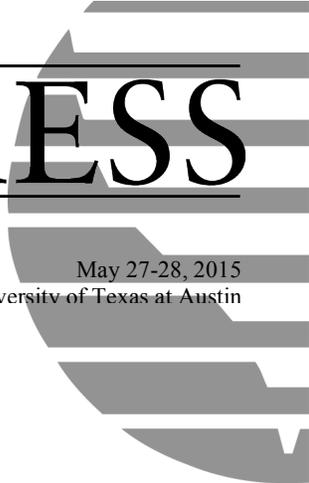

KEYNOTE ADDRESS

Sponsored by

The Stanley Foundation and the Lyndon B. Johnson School of Public Affairs, University of Texas at Austin
Key Regional Actors and Sector Opportunities for International Climate Change Cooperation

May 27-28, 2015

University of Texas at Austin



Why Climate Action Needs Solution-Oriented Partnerships

Keynote Address

by

Arunabha Ghosh

Introduction

Good morning and many thanks to Josh Busby, Rei Tang and Sarang Shidore for inviting me to this important conference.

I. Challenged regimes

The international governance of climate change is being altered by new pressures and institutions. For better or for worse, the climate regime is being challenged in five ways. First, there is little consensus on how to manage the balance between bottom up and top down approaches: whether we should aim for a new climate protocol, a new legal instrument or an ‘agreed outcome with legal force’. Secondly, there remain fundamental disagreements over regime design, not simply the question of how much flexibility to accord to countries but persisting questions about lack of enforcement mechanisms, weak review of actions, and contestation over the Annex I/Non-Annex I distinction. Thirdly, the regime complex of climate negotiations has become more obvious, with debates about the decision-making at the G-20, the role of the Montreal Protocol (for HFCs, for instance), the Green Climate Fund’s relationship with dozens of other climate-related funds, trade disputes at the WTO over promotion of clean energy, and so forth. Fourthly, there is growing reliance on informal networks to break logjams in multilateral negotiations and develop consensus on policy issues, with concerns about their exclusivity. Fifthly, many other issues remain semi-governed (the climate implications of continued fossil fuel exploration and production in the Arctic) or ungoverned (growing research and interest in climate geoengineering).

II. What kinds of negotiations will not succeed?

Leaders must recognise that an international climate agreement will not be possible if negotiations continue on business-as-usual terms. Empty promises will not work. The UNFCCC architecture is grounded in certain assumptions about what the Convention can deliver (technology leapfrogging, innovative finance, emission cuts in return for cash, adequate response driven by growing body of information about climate change), which have led to a huge rise in expectations. In reality, nothing serious has been on offer to developing countries. In finance, despite new funds, no substantial monies have come forth. In technology and trade, there remain several barriers to transfer of technology combined with the rising threat of trade disputes, if countries seek to promote clean energy at home. Information about rising temperatures or warming oceans (via a series of IPCC reports) has not automatically resulted in proportional response.

In addition to empty promises, climate negotiations have been beset with the “large-N” problem. It is true that negotiations involving more than 190 countries, each with a veto, have not succeeded. But it would be wrong to draw the conclusion from this that large groups cannot arrive at an agreement, even when consensus-based decisions are the norm. There are numerous examples of multilateral agreements having been concluded. We have to recognise that the climate problem is not merely a grave environmental one, it is a problem borne out of injustice. The denial of equitable access to sustainable development, while continuing to shrink the remaining global atmospheric space, is at the core of this injustice – and opposition by one or more countries on these grounds cannot be simply dismissed as marginal, irrelevant or obstructionist.

Equally, there is disproportionate hope placed in “small-N” negotiations, from expectations of a deal between China and the US, between the BASIC group and the US, or at the G-20. But this hope, too, is misplaced. It assumes that other countries have nothing to gain (or lose) and will be quiet spectators while a deal is made by and for a few. Secondly, it mistakenly wishes away the fact that large developing country emitters also have poor citizens for whom basic energy access is still a priority. These emerging economies, if not emerging powers, cannot ignore this vast constituency simply because they have a seat at the top table. Most importantly, the climate problem is due to the historic emissions of developed countries and will be exacerbated by the projected emissions of large developing countries. If these countries cannot arrive at a deal within the UNFCCC, why should we expect them to solve the problem among themselves?

