TRANSPARENCY INTERNATIONAL BANGLADESH
Social movement against corruption

Unbundling Pledges, Actions of INDCs and Measuring Public Perceptions - A Methodological Study:

The Case of South Asian Countries

(Executive Summary)

24th July 2017

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Acknowledgement to

Researchers are grateful to Dr. S.M. Rezwan-Ul-Alam, M. Zakir Hossain Khan, Lipi Amena and Ashraf Uddin Miah for valuable assistance in carrying out this study .

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Citation: TIB, 2017, A Methodological Study-Unbundling Pledges, Actions of INDCs and Measuring Stakeholders' Perceptions : The Case of South Asian Countries, Transparency International Bangladesh, Dhaka, Bangladesh.

Executive Summary

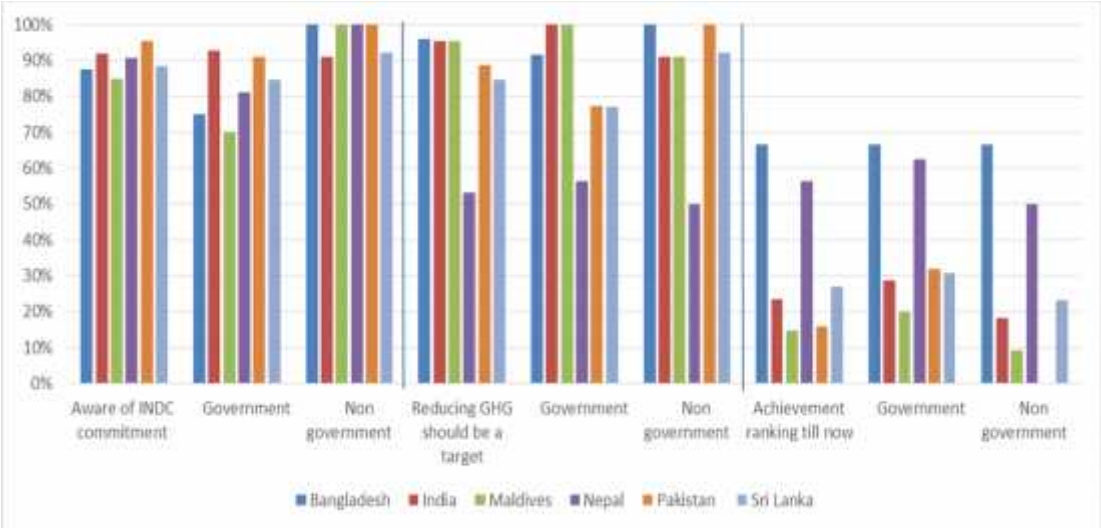
1. As a part of the United Nations Framework Conventions on Climate Change (UNFCCC) negotiation, all countries were asked to provide a global commitment to reduce carbon emission while the world search and reach an agreement on mitigation and adaptation measures. As a result countries have pledged to reduce their own carbon emission in order to contribute towards meeting the global targets to arrest the process of global warming. So far 165 countries of the world have pledged to reduce their carbon emission as a part of the Paris Agreement of Climate Change.
2. While the total emission of South Asian countries made up for less than 6% of global GHG emission, the average growth rate of emission from this region was no longer less than that of the world's emission. Average growth rate of GHG emission in South Asia is 3% whereas the global rate is 1% per annum since 1997. In South Asia, Bangladesh, India, Maldives, Nepal, Pakistan and Sri Lanka have also agreed to reduce their carbon emission both voluntarily and also in some cases with support from global communities.
3. Bangladesh submitted its INDC with the unconditional commitment to reduce 5% of its emissions from Business as Usual scenario and further 15% reduction conditional on availability of international assistance, by 2030. Mitigation efforts will be particularly concentrated on the Power, Transport and Industry sectors, since these are likely to be the highest emitting sectors of the country by 2030.
4. India pledged to reduce 33-35% of emission intensity of its GDP by 2030, compared to the 2005 levels. It also outlined the missions for accelerated dependence on non-fossil fuel based power production, with a target to reach 40% of cumulative installed renewable power sources by 2030. The country also pledged to develop carbon sink of 2.5-3 billion ton through afforestation.
5. Nepal did not explicitly pledged any voluntary reduction of GHG emission or intensity but has pledged to work towards low carbon development strategy with a special emphasis on renewable and alternative energy uses. It hopes to establish a synergy of efforts between the local communities and government bodies to expand the share of alternative energy source to 20%by 2020, increase share of electric vehicles to 20% by 2020 and develop electric railways by 2040. It also pledged to preserve 40% of its total land area as forest cover.
6. Maldives pledged to reduce 10% of its GHG emission under Business as usual scenario by 2030, and a further 24% under the availability of international finances and technological assistance.The government plans to install solar photovoltaic system, waste to energy programme and has initiated projects to achieve renewable-energy-ready grid systems.
7. Pakistan aims to reduce 20% of its projected GHG emissions if international grants are available to meet the abatement costs. It also targets to achieve an optimal energy mix of coal, gas and hydro. The government have begun constructing solar park of 1000 MW, improving public transport systems, tree plantation program across the country, conservation program for parks and protected areas and green cities charter.
8. Sri Lanka plans to move through a low carbon development pathway. To do so, it plans to reduce 16% of its emission in BAU scenarios in energy sector with additional 4% with international assistance, and 3% in transport, industry, forests and waste, and additional 7% in presence of international assistance by 2030. In order to achieve the goals, Sri Lanka aims to promote renewable energy like large scale wind power, biomass, mini and micro-hydro power, reduce unproductive transport system and introduce low emission vehicles.
9. Given these pledges, this study examines the following questions:
    a. Are the governments working towards their intended GHG emission reduction path?

