



Expanding India-EU Cooperation in Energy and Environment Sectors

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India and the European Union (EU) face multiple challenges in strengthening and broadening their partnership in the changing regional and global scenarios. Persisting global economic turbulence, eurozone crisis, security transition in Afghanistan, political instability in the Arab world, evolving security dynamics in the Asia-Pacific region, growing energy security concerns, looming threats of climate change, only to name a few, are transformative in nature. These issues can have multiple implications for both India and the EU. Although each issue merits a thorough analysis, this article will limit its focus to environmental challenges and renewable energy cooperation between India and the EU.

The changes in climate system are ‘unequivocal’¹ and can pose manifold challenges to livelihoods, subsistence, natural resources, agriculture, water, sea-level rise and health for the entire humanity. Poor people in developing countries, including India, who have limited capacity, are more vulnerable to differential impacts of climate change. Considering the enormity of challenges caused by climate change, international cooperation is essential for its mitigation and adaptation, and pursuing paths of sustainable development. The recent United Nations Conference on Sustainable Development at Rio de Janeiro, Brazil (Rio+20), from June 20-23, 2012, also called for strengthening international cooperation for promoting sustainable development, including the provisions of financial resources, capacity-building and technology

transfer to developing countries. Thus, cooperation between India and the EU is imperative for addressing the challenges of climate change and promoting sustainable development.

There are various areas for cooperation in coping with climate change, facilitating sustainable development, technological cooperation and creating business opportunities between India and the EU. Currently, energy and environment are high-priority areas for cooperation in India-EU partnership. India and the EU can work together in harnessing renewable energy resources, promoting energy efficiency, green building etc. India has emerged as an attractive destination for investment in the clean energy sector which can provide huge opportunity for European companies to tap the fast expanding Indian market.

Environment

India and the EU consider environment as a ‘strategic area’² in their partnership. Several issues concerning environment and climate change have been mentioned in their policy framework for bilateral and multilateral engagements. The Joint Action Plan (JAP) 2005 recognizes the interdependencies of India and EU in the areas of environment and climate change and calls for working together for creating the conditions necessary for sustainable economic development as well as playing their respective roles in establishing effective environmental global governance.³ The JAP 2005 also emphasizes on cooperation in clean development mechanism and to take practical initiatives for technological cooperation and widening access to clean technologies.⁴ Major areas for India and EU cooperation are energy, technology transfer, research and development, information and knowledge sharing, financing private sector projects in areas of energy etc. It is suggested that EU’s programmes and assistance can be mainstreamed in the framework of India’s National Action Plan on Climate Change (NAPCC)⁵ which has both adaptation and mitigation measures.

Renewable Energy

Emissions of greenhouse gases (GHGs) are primarily caused by burning of fossil fuels. According to International Energy Agency (IEA), among the many human activities that produce GHGs, use of energy represents by far the largest source of emissions.⁶ Clean energy is critical for promoting economic development in environmentally compatible manner. Fuelling its high economic growth and expanding access to clean energy is a huge challenge for India. Nearly 289 million people, accounting for 25 per cent of the population, have no access to electricity, and

836 million, accounting for 72 per cent of the population, rely on the traditional use of biomass for cooking in the country.⁷ Harnessing renewable sources of energy will certainly help in multiple ways. It will expand the access to energy and help reducing the GHGs emissions. Besides, uses of clean energy have several health benefits; for instance, poor people, particularly women, without access to modern energy, are faced with problems relating to indoor air pollution and bear huge health burdens as a result of high incidences of bronchitis, asthma, miscarriages and other health implications.

The JAP 2005 envisages energy cooperation between India and the EU. It states that India and the EU will work towards achieving safe, secure, affordable and sustainable energy supplies. India and the EU emphasized on the development of more efficient, cleaner and alternative energy chains, with special reference to renewable energy, promoting energy efficiency and energy conservation; developing clean energy technologies and identifying new technologies for renewable energy sources.⁸ The Joint Declaration for Enhanced Cooperation on Energy at the 12th EU-India Summit, 2012, expanded the areas of cooperation and included safety, sustainability, access and technologies. The Declaration states that India and the EU will focus their joint efforts in a number of key energy areas.⁹

Recent trends reflect that European companies involved in renewable energy are interested in India's renewable energy sector. Due to reduction in subsidies in Europe, they are looking for markets overseas. India has given a thrust to harness renewable energy sources not only to enhance the energy security and expand energy access but also to reduce CO₂ emissions. The National Solar Mission under the NAPCC aims to deploy 20,000 MW of grid-connected solar power generation and off-grid applications 2000 MW by 2022.¹⁰ European countries have shown interests in India's solar and wind energy sectors. European banks provide loans to renewable energy projects in India.

