF, above n 6, p 41.

¹¹ 'Global Trends in Renewable Energy Investment 2013', Frankfurt School-UNEP Centre/BNEF (2013), p 28.

¹² Yao Jing, 'Chinese firms introducing new forms of energy into Ethiopia', *China Daily USA*, 28 January 2014, http://usa.chinadaily.com.cn/epaper/2014-01/28/content_17263189.htm.

private sector. Philippine power company EDC's investments in geothermal projects in Chile and Peru is an example.¹³

Export finance aside, some emerging markets have started to explicitly provide climate assistance to their less developed counterparts. For example at the 2012 Rio+20 sustainable development conference, China's then premier Wen Jiabao announced RMB 200 million in climate funding for least developed countries, small island states and African countries.¹⁴

The growing market for 'green bonds' may enable further financial cooperation between developing countries. The World Bank Group has issued green bonds since 2008, with other issuers including multilateral development banks such as the Asian Development Bank. There is no universally accepted definition of what makes a green bond. The World Bank criteria for eligible projects and the 'Green Bond Principles', which are supported by many of the major banks which have underwritten green bond issues, both include renewable energy, energy efficiency, sustainable forestry, etc.¹⁵

Last year, the Export-Import Bank of Korea issued a \$500 million green bond, which the bank has stated it will use to finance 'low carbon and climate resilient growth' projects.¹⁶ With a reported 79% of orders allocated to American and European investors, this is an example of a financial institution in an emerging market successfully tapping developed country resources outside of the UN framework. Analysts have predicted significant growth in the green bond market.¹⁷ Green bonds may become another means of cross-border financing within the Global South, both at the issue stage and subsequently in projects during the life of a bond.

South-originating climate finance - both domestic and cross-border - will continue to be an important component of the global response to climate change, as North-to-South transfers alone will likely continue to be insufficient to meet projected mitigation and adaptation requirements within developing countries. The \$100-billion-per-year-by-2020 commitment of developed nations under the UNFCCC can be contrasted with the International Energy Agency's call for an additional \$36 trillion to be invested in clean energy globally between 2012 and 2050 in order to restrict global warming to 2° celsius above preindustrial levels.¹⁸

Policy

As the UN climate negotiations have continued to deliver limited outcomes, new forums have been created to facilitate dissemination of policy and cooperation on matters including technology, research and policy implementation within the Global South. These developments have included initiatives of major emerging markets, such as China, the creation of new regional networks and the opening of international research and training centres to share the insights of policymakers in countries which are particularly vulnerable to climate change.

¹³ Stephan Nielsen, 'EDC, Alterra Complete Joint Venture for South America Geothermal', Bloomberg, 21 May 2013, <http://www.bloomberg.com/news/2013-05-21/edc-alterra-complete-joint-venture-for-south-america-geothermal.html>.

¹⁴ 'Secretary-General Ban urges delegates to "face existential reality" as United Nations Conference on Sustainable Development begins', United Nations, 21 June 2012, <http://www.un.org/News/Press/docs/2012/envdev1294.doc.htm>.

¹⁵ 'Green Bond Fact Sheet', The World Bank, March 2014, <http://treasury.worldbank.org/cmd/htm/WorldBankGreenBonds.html>; 'Green Bond Principles-2014: Voluntary Process Guidelines for Issuing Green Bonds', 13 January 2014, <http://www.ceres.org/resources/reports/green-bond-principles-2014-voluntary-process-guidelines-for-issuing-green-bonds>.

¹⁶ Denise Wee, 'Going green? Buy a Kexim bond', *Finance Asia*, 22 February 2013, http://www.financeasia.com/News/334012_going-green-buy-a-kexim-bond.aspx.

¹⁷ Nina Chestney, 'Green bond issuance to more than double this year: HSBC', Reuters, 27 January 2014, <http://www.reuters.com/article/2014/01/27/us-bonds-hsbc-idUSBREA0Q12O20140127>.

¹⁸ 'Energy Technology Perspectives 2012: Pathways to a Clean Energy System - Executive Summary', International Energy Agency (2012), p 1.