Further, (artificial) coalitions of the willing will not work either. In recent years, emphasis has been laid by developed countries on corralling small countries together to apply pressure on other large developing countries (for example, the Climate and Clean Air Coalition focused on short-lived climate pollutants). However, without China or India, there is little expected impact of the CCAC except to harden positions within the formal UNFCCC negotiations.

Finally, for twenty-plus years, climate negotiations have been a “war of values”: equitable access to carbon space, intergenerational equity, common but differentiated responsibilities, uncompromising “way of life”, compensation, loss and damage and the polluter pays principle, etc. But their interpretations have been different and the analytics to determine the costs and benefits have been affected by such differing interpretations. Therefore, little common ground has been found to convert the values into enforceable commitments.

III. What is happening? Limited pledges mean more differentiation is needed

- How many countries have submitted INDCs? - 10
- How many G20 countries have submitted? - 5
- What do the commitments amount to so far? The pledges leave little room for other countries to grow.

Submitted INDCs	Date	G20 ?	Base Year	Base Year Mitigation (Mt of CO2 Eq)	Pledges for 2030 over baseline emissions	Lower Bound	Upper Bound
Switzerland	27-Feb-15	No	1990	53.3	30% - 50%	37.31	26.65
EU	06-Mar-15	Yes	1990	5368 (Not included in the INDC, taken from UNFCCC)	0.4	3,220.80	3,220.80
Norway	27-Mar-15	No	1990	41.8	0.4	25.08	25.08
Mexico	30-Mar-15	Yes	BAU	787	22%-36%	613.86	613.86
USA	31-Mar-15	Yes	2005	6,223 (Not included in the INDC, taken from UNFCCC)	26%-28%	4,605.02	4,480.56
Gabon*	01-Apr-15	No	2000	5.2 (Not included in the INDC, taken from UNFCCC)	50%	2.60	2.60
Russia	01-Apr-15	Yes	1990	2,637 (Not included in the INDC, taken from UNFCCC)	70%-75%	2,635.15	2,635.15
Liechtenstein	23-Apr-15	No	1990	0.219 (Not included in the INDC, taken from UNFCCC)	40%	0.13	0.13
Andorra	30-Apr-15	No	BAU	0.53	37%	0.33	0.33
Canada	15-May-15	Yes	2005	0.789 (Not included in the INDC, taken from UNFCCC)	30%	0.55	0.55
Total		5				11,138.24	11,003.12
Permissible Carbon Space (GCAM Model to stay within 2°C)						36,000.00	36,000.00
% Carbon Space Occupied						31%	31%
* 2025 target							
Sources:							
http://cait.wri.org/indc/#/profile/Canada							
http://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/key_ghg_data_press_background.pdf							
https://unfccc.int/files/ghg_data/ghg_data_unfccc/ghg_profiles/application/pdf/gab_ghg_profile.pdf							
https://unfccc.int/files/ghg_emissions_data/application/pdf/rus_ghg_profile.pdf							
http://ceew.in/pdf/ceew-india-indcs-re-and-the-pathway-to-p.pdf							

- Given the limited carbon space left by the largest emitters, it is important to bring some nuance into the discussion on differentiation.
 - India witnessed growth in per capita GDP (PPP) of 121% between 2000 and 2010, but this occurred with a concomitant growth in absolute emissions of 69%. Chinese incomes, on the other hand, grew at less than twice India's growth rate (216%) but registered more than double the growth rate in emissions (143%).
 - While both India and China aim to reduce their emissions intensities, and have done so, China's emission intensity has been higher in the past and is projected to be higher than that of India even in 2020.
 - In 2010, the share of renewable energy in India was 4.4%, far ahead of China at 1.7%. Even if large hydropower were included, China's share of renewable energy was only marginally more than India's in 2010. In 2020 India's share could already rise to 20% but China has committed to only 20% non-fossil energy (including nuclear power) by 2030.
- How much money has been pledged for GCF so far? How does that compare with say AIIB? - USD 10.2 billion have been pledged so far (until 21 May 2015), but only USD 5.5 billion are actually in the fund, the idea being that pledges should convert to contributions within a year of their announcement. By contrast, the newly created [AIIB](#) has an initial pledge from China at USD 50 billion. The availability of funds for long term investment does not seem to be a barrier. What is missing is political commitment to channel resources where they are needed most.
- How much money disbursed for adaptation so far? - Globally, in 2013, USD 25 billion of public resources went into adaptation financing ([Buchner et al 2014](#)). Of this, India received about 20% (CEEW analysis). Given below are the figures for some key funds.