Improving energy efficiency is another key area that has the potential of India-EU cooperation. The National Mission on Enhanced Energy Efficiency aims to save about 23 million tonnes of oil-equivalent of fossil fuels annually by 2014-15. The Mission also targets to expand the use of more energy efficient equipment and appliances and to upgrade energy efficiency in buildings, municipalities and agricultural pump sets.¹¹ In the area of green building, it is important to note that the demand for more concrete buildings will come from rural areas of the

country. As majority of rural households will shift from mud house to concrete houses, low cost and low carbon buildings in the rural areas are needed. Thus, the EU and India need greater cooperation rather than remaining focused on green buildings for urban areas only. The IEA sees a huge potential of ‘energy efficiency’; calls it ‘hidden fuel’ of the future.¹² European technologies and practices in improving efficiency will be useful in India.

Research and development cooperation under EU’s Seventh Framework Programme (FP7) can also be promoted for innovation in renewable energy. Indian researchers and research organizations can participate in the research programmes as well. Recently, EU approved 8.1 billion Euro for investment in research and innovation in 2013. Energy and environment are among the thematic areas of cooperation for the two sides.¹³

Policy Divergence on Emission Cuts: Legal or Voluntary Approach?

Although climate concerns have been acknowledged by India and the EU and both have formulated policies and have initiated a number of measures to reduce the GHGs emissions and to promote sustainable development in their respective regions, their approaches to deal with climate concerns diverge at the international level. India and the EU found themselves diametrically opposed to each other in the international negotiations processes to formulate an international regime for reducing GHGs emissions. The EU differed with India and China over the legal status of the agreement on cutting emissions at the Durban conference in December 2011. The EU insists on legally binding measures for cuts in global GHGs emissions, whereas India’s arguments are primarily based on its policy of equity (in access to global atmospheric resources); and common but differentiated responsibility and respective capability. As one of the lowest per-capita emitters in the world (its per capita CO₂ emissions were 1.3 tonnes in 2008, which is three times less than global average, 14 times less than that of the United States’ and six times lesser that of than the EU’s)¹⁴, India is not in favour of an international regime that imposes a legal obligation to reduce emissions. However, the international community reached an agreement to negotiate legally binding measures by 2015 and implement them by 2020 at the Durban conference. India also criticizes EU’s move to impose a carbon tax on international airlines entering EU airspace. Indian Environment and Forest Minister termed it as ‘deal breaker’ and ‘unacceptable’ to India.¹⁵

With a large population below the poverty line and huge challenges of unemployment, infrastructure and services, it will not be prudent for India to agree on any environmental measure that has the potential to stifle its economic growth. India emissions-GDP intensity, excluding agriculture, has declined nearly by 25 per cent during 1994-2007 and the country has been targeting to further reduce the emissions intensity of GDP by 20-25 per cent by 2020.¹⁶ India has also announced voluntary commitment that its per-capita emission would never exceed the average of the per capita carbon emission of developed countries.¹⁷ On the contrary, the EU argues that the new global framework must be legally binding. Connie Hedegaard, European Commissioner for Climate Action, says, “the (legal binding framework) will signal that countries will follow through on their commitments and give confidence that all would deliver.” She underscored, “a voluntary pledge and review system would not provide these assurances.”¹⁸

Finance and Technology Transfer

Access to finance and technology is another critical area in reducing GHGs emissions and promoting sustainable development. The United Nations Framework Convention on Climate Change (UNFCCC) has estimated a requirement of \$ 200-210 billion in additional annual investments by 2030 to return GHGs emissions to the current levels. Further, additional investment needed worldwide for adaptation is estimated by the UNFCCC to be annually \$60-182 billion by 2030, inclusive of an expenditure of \$28-67 billion in developing countries. As enormous funds are needed for meeting the long-term financial requirements for adaptation and mitigation, developing countries, including India, have been arguing that a global mechanism for generating and accounting for additional resources, mainly from public sources, is essential.¹⁹ India criticizes industrialized countries for not providing enough support to developing countries in terms of access to technology and finance for promoting sustainable development.

The Rio+20 Declaration addresses the concerns of developing countries that additional resources and access to advance technologies are essential for promoting sustainable development. Advanced technologies in energy or transportation are crucial for facilitating sustainable development in developing countries. At the Rio+20 conference, India again advocated that additional finance and technology can be catalysts for many countries; and they could do more to promote sustainable development and green economy. It is pertinent to mention that most of the advanced new technologies are with the developed countries, thus, North-South

cooperation needs to be enhanced to access these technologies. Presently, most of the developed countries, particularly the EU and the United States, are in economic crisis and facing high level of unemployment. For instance the eurozone seasonally-adjusted unemployment rate was 11.1 percent in May 2012, which is the highest annual recorded since 2000. On the contrary, developing countries like India and China have been witnessing high economic growth and have emerged as new economic powerhouses in the world. Therefore, as expected, developed countries have not pledged any assistance at the Rio+20 conference, instead argued that additional finances would have to come through South-South collaboration, foreign direct investments, and the market. The EU reiterates its commitment to the Official Development Aid (ODA) level of 0.7 per cent of GDP, which seems unlikely to meet, particularly since Europe is in the midst of severe economic crisis.