As the world's largest investor in renewable energy,¹⁹ and having developed a significant set of domestic climate policies under its current Five Year Plan, China has been prominent in the creation of new policy and knowledge exchange networks. In 2010 the UN Development Programme (UNDP) and China formed a partnership to promote South-South development cooperation, including with respect to climate change. Under this agreement, the UNDP and China's Ministry of Science and Technology have co-hosted workshops on 'green' technologies for officials from Asian and African countries to promote technology transfer. The UNDP has also flagged talks with China's powerful National Development and Reform Commission (NDRC) to agree a joint programme to assist developing countries with climate change adaptation.²⁰

2012 saw the launch of a China-India low carbon research collaboration. The study is a joint project of the UNDP, China's NDRC, the Energy and Resource Institute of India and other Chinese and Indian organisations.²¹ The project aims to produce research on low carbon development and identify opportunities for China-India cooperation to support policymakers in both countries.²²

Other networks build on existing regional architecture to conduct research, share knowledge and support policy development in participating countries. Examples include the African Climate Policy Centre, which forms part of a joint initiative of the African Union Commission, the African Development Bank and the UN Economic Commission for Africa, and the Caribbean Community Climate Change Centre.²³

Recent years have also seen the creation of research and training centres which harness the experiences of locations that are particularly vulnerable to the effects of climate change and which, in responding to their vulnerability, develop particular expertise. Concerning adaptation, for example, one Intergovernmental Panel on Climate Change contributor recently stated that 'the poorer countries are leading the way on generating new knowledge through practice'.²⁴

Facing the Pacific Ocean to the east, the Philippines' Albay province experiences multiple cyclones each year and is vulnerable to tsunamis and storm surges.²⁵ The province's governor, Joey Salceda, is a self-described 'green economist' who co-chairs the Green Climate Fund, the institution agreed by nations to disburse climate finance to developing countries under the UN climate convention. Salceda has opened a Climate Change Academy to train subnational governments in risk reduction and adaptation. According to the Albay government, students have come from other ASEAN countries and from as far afield as Nepal and Kenya.²⁶ Similarly, the Dhaka-based International Centre for Climate Change and Development aims to

¹⁹ Having exceeded Europe in new investment in renewable energy in 2013 for the first time: Frankfurt School-UNEP Centre/BNEF, above n 6, p 20.

²⁰ 'The New UNDP-China Partnership for South-South and Global Issues: 2012 Highlights', UNDP in China (2013), p 15; UNDP-China Partnership for South-South and Global Issues: 2013 Highlights', UNDP in China (2014), pp 13, 20.

²¹ Helen Clark, 'China and India Low Carbon Pursuits Central to Global Sustainability', UNDP, 16 May 2012,

<http://www.undp.org/content/undp/en/home/presscenter/speeches/2012/05/17/helen-clark-china-and-india-low-carbon-pursuits-central-to-global-sustainability/>

²² UNDP in China (2014), above n 20, p 20.

²³ 'African Climate Policy Centre', United Nations Economic Commission for Africa, <http://www.uneca.org/acpc>; 'Caribbean Community Climate Change Centre', <http://www.caribbeanclimate.bz>.

²⁴ Saleemul Huq, 'The IPCC rings the warning bell louder. Is anyone listening?', Thomson Reuters Foundation, 2 April 2014,

<http://www.trust.org/item/20140402111117-ey52a>.

²⁵ The United Nations University and the Alliance Development Works have named the Philippines the third most exposed country to the threat of natural disaster. According to the '2012 World Risk Report', the Philippines faces a 'disastrous combination of extreme exposure and high vulnerability': '2012 World Risk Report', Alliance Development Works (2012), p 18. The Asian Development Bank has identified the Philippines as a 'global risk hotspot' in both human and economic terms, with 88 percent of its population and 85 percent of its domestic production located in areas at risk from 'multiple hazards': 'Special Evaluation Study: ADB's Response to Natural Disasters and Disaster Risks', Asian Development Bank, October 2012, p 5. In 2012 the Intergovernmental Panel on Climate Change reported that '[h]eavy rainfalls associated with tropical cyclones are likely to increase with continued warming', as is '[a]verage tropical cyclone maximum wind speed': 'Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation: Summary for Policymakers', Special Report of the Intergovernmental Panel on Climate Change (2012), p 11.