Fund	Pledge (in USD million)	Deposit (in USD million)	Disbursement (in USD million)
Special Climate Change Fund (SCCF)	347.30	336.07	-
Pilot Program for Climate Resilience	1148	1074	36.51
Least Developed Countries Fund	914.47	903.05	-
Adaptation for small hold Agriculture	352.86	300.66	
Adaptation Fund	482.86	471.39	112.52
Millenium Development Goals Achievement Fund	89.5	89.5	89.5
Green Climate Fund	10,192.8		
Total	13,527.8	3,174.7	238.5

- What were the key outcomes from the climate and business dialogue at Paris?

Meanwhile, in May 2015, over 25 business networks, representing over 6.5 million companies from more than 130 countries came together in Paris to lead the global transition to a low-carbon, climate resilient economy. The summit concluded by calling on countries to deliver an ambitious agreement in Paris this year. Specifically, the delegates demanded the following necessary steps, which would help businesses effectively contribute to such an agreement:

- Launching a constructive and lasting Business Dialogue convened by the COP Presidency, between the business community and governments* - This would help achieve better understanding of the economic and transversal implications that might arise from the INDCs, while making negotiators aware of the issues at stake, and encouraging businesses to identify and implement appropriate carbon intensity reduction strategies.
- Boosting investments in low-carbon business solutions and technologies* – This would help counter the inherent risk of bringing new technologies to market deployment.

3. *Intensifying R&D, innovation and deployment of mature and breakthrough technologies.*
4. *The need of carbon pricing* - The agreement should lay the foundations for the integration of a carbon pricing system, in all major emitting countries.

Further, the business community also wanted that the agreement should include clauses to:

1. Guarantee comparable efforts from all major emitting economies ensuring fair competition between economic players
 2. Provide a long-term and predictable framework, which encourages investments and scaling by business of efficient carbon reduction and adaptation technologies, in a cost effective way
 3. Focus the future climate framework on the States' Intended Nationally Determined Contribution (INDCs), which should avoid competitive distortions, be coherent and detailed, in a five to ten-year term, and on fostering international cooperation
 4. Establish a reliable monitoring, reporting and verification system.
- What are the big outstanding issues for the negotiating text?

Despite efforts in climate financing and in private sector initiatives, some key issues remain unresolved in the negotiating text.

1. *Differentiation* – Developed countries want to do away with the stark differentiation seen in the Kyoto Protocol, which set binding emissions targets for developed countries only. But most developing countries are resisting the proposed alternative: accepting a de facto self-differentiation as countries tailor their contributions to their own circumstances.
2. *Finance* – both quantum and sources
3. *Legal character*– Beyond a stipulation that the agreement will have “legal force,” there’s no consensus on precisely what form it will take – or, more importantly, which particular elements will be legally binding.
4. *Transparency (framework of MRV)* – Existing UNFCCC requirements for the reporting and review of countries’ efforts are bifurcated: a more rigorous system for developed countries than for developing. Developed countries are pushing for a common framework covering all parties.
5. *Ambition*

IV. Alternative drivers for climate cooperation?

In the lead up to Paris, we have to remember that:

- Everyone cannot simply contribute just what they can do within their capacity
- What is lacking in the process is collective action or the cooperative agenda
- The most important contribution from member states could be keeping the long-term in mind
- Governments have a role in public policy particularly in setting a goal and a roadmap

Therefore we have to:

- Structure negotiations and institutions around problems
- Avoid the pitfalls of stovepiping mitigation, adaptation, technology and finance issues
- Have a literate conversation about finance
- Monitor, review, enforce and building trust

The climate is already changing. Despite their stated negotiating positions, major economies are recognising this reality. They are responding with domestic policies, whether for a cleaner energy mix, more efficient appliances, homes and cities, investments in public transport or electric vehicles, adapting to expected shifts in water availability or the need for different agricultural practices, targeting short-lived climate pollutants, and so forth.