b. Are the chosen path the best according to public opinion?
c. What is the perception of people in terms of progress made so far on GHG emission reduction?

10. Judging from the list of activities pledged by these countries, we can divided the groups of stakeholders into two broad categories. These are: a) Government and Academics – who are broadly decision makers or advisors in the policy framework in a country, and b) Private sector and CSOs (include NGOs) – who either follow the policy and legal environment in their decisions or lobby for policy changes to achieve their targets.
11. Electronic letters were sent to the select group of stakeholders using web-link to fill-up a questionnaire designed for this research to Bangladesh, India, Nepal, Maldives, Pakistan and Sri Lanka. In total 64 letters were sent to various categories of respondents in Bangladesh, 80 in Nepal, 61 in Maldives, 58 in India, 63 in Sri Lanka and 50 in Pakistan. The list included respondents from the following minor categories: Government Officer, Civil society activist, Transport operator, Energy producer /distributor/ transmitter /regulator /commission, Industry owner/MD, Environmentalist, Climate Specialist, Academic / Researcher, NGO/CSO, Business Organizations, and Others. A total of 140 responses were received and were used in the analysis of the results.
12. Data collection were completed between 17 November, 2016 and 13 February, 2017 in Bangladesh, India, Maldives and Nepal. While data collection in Sri Lanka began on 9 February 2017 and in Pakistan began on 16 February 2017. Both Pakistan and Sri Lanka surveys were completed in April 2017. This report is based on data from Bangladesh, India, Maldives, Nepal, Pakistan and Sri Lanka.

Results

13. Level of Awareness on INDC pledges: Despite the fact that Governments in each of these countries pledged to reduce GHG emissions, the level of awareness vary across different stakeholders. Government and academic groups are less aware about the pledges by the government than NGOs and private sectors players.



14. Should GHG emission reduction (of intensity) be a target for the South Asian countries? On this we found that only in Nepal the answer to this question is less popular among the stakeholder groups. In Nepal it is not so primarily because the government of Nepal has already maintained a national goal of keeping 40% of its land under forest cover (as carbon sink).