²⁶ Amita Legaspi, 'Albay shares disaster adaptation wisdom in climate change academy', GMA News Online, 22 November 2011,

<http://www.gmanetwork.com/news/story/239321/news/nation/albay-shares-disaster-adaptation-wisdom-in-climate-change-academy>.

conduct research and train local and international participants in the 'real-world context' of Bangladesh's high level of vulnerability to climate change.²⁷

Institutions

New institutions and government-to-government agreements have been created that support policy cooperation and cross-border financing within the Global South. These include institutions created through the policy entrepreneurship of a particular country, the headquartering of new international organisations within the Global South and new intergovernmental agreements to support climate change mitigation and adaptation. These developments can be seen in the context of a broader shakeup of international institutions in favour of greater developing country representation, which has included the creation of the G20, new caucuses of major emerging economies (the BRICS and, within the UN climate negotiations, the BASIC countries) and voting rights reform within the Bretton Woods institutions.

A prominent example of institution-building by particular countries is the Global Green Growth Institute (GGGI). The GGGI was established in 2010 as an initiative of South Korea's then-president, Lee Myung-Bak, in order to spread the 'green growth' strategy championed by the Lee administration to developing country partners.²⁸ The GGGI has attracted a membership of eighteen countries, including eleven 'participating members' from the Global South.²⁹ The institute works with developing country governments to design 'green growth plans' and assist with their implementation. Early partners have included Brazil, Ethiopia and Indonesia.³⁰

Developing countries and emerging markets have successfully competed to host new international climate and clean energy institutions. Having established the GGGI, South Korea also succeeded in its bid to host the secretariat of the Green Climate Fund. A former senior World Bank official described the decision to base the fund in Songdo as 'a break with the post-World War II practice of international organizations being headquartered in either Europe or the US'.³¹ Another new institution based in the Global South is the International Renewable Energy Agency (IRENA), which in 2011 opened its doors in Abu Dhabi, in the United Arab Emirates (UAE). IRENA, which currently has 130 members,³² has been set up to assist members in introducing renewable energy and to serve as a knowledge platform for renewable technologies, policy and finance. The choice of Abu Dhabi has been attributed partly to an 'impressive UAE diplomatic lobbying campaign, especially aimed at African countries', and partly to the UAE's offer to invest far more in the headquarters than the amount offered by Germany.³³ Alongside the UAE funding for IRENA, the Abu Dhabi Fund for Development has pledged up to \$350 million in concessional finance for renewable energy projects that have been endorsed by IRENA in developing countries.³⁴

Further institutional support for South-South cooperation may come from the BRICS - the Goldman Sachs acronym for Brazil, Russia, India and China that has been adopted by the countries themselves, which have held regular leader-to-leader summits since 2009 (subsequently joined by South Africa). In March 2013 the five nations agreed to establish a 'New Development Bank for mobilising resources for infrastructure and

²⁷ 'About the Centre', International Centre for Climate Change and Development, <http://centers.iub.edu.bd/iccad/index.php/courses/about-us>.

²⁸ South Korea's domestic 'green growth' policies have included greater use of renewable energy and the reduction of GHG emissions (measured against business-as-usual).

²⁹ 'Overview', Global Green Growth Institute, <http://gggi.org/about-gggi/background/organizational-overview/>.

³⁰ For a discussion of the GGGI's work in Ethiopia, see Jill Kosch O'Donnell, 'The Global Green Growth Institute: On a Mission to Prove Green Growth', Council on Foreign Relations, November 2012, <http://www.cfr.org/south-korea/global-green-growth-institute-mission-prove-green-growth/p29398>.