The INDCs are structured to signal the actions that each country will take during 2020-2030 for mitigating and adapting to climate change, as well as to secure the finance, technology and capacity to develop an effective response. That said, the scale of the response is falling short of the needed effort. The response to climate change is a global public good, so actions by individual countries alone would not be sufficient. Partnerships between groups of countries on issues of common interest could demonstrate willingness and joint effort and result in solutions, which might have been hard to develop on one's own.

In order to develop these partnerships, it would be important to draw on the common drivers, which could be the basis for cooperation between countries. There are opportunities to leverage three growing demands: (i) from the poor for access to basic services (and their willingness to pay for the same); (ii) from the middle class for better quality of life and, thereby, efficiency in resource use (adequate energy and water availability, air and water pollution, health impacts, food price inflation); and (iii) from the upper income strata (in developed *and* developing countries) for better returns on investments in technologies and new business opportunities.

These drivers can be found in all countries, of course in varying degrees. Whether energy poverty and energy access, or demands for better quality air and water through investments in public transport, cleaner fuels and proper pricing, or private *and* public investments in risky energy and environmental technologies, India has had past experience with other countries in developing technology collaborations. The \$125 million India-US Joint Clean Energy R&D Centres are examples of public-private co-financing and collaboration on solar, energy efficiency in buildings, and second-generation biofuels.

V. What kinds of partnerships could we envision?

Pre-Lima, several partnerships and networks had been initiated:

- Forums for discussion
 - World Energy Council
 - Clean Energy Ministerial
 - Global Green Growth Forum (3GF)
- Forums for research and policy
 - International Renewable Energy Agency (IRENA)
 - Global Green Growth Institute
 - Renewable Energy Policy Network for the 21st century (REN21)
- Forums with a regional focus
 - European Green Cities Network (EGCN)
 - Regional Centre for Renewable Energy and Energy Efficiency
 - APEC Energy Ministerial
 - Renewable Energy Support Program for ASEAN (ASEAN-RESP)
- Forums for city-level action
 - Cities Development Initiative for Asia (CDIA)
 - C40
 - Local Governments for Sustainability (ICLEI)
- Forums with specific focus areas
 - International Partnership for Energy Efficiency Cooperation
 - Renewable Energy and Energy Efficiency Partnership (REEEP)
 - Global Bio-energy Partnership
 - Carbon Sequestration Leadership Forum
 - International Low Carbon Energy Technology Platform
 - Climate and Clean Air Coalition (CCAC)
 - Climate Technology Centre and Network (CTCN)

After the Lima COP in 2014, the Low Carbon Technology Partnerships Initiative was launched by the SDSN, World Business Council for Sustainable Development and the IEA. The French Presidency supports it for

COP21 in Paris. It is currently also supported by around 82 companies including Lafarge, Schneider Electric, Infosys, Arcelor Mittal, Joule Unlimited and so on.¹

But what is missing from these initiatives is a focus on targets and outcomes. My co-authors and I reviewed 30 climate and energy technology initiatives and found that very few partnerships have been designed to extend beyond sharing knowledge and some preliminary R&D activities. Very few have an enlarged functional focus on actual transfer of technology and/or extensive deployment mandates.²

Three key obstacles have impeded climate technology partnerships and the development and deployment of climate-friendly, namely lack of appropriate financing, intellectual property restrictions, and insufficient or underutilized capacity. Building on the common drivers of access, efficiency and investments in game changing technologies, India could play a role in promoting and participating in at least two new technology partnerships: energy access, and energy storage.³

Partnership on Energy Access: India should create a new multi-country partnership to promote much greater decentralised energy production to satisfy the potential demand from the two billion poor people who still lack access to basic modern energy. India has hundreds of entrepreneurs working in this sector offering a range of business models, across technologies and scales of operation, through leasing, sales of home systems, community-based products, and mini grids with productive anchor base loads. Showcasing their work would draw significant credit to India. The partnership, with other developing countries as well as developed ones, would supply initial working capital for far-flung smaller entrepreneurs in developing countries, help link them to larger investors such as pension funds, establish centres to certify these new technologies, and create model regulatory codes. Energy access for all is necessary before many developing countries will accept economy-wide emissions limits.

