

EU- INDIA THINK TANK TWINNING INITIATIVE 20-22

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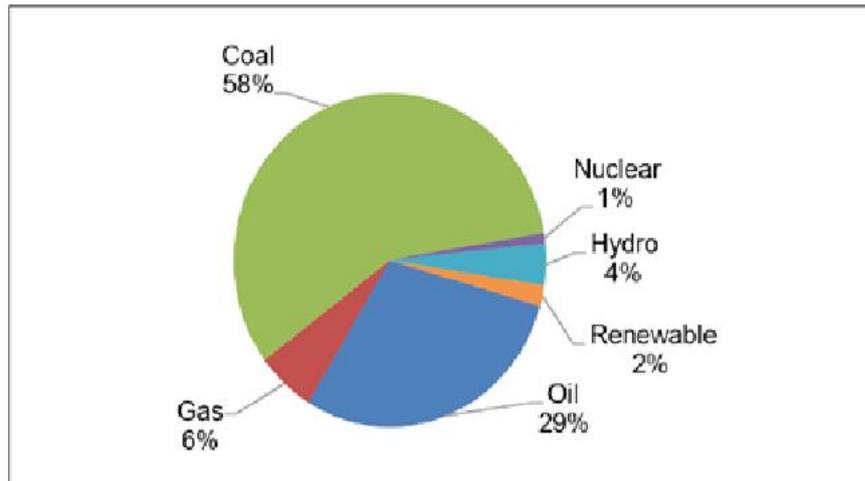
PRIVATE FINANCING IN RENEWABLE ENERGY

Identification of the problem & relevance to the strategic partnership (400-500 words) (25 points)

1. Environmentalism as a philosophy has gained social momentum with concerns for environmental conservation and improving the state of affairs all over the world.
2. The movement of “going green” has become stronger than yesteryears.
3. All sources of energy impact our environment in one way or the other. Fossil fuels like natural gas, coal and oil leads to air and water pollution, wildlife and habitat loss and also damages public health.
4. It leads to global warming emissions also. Above all, the fossil fuels are depleting day by day and we need an alternative to it in the form of renewable energy.
5. Though renewable energy resources such as solar, wind, hydropower, geothermal and biomass, do have some environmental impacts, it is considered safe and sustainable in the long run.
6. The year 2020 has seen a robust growth of renewable energy around the world this year, (Economic times, November, 2020) which is in sharp contrast with other energy sector like coal, oil and gas due to the disruption in economic activities triggered by the Covid-19 pandemic. (International Energy Agency, 2020).
7. India is projected to be the largest contributor to the renewable energy.

Figure 1 also depicts that India has a long way to go in terms of sustainable energy transformation.

Figure 1: Primary Energy Consumption in India in 2016



Note: Renewables (including biofuels).

Source: BP (2018).

8. India was one of the key players in attaining a global climate agreement in Paris in 2015.
9. The European Union (EU) and India established the “European Union- India Clean Energy and Climate Partnership” in 2016 where it intended to focus on collaboration in energy efficiency, renewable energy and integrate it in the energy system.
10. It was also decided to have additional focus in the areas of energy efficiency, smart grids and renewable energy.
11. India has an escalating demand for energy due to a large population and growing domestic product (GDP).
12. With huge deficit in energy infrastructure, India is focusing on energy efficiency and domestic production in all sectors including nuclear and renewable energy.
13. In its national action plan on climate change, India has set a target of generating 175 GW of renewable energy by 2022. IISD (International Institute for Sustainable Development)⁵ has advocated for the “financing green” approach.
14. This approach deals with assessing opportunities for financing projects that deals with sustainable use of ecosystem services.
15. Considering the above premise, we can say that India and European Union (EU) should work together, if they are looking forward to achieve the European Union- India Clean Energy and Climate Partnership.

Critical analysis of the issue (500-550 words) (30 points)

1. Renewable energy sector financing in India is influenced by a number of factors such as regulatory risks, perceived risks, foreign-exchange risks and technology related risks.
2. This can be because of the nascent phase of its development in the country.
3. These risks lead to a number of problems further compounding the problem of required finance.
4. The power to take decisions for energy investments does not lie with the centre alone, but also with respective state governments.
5. This leads to different market segments within the country, and India is not perceived as a single market by both domestic and foreign investors (GoI 2015a).
6. This fragmentation results in the market being considered as unpredictable and short-term which results in opportunistic behaviour by investors (GoI 2015a).
7. In addition to this, policy-level uncertainties also create lot of doubts in the minds of the investors, as a consequence of which, banks are also reluctant to give the necessary funds for the sector.
8. As renewable energy is considered a part of the larger power market, the problem of market segmentation also gets affected by the existing anomalies of the power sector in general.
9. For example, the balance sheets of supplying companies vary significantly depending on a number of factors.
10. This further creates obstacles in the inflow of private capital into this sector.
11. It has been often argued that given the Indian financial market and the complexities of green bonds, it may be doubted by investors whether funds gathered through green bonds will be utilized for the purpose for which the bond is issued.
12. This also depends to a large extent on the credibility of the bond issuer.
13. Even though the Indian banking system has made the requisite regulation to drive up the green bond market, its success depends mainly on the risk perception of such instruments by the investors (Sarangi, 2018).
14. The popularity of such new instruments among investors requires generation of awareness among investors, making the process standardized, and creating incentive mechanisms for both the issuer and the investors.
15. Investment in renewable energy is an unversed type of venture among the investors.
16. Due to the limited antiquity of renewable energy development in our country, investors do not always have historical data to show the performance indicators.
17. The performance indicators data are either not available or partially available.
18. This escalates the perceived risks of the banking system, which in turn enhances the cost of capital (Diacore 2016).