³¹ Michele de Nevers, 'South Korea Wins Green Climate Fund: Now Comes the Hard Part', Center for Global Development, 5 November 2012, <http://www.cgdev.org/blog/south-korea-wins-green-climate-fund-now-comes-hard-part>.

³² Including 129 states plus the European Union.

³³ Thijs Van de Graaf, 'Fragmentation in Global Energy Governance: Explaining the Creation of IRENA' (2013) 13(3) *Global Environmental Politics*, p 24.

³⁴ 'IRENA / Abu Dhabi Fund for Development', Climate Finance Options, <http://climatefinanceoptions.org/cfo/node/3337>.

sustainable development projects in BRICS and other emerging economies and developing countries'.³⁵ Uncertainty remains over the timing of the bank's establishment, its capitalisation, the respective contributions of member states and what kinds of 'sustainable development' projects the bank might finance.³⁶ At the same meeting, export-import and development banks from the BRICS nations concluded a 'Multilateral Agreement on Cooperation and Co-financing for Sustainable Development'. According to a statement from Brazil's development bank, this agreement could facilitate climate change mitigation and adaptation, renewable energy and energy efficiency initiatives.³⁷

In February 2014 the BRICS held their first Science, Technology and Innovation (STI) Ministerial Meeting, at which representatives agreed the text for a memorandum of understanding on STI cooperation.³⁸ The communiqué identifies 'climate change and natural disaster preparedness and mitigation' and 'new and renewable energy [and] energy efficiency' as 'main areas' of STI cooperation, among others. The communiqué also identifies five 'thematic areas' for implementation 'as a first step' under the MoU and names lead countries for each. These areas include 'climate change and natural disaster mitigation, led by Brazil' and 'new and renewable energy, and energy efficiency led by China'. Additionally, the communiqué supports 'efforts to establish BRICS mechanisms that enhance technology and knowledge transfer' among members, as well as the establishment of 'a dedicated BRICS STI training programme to address human capital challenges'.

Conclusion

With its slow-moving UNFCCC process, the international 'climate regime' has been described as 'innovative at its fringes, while being comparatively static on the inside'.³⁹ Increasingly, South-South cooperation is taking place at some of those innovative fringes: the cross-border 'cleantech' transactions and projects; the transfers of finance, technology and expertise; and the nascent institutions which facilitate South-South cooperation.

These networks are indications of a changing international political economy. As the developing country share of both the global economy and GHG emissions continues to grow, developing country actors, particularly in large emerging markets, are acquiring greater capability in the tools of climate mitigation and adaptation, including finance, technology and expertise.

Driven by diverse motives - commercial and economic, diplomatic and domestic - cooperation among developing countries and emerging markets is nevertheless an important and growing component of the global response to climate change.

³⁵ 'Fifth BRICS Summit Declaration and Action Plan', BRICS 2013, 27 March 2013, <http://www.brics5.co.za/fifth-brics-summit-declaration-and-action-plan/>.

³⁶ Following a meeting of BRICS finance officials in February 2014, Russia's deputy finance minister reported agreement on an initial capitalisation of \$50 billion, rising to \$100 billion within five years. 'BRICS to set up their bank, progress slow - Russia', Reuters, 25 February 2014, <http://www.reuters.com/article/2014/02/25/russia-brics-banks-idUSL6N0LU43920140225>.

³⁷ 'BNDES and other development banks in the BRICS sign cooperation agreements', BNDES, 27 March 2013, http://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/Press/Noticias/2013/20130327_brics.html.

³⁸ The MoU is due to be signed at the sixth BRICS summit in Brazil in July 2014. 'First BRICS Science, Technology and Innovation Ministerial Meeting: Cape Town Declaration', 10 February 2014, <http://www.brics5.co.za/first-brics-science-technology-and-innovation-ministerial-meeting-cape-town-declaration-10-february-2014/>.

³⁹ Charlotte Streck, 'Innovativeness and Paralysis in International Climate Policy' (2012) 1(1) *Transnational Environmental Law*, p 142.