Partnership on Energy Storage and Grid Balancing: With renewable energy expected to account for 20%-30% of India's electricity mix by 2030, there is an urgent need for improved technologies for energy storage and grid balancing. India should co-chair a new multi-country partnership to speed up deployment of these technologies, which would give its research laboratories and public and private sector firms an opportunity to collaborate with the world's leading labs and companies (in France, Japan, Sweden and the United States) working on energy storage. The partnership could target research and development on specific issues-increasing the life of batteries, their energy density, or the efficiency of the charging/discharging process-and Indian firms could be joint owners of new intellectual property. India offers significant market potential to both test new technologies and commercialise viable ones. With this partnership India would have an opportunity to be at the frontiers of disruptive technological development.

Principles for Intellectual Property and Access to Technologies

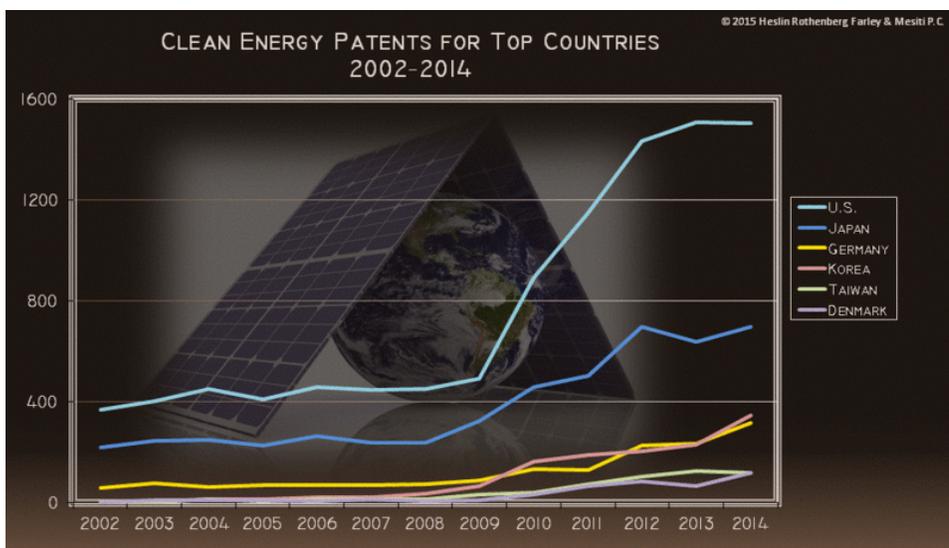
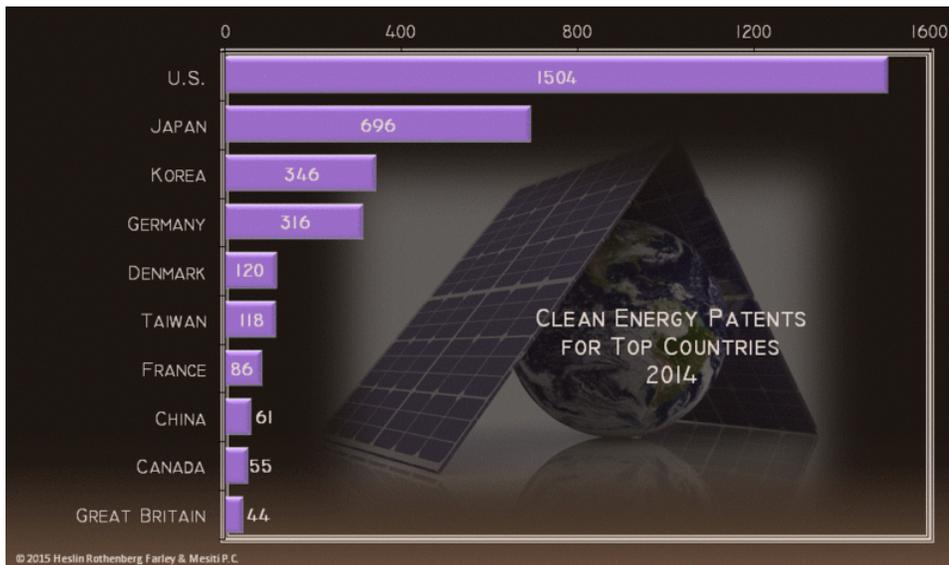
For solution-oriented partnerships to be effective, the issue of access to technology would have to be considered. The US and Japan hold the largest number of clean energy patents.⁴ In 2014 a record number of 3096 patents were granted by the USPTO in the field of clean technologies.