19. Not only this, even the accomplishment of the new instruments, such as green bonds, is based on the ground that the investors are made aware of the purpose of such bonds.
20. In developing countries, investors are often apprehensive about the purpose and use of such instruments, further compounding the problem of generating the necessary finance.
21. Renewable power is surmounting the difficulties caused by the pandemic, showing escalating growth while other fuels struggle and India and the European Union is going to be the driving force behind a record expansion of global renewable capacity additions of nearly 10 per cent in 2021- the fastest growth since 2015 (International Energy Agency report, 2020).
22. So, this creates further scope for focussing on the renewable energy.

Policy recommendations (600-700 words): (40 points)

1. The risks associated with financing various segments of renewable energy can be due to delay in process clearance.
2. This can be expedited by creating single window clearance provisions in all states of India as has been done in the states of Andhra Pradesh and Tamil Nadu, because these states have identified solar energy parks and zones to attract investors into the sector.
3. This can be replicated in other states as well to streamline the process of investment into the sector.
4. In the banking sector, the renewable energy sector is vulnerable to perceived high risks in the financial sector as it is a new entrant vying for investor's interest (Umamaheswaran and Seth, 2015).
5. This is due to the prevalence of asymmetric information within the domestic banking sector related to clean energy technological transformation and subsequent risks associated with regulatory and policy level (CPI 2012).
6. So, India and EU can work together to disseminate symmetric information to all concerned so that there is more clarity and less confusions.
7. If policy uncertainties are addressed in time, the IEA report estimates that global solar and wind power additions could each increase by a further 25 per cent in 2022 (International Energy Agency, 2020).
8. So, India and EU can together deliberate on addressing and sustaining policies that incentivises the renewable energy sector as this would lead to an increase of 25% (International Energy Agency, 2020).
9. Although the Indian banking system has created the necessary regulation to drive up the green bond market, the success of the green bond market largely depends on the risk perception of such instruments by the investors.

10. The acceptability of these kinds of new instruments among investors requires generation of awareness among investors of such instruments, making the process standardized, and devising incentive mechanisms for both the issuer as well as the investors.
11. So, the financial institutions of both India and EU can organize seminars and workshops to educate people about the importance of investing in green bonds.
12. From time to time, they can also disclose the details of finance green investments that has been in various sectors. This will go a long way in building the trust of investors.
13. Short term debt also aggravates the debt financing of the renewable energy projects in India. Debts are made available for a short term i.e., of a period of up to eight years, whereas a debt tenure of 12 to 15 years will be more promising given the life span of most of renewable energy projects (Mytrah and PwC 2015; CPI 2012). This problem can be attributed to a legacy issue of mismatch of asset-liability within the Indian banking system which happens due to the short-maturity of the bank deposits. As the Indian banking system has already experienced such incongruities with other infrastructure projects, they are now more cautious and calculative in lending funds for renewable projects.
14. Like Western Europe and North America, India and European Union can also deliberate on generating funds through Crowd funding which is an innovative method of mobilizing funds from large number of small private investors. For this to be successful, both sides should sit together and make a proper regulatory framework.
15. In India, corporate bond markets have not yet evolved as long-term investments in renewable sector (Mytrah and PwC 2015). So, EU and Indian experts can act in this direction and generate investor's confidence in this.

"The resilience and positive prospects of the sector are clearly reflected by continued strong appetite from investors -- and the future looks even brighter with new capacity additions on course to set fresh records this year and next."

IEA Executive Director Fatih Birol.

References:

Diacore. 2016. The Impact of Risks in Renewable Energy Investments and the Role of Smart Policies. Diacore Project Report. <https://www.ecofys.com/files/files/diacore-2016-impact-of-risk-in-res-investments.pdf>.

GoI. 2016. A Report by Energy and International Cooperation Vertical. NITI Aayog, Government of India. <http://indiaenergy.gov.in/wp-content/uploads/2017/09/Knowledge-Initiatives.pdf>.

Sarangi, G. K. 2018. Green Energy Finance in India: Challenges and Solutions. ADBI Working Paper 863. Tokyo: Asian Development Bank Institute. Available: <https://www.adb.org/publications/green-energy-finance-india-challenges-and-solutions>.

Umamaheswaran, S., and Seth, R. 2015. "Financing Large-Scale Wind and Solar Projects—A Review of Emerging Experiences in The Indian Context." *Renewable and Sustainable Energy Reviews*, 48: 166–177.

https://ec.europa.eu/clima/news/articles/news_2016033101_en

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2015:80:FIN>

World Bank Group, Population Data, available at <https://data.worldbank.org/indicator/SP.POP.TOTL?locations=IN>

World Bank Group, The World Bank in India: Overview, available at <http://www.worldbank.org/en/country/india/Overview>

<https://www.iisd.org/sustainable-recovery/news/mobilizing-private-finance-for-nature/>

IEA. 2015. *India Energy Outlook 2015*. Paris: International Energy Agency. https://www.iea.org/publications/freepublications/publication/IndiaEnergyOutlook_WEO2015.pdf

Mytrah, and PwC. 2015. *Renewable Energy's Transformation of the Indian Electricity Landscape*. Mytra Energy Limited and PwC India. <https://www.pwc.in/assets/pdfs/publications/2015/renewable-energys-transformation.pdf>