15. How did the governments do in terms of their pledges so far? On this, the general level of agreement is very low. The rating on achievement is more than 50 only in case of Bangladesh and Nepal while for India, Maldives, Pakistan and Sri Lanka it is less than 30 in a scale of 100.

Bangladesh

16. On strategies of the Government of Bangladesh to fulfill its INDC pledges – Of the 11 main strategies suggested by the Government, high level of consensus exists in case of 9 of the pledges (above 70%). Both groups of stakeholders are less skeptical on use of 'standardized gadgets' and 'accredited auditors' to reduce GHG emissions.
17. On the energy efficient technologies and/or strategies – study found that level of awareness of energy efficient technologies among government and academic groups are much higher than that of private players and NGOs. Perception on using rail and water transport systems to reduce GHG emission is much lower among private players too. The same is true for energy efficient fans to reduce emissions.
18. Level of awareness on government actions to reduce GHG emissions – Among the 6 major steps pledged by the government in the INDC, fuel switching for brick kilns and promoting combined cycle power plants is relatively less known than other actions of the government. Actions of the government to promote solar home systems, rooftop solar, solar irrigation pumps and waste to energy programs are most known among all stakeholders.
19. Study shows that the top 10 strategies for reducing GHG are: 1) reducing traffic jams, 2) upgrading urban bus services, 3) improving traffic management, 4) energy efficient power production, 5) fuel switching for brick kilns, 6) modernization of power plants (to make them energy efficient), 7) promotion of waste to energy projects in cities, 8) standardizing energy efficient gadgets, 9) Promoting improve cooking stoves in rural areas an 10) energy audits in factories.

India

20. Survey results show that in India, both Government and NGO groups consider energy audits and urban transport system to be the most efficient strategies. The NGO and others group of respondents consider a) using rewards to make firms energy efficient, b) energy pricing to promote renewable energy, c) interest subsidy for energy efficient investments, d) tax free import of energy efficient gadgets to be important strategies. The Government and Academics group also have shown the same preference except regarding tax free import of gadgets. Both Government and NGO groups consider standardizing gadgets to be the least important followed by economic growth remaining a priority.
21. With regard to the perception on energy efficient technologies in the market, it appears that in India both government and non-government respondents have sufficient information on presence of solar lights and wind based energy as energy efficient technologies in the country. On the other hand, while nearly 91% of entrepreneurs and NGO think that people have information on energy efficient lights in the market while only 57% of the Government and Academic group think the same way.
22. On the perception on GHG emission reduction technologies/strategies - In terms of knowledge on the government actions to reduce emission, results show that nearly 92% of the respondents are aware about this government strategy. This is 80% for solar home systems and 71% for solar irrigation projects. Very few had idea about the government plan to introduce super critical technology as mandatory for ultra-mega power projects in India. On waste to energy projects of the government, non-government group are far less aware than that of government and academic group.

23. On prioritization of emission reduction strategies, results show that 83% in India think that improved cooking stove should be a priority to reduce GHG emission and it is followed by solar mini grid technology, and energy audits in factories. Rooftop solar, solar home system in off-grid areas, wind energy are liked mostly by government and academic group but not as much by the non-government groups.
24. Government of India had set 8 national core missions to achieve its energy reduction. Questions on the level of awareness on these missions to find the three most preferred missions reveals that only 45% of the non-government players are aware of these missions. However, preferred three missions area a) National solar mission, b) National mission for sustainable agriculture, and c) National mission on Strategy knowledge for climate change