¹World Business Council for Sustainable Development(2015), "Low Carbon Technology Partnerships initiative (LCTPi) brings 82 companies together to deliver business solutions to climate change", Available at, <http://www.wbcsd.org/Pages/eNews/eNewsDetails.aspx?ID=16495&NoSearchContextKey=true>, Last Accessed on 26 May, 2015

² See Ghosh, Arunabha, Vijayakumar, Anupama, and Ray, Sudatta. 2015 (Forthcoming). *Climate Technology Partnerships: Form, Function and Impact*. CIGI Paper, Montreal: Centre for International Governance Innovation

³ Ghosh, Arunabha, and Ray, Sudatta. 2015 (Forthcoming). *Fixing Climate Governance through Effective Technology Partnerships*. CIGI Policy Brief, Montreal: Centre for International Governance Innovation

⁴ Heslin Rothenberg Farley and P.C. Mesiti *Clean Energy Patent Growth Index: 2014 A Year in Review*, San Fransisco: Clean Energy Group



The above partnerships, while promoting cooperation on development, could be guided by three key governing principles to ensure equitable access to technologies.

1. For those technologies that have already been developed (existing patents) and which are deemed to be necessary to avert the impacts of climate change, there must be necessary support from the developed world in enabling the rollout of these technologies by financing the process of licensing these technologies.
2. For those that are in the process of development, 'open source' registration of the IP must be promoted. This would enable interested parties across the world to make necessary modifications to tailor them to local conditions and improve performance (a much needed innovation in areas such as solar PV).
3. Finally, drawing lessons from the Green Revolution, coordinated efforts are still needed to develop technologies jointly. In such cases, contributing firms/research institutions would retain their original IP but any new technology would have shared IP, while making it accessible to smaller nations that may not have the capacity to contribute.

VI. An alternative process; an alternative outcome?

The Paris COP must have three objectives to succeed: it should give governments a platform to lead on different themes; it should allow for multiple small group deals and issue linkage; it should be managed well with the process being perceived as inclusive and legitimate. Process matters in international negotiations. Countries

need to believe that they have a meaningful role and are not being asked to merely rubber stamp a deal struck elsewhere. For issues to be linked, negotiators and their principals need to learn about their counterparts' interests. Small-N negotiations could offer the forum for such deliberation but they need to be open-ended and inclusive enough so that opportunities for linkage with other countries are not missed.

This approach towards technology partnerships would complement the country-specific INDC process and would have three merits. First, it would set out a roadmap for action at scale and across countries. Secondly, it would prioritise action now on some key issues of common concern, thereby building the trust necessary for implementing the 2020-2030 commitments. Thirdly, it would overcome the concerns about the voice of small countries. These technology partnerships and associated IP arrangements would not be exclusive clubs but would have open and expanding membership over time. If successful, other partnerships, such as on energy efficiency, water use efficiency, agricultural R&D or electric mobility, could be conceived in future.

Dr Arunabha Ghosh is CEO of the Council on Energy, Environment and Water (<http://ceew.in>), one of South Asia's leading think-tanks. Widely published, with work experience in 35 countries and having previously worked at Princeton, Oxford, the UN Development Programme, and the World Trade Organization, Arunabha advises governments, industry, and civil society around the world on: energy and resources security, renewable energy, water governance, climate governance, energy-trade-climate linkages, and international regime design. He is, most recently, co-author of *Climate Change: A Risk Assessment* (2015). Follow him @GhoshArunabha