Conclusion

Energy and environment are key elements of inclusive agenda for sustainable development. Although India and EU have taken several initiatives to facilitate cooperation in energy and environment, more needs to be done to achieve the optimum level of cooperation. Policymakers from both sides are mulling over how India and the EU can expand their relationship from its current economic dimension to security, non-traditional security, environment and energy issues. Expanding cooperation in the areas of environment and energy would not only help in addressing global challenges but also strengthen India-EU strategic partnership in the future. Thus, India-EU should explore the possibilities of expanding cooperation in the areas of energy and environment.

India and EU need to be flexible in order to accommodate each other's concerns on critical issues of bilateral and global importance. New Delhi and Brussels should find ways to converge their interests at global level in order to strengthen global environmental governance for effective international cooperation for reduction of GHGs emissions, promoting sustainable development and facilitating technological cooperation. The EU must recognize India's development challenges and should not insist on legally binding measures to cut CO₂ emissions because it is estimated that India's per-capita GHGs emissions would stay under 4 tonnes of CO₂ eq. in 2030-31 which is lower than the global per-capita emissions of 4.22 tonnes of CO₂ eq. in 2005.²⁰

Technology transfer should be promoted without conditionalities and cooperation in research and development should be enhanced in solar energy and energy efficiency areas. Apart from wind and solar energy, other areas such as small hydro projects, waste to energy generation, etc can be explored for broadening cooperation. Although India has already taken several steps for creating a conducive atmosphere for the renewable energy sector, it further needs to improve regulatory framework for attracting long-term investments in this sector, particularly the investment environment should be improved at the state level. Last but not the least, social acceptability of European technology is another issue that needs to be taken into consideration. India and the EU should enhance research for innovations in renewable energy that should be cost effective and suitable in India that has a predominantly rural population.

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Notes

- ¹ The Intergovernmental Panel on Climate Change, Climate Change 2007: Synthesis Report, Valencia, Spain, 12-17 November 2007, p-30.
- ² Delegation of the European Union to India (2012). EU-India Cooperation in the Field of Environment. Available at: [http://eeas.europa.eu/delegations/india/eu_india/environment/eu_india_cooperation /in dexen.htm](http://eeas.europa.eu/delegations/india/eu_india/environment/eu_india_cooperation/in dexen.htm)
- ³ Council of the European Union (2012). The India-EU Strategic Partnership: Joint Action Plan. Brussels, 7 September 2005, 11984/05 (Presse 223).
- ⁴ Ibid
- ⁵ Atteridge, A et al (2009). Reducing Greenhouse Gas Emissions in India: Financial Mechanisms and Opportunities for EU-India Collaboration, Report for Sweden's Ministry of Environment, Stockholm Environment Institute.
- ⁶ International Energy Agency, IEA (2011). CO2 Emissions from Fuel Combustion. Paris.
- ⁷ International Energy Agency, IEA (2011). World Energy Outlook 2011: Energy Access for All., http://www.iea.org/Papers/2011/weo2011_energy_for_all.pdf, p. 11.
- ⁸ Council of the European Union (2012). The India-EU Strategic Partnership: Joint Action Plan.
- ⁹ The Council of European Union, Joint Declaration for Enhanced Cooperation on Energy, 12th EU - India Summit, 6409/12, PRESSE 44, New Delhi, 10 February 2012.
- ¹⁰ Government of India. Ministry of New and Renewable Energy, Jawaharlal Nehru National Solar Mission.
- ¹¹ Government of India. the National Mission on Enhanced Energy Efficiency; and Kirit Parikh and Nicolas Stern (2012); and Aarti Dhar, National Mission on Enhanced Energy Efficiency Approved, The Hindu, August 25, 2009.

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- ¹² International Energy Agency, IEA (2012). Energy Technology Perspectives 2012: Pathways to a Clean System, Paris.
- ¹³ EU Approves 8.1 billion Euro Research and Innovation Budget for 2013, EU-India Update, Vol. 1, No 3, June-July 2012.
- ¹⁴ Parikh, Kirit and Nicolas Stern (2012), India's Low-Carbon Growth Strategy. The Indian Express, June 8
- ¹⁵ EUBusiness, India says EU tax a 'deal breaker' for climate talks, <http://www.eubusiness.com/news-eu/india-climate-tax.g06>
- ¹⁶ Prime Minister of India Speech at the Rio+20 Summit, URL: <http://www.uncsd2012.org/index.php?Page=view&type=12&actor=25&statement=990&nr=210&menu=76&str=&t=respondent>
- ¹⁷ Parikh, Kirit and Nicolas Stern (2012).
- ¹⁸ Connie Hedegaard, Climate change: India a constructive force in Durban, The Economic Times, Jan 9, 2012.
- ¹⁹ Ministry of Finance, Government of India (2012). Sustainable Development and Climate Change, Economic Survey 2011-12, p.294.
- ²⁰ Ministry of Finance, Government of India (2012). Sustainable Development and Climate Change, Economic Survey 2011-12, p.291.