Maldives

25. Respondents of both groups considered solar based lighting as an efficient option for industries, while wind based power had divided supporters with only 18% of NGO and CSO employees considering it as an efficient option, and 70% of government and academics think in the same way.
26. Among the actions undertaken by the Government of Maldives to reduce GHG emissions, respondents were least aware of planned acceleration of sustainable private investment in renewable energy. Promotion of waste to energy projects were also not a recognized step among the respondents. Promotion of solar based grid system, however, was the most known action taken by government to fulfill INDC pledges.
27. Promotion of waste to energy in municipalities, and environment management plan for Hulhumale, were the top two most favoured mitigation strategies by respondents. Apart from these two, Government and academics respondents also considered, undertaking awareness workshops on energy efficiency as an important strategy. On the other hand, respondents from NGO and entrepreneurs group were supportive of standardizing energy efficient gadgets, reducing traffic jam in Male, improving traffic management, energy efficient power production, promotion of roof top electricity, and undertaking of awareness workshop as priority policies to be implemented.
28. Among strategies given to respondents to reduce carbon footprint, most preferred strategies were roof top solar for grid and for home connections but solar mini grids system didn't receive as much support as the other two. Urban transportation and waste to energy projects received more support from NGOs and entrepreneurs than government and academic respondents as preferred strategies for Maldives for a lower carbon footprint economy.

Nepal

29. **Error! Reference source not found.**Study reveals a general agreement developing an urban transport system to build energy efficient cities in Nepal to reduce carbon emission. This is followed by promoting energy efficient investment using low interest loans, giving rewards to companies using energy efficient technology, and also introducing net-metering to use rooftop as the solar power generation. Government and academic group also think that energy pricing should be used in industries as an incentive to reduce carbon emission.
30. The results of the survey further reveals that majority of the respondents agree that energy efficient building codes do not exist in Nepal. Most of the private players also think that energy efficient motors also do not exist in the market. Opinion among private players are divided on whether solar lights are an efficient option for industries. At the same time, while nearly 75% of them think that people are aware of energy efficient lights, it is not thought so among the government and academic respondents.

31. Regarding the actions of the Government of Nepal to reduce GHG emission, there is very low level of awareness on the strategy of reducing energy intake at the Brick Kiln and on solar irrigation pumps. The highest level of awareness exists on the government action on waste to energy projects and on rooftop solar projects.
32. **Error! Reference source not found.**Results show ranking of various government policies on a scale of their importance to implement. Both groups considered a) reducing traffic jams in cities, b) upgrading urban bus services, c) promotion of mini and micro hydro power in off grid areas, d) promotion of bio gas, and e) promotion of climate friendly agriculture to be the most important strategies of all with 100% of all respondents from NGO/CSO and over 95% of Government and Academics respondents agreeing to it.

Pakistan

33. Survey results show that of the strategies set by the Government of Pakistan, the two groups of stakeholders do agree on most of the strategies. Both groups like the idea of using rewards to make firms energy efficient. Government and academic groups also have a strong preference for using energy pricing to promote renewable energy use in Pakistan.
34. Survey results reveal that most people are aware that solar lighting is an energy efficient technology. Level of awareness on energy efficient consumer durables is low in Pakistan.
35. Survey results on the perception of stakeholders on government actions to reduce GHG emissions show that private sector and CSOs are least aware on use of solar irrigation, solar based desalinization and solar water heater to reduce emissions whereas they are aware of using waste to energy projects, clean coal technology and biogas technologies proposed by the Government of Pakistan.
36. Top 5 mitigation preferred GHG reduction strategies in Pakistan are: a) establishment of metro, b) reducing traffic jams, c) upgrading bus services, d) promotion of rooftop solar panels in cities, and e) modernization of power plants.

Sri Lanka

37. Results suggest that solar powered electricity among the top choices by the stakeholders. The private and CSO groups preferred support for mini and micro hydroelectricity projects over waste to energy and demand management strategies which is supported by government and academic groups.
38. Adoption of energy efficient technologies at home, offices and industries are important for reducing emissions. Results show that establishment of an energy friendly transport system is preferred by both groups of stakeholders. This is followed by encouraging park and ride system for commuters, rehabilitating railway systems, and up gradation of fuel standards. Private sector and CSOs also revealed more liking towards introducing bus rapid transit system then others as an energy efficient mechanism of transportation.
39. On the steps taken by the Sri Lankan government to reduce GHG emissions, our stakeholders' survey suggest that promoting investment for environmental conservation projects by companies, establishment of forest monitoring system, restoring degraded forests and/or forestations are most preferred compared to the government's policy of expanding solar and micro hydro projects in Sri Lanka.
40. Among the most preferred options for emission reductions are: a) solar grid connection using rooftop solar panels, b) improving traffic management, c) improving urban transportation services, d) solar home systems, e) wind energy based power plants, and f) waste to energy projects.

Overall Remarks

41. All the South Asian countries pledged to reduce their GHG emissions over the next decades. The global communities on the other hand, also agreed to provide financial and technical assistance to these economies. An efficiency argument, in this regard, is to find the least costly solution for reducing carbon emissions and for this, reducing GHG emissions in energy-inefficient economies is the best set of options.
42. Reducing emissions, however, requires investment in energy efficient technologies as well as developing efficient energy markets. In all of these countries, energy is a highly regulated sector with government controls at different levels. As such, effort by these countries to reduce GHG emissions will require significant investment by the government institutions. All the South Asian countries, however, are rated poorly in the Corruption Perception Index of Transparency International. CPI 2016 suggests that CPI for Bangladesh, India, Maldives, Nepal, Pakistan and Sri Lanka are 26, 40, 36, 29, 32, and 36 respectively. According to TI, any score below 43 (the average value of the index) implies that the countries are likely to be infested with a high degree of corruption in the public sector of these countries.
43. This diagnostic study is an attempt to see how the strategies for reducing GHG emissions in these countries fare with public perception. GHG emissions are directly linked with production and consumption pattern in an economy. In general, there are two classic strategies to improve efficiency in production and consumption: a) regulating the production and consumption using command-and-control strategies; and b) incentivizing the private sectors for amending their consumption and production behavior towards energy efficiency so that more production/consumption may continue with reduced GHG emissions. Furthermore, there are two distinct approaches in developing incentives for private sector. First, increasing availability of public goods that are complementary to private production and consumption through efficient energy production, and second, creating financial incentives to promote energy substitutions or energy efficiency in the private sector for both consumption and production.
44. It has been commonly argued that developing countries lack in resources and so energy efficiency can be achieved through investments in such a way that provisioning of public goods can be increased. This includes provisioning for alternative energy, energy switching, investment in urban infrastructure including transportation, energy production, etc. All the six South Asian countries have developed strategies like these so that large scale investments are required. All of these countries have also requested for access to global resources to ensure that these investments are made and that countries can reduce their GHG emissions.
45. The stakeholder's survey, in this study, provided an alternative to these. It shows that while there is not much opposition to the pledges made by their governments, the choice of instruments differs between government pledges in the INDC and public perceptions.
46. Study shows that out of 18 best policies suggested by stakeholders 11 of them are related to promoting GHG reduction using market based incentives, 1 of them is related to regulatory incentives, 1 of them is related to developing awareness and the other 5 are linked to investments. Interestingly, however, in most of the investments private sectors play a major role.
47. Clearly, this study provides an alternative approach to mitigation strategies for governments in South Asia. Given the level of corruption that persists in these countries, a more prudent policy alternative is to use economic incentives to promote energy efficient production and consumption.

Recommendations

48. The study therefore, recommends the followings:

    a. GHG emission reduction policies suggested by the governments in South Asia require a thorough scrutiny in the light of public perception and reprioritize their action plan for GHG reduction.
    b. Incentive based policies to promote energy efficient production and consumption should be prioritized to reduce GHG emissions in these countries.
    c. Development partners should provide assistance to these countries to examine their public policies in terms of tax, subsidy and other regulations to create incentives for firms to become energy efficient and thus contribute to reduce GHG emission.
