

Editorial

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Starting from the Rio+20 in 2012 to adoption of Sustainable Development Goals in 2015 and finally the Paris Climate Agreement, also in 2016, the global community was clearly showing a preference for a sustainable future. However, the euphoria around these suddenly received a jolt with the US withdrawal from the historic Paris Agreement. Fortunately for the world, other nations have so far resisted the temptation of following the US, instead, they reiterated their commitment to the Paris Accord. This, however, means achieving the climate target will be far more difficult as the world was anyway not confident of meeting the 2°C temperature target even with the Paris agreement. Hence, nations, the developing countries in particular, will need to commit more resources for climate adaptation. This might also mean that they will find it difficult to devote adequate resources for climate mitigation, whereas the spirit of Paris will mean they take mitigation more seriously.

Energy and water are the two resources that are most intricately linked with the phenomenon of climate change. These are the two issues that have been covered in this volume. While use of fossil fuels has been the major cause of climate change, the impacts of climate change are likely to be felt in the theatre of water resources. Receding glaciers, drying up of rivers and water bodies as well as falling level of ground water are important parts of the overall environmental degradation, and they are likely to be accentuated by the impacts of climate change. Hence, adaptation to climate change will also be centred on maintaining water security for agricultural, industrial as well as domestic uses. Building water-secured cities will be among the major challenges that many countries will face in the context of climate change.

It is well accepted that reduction in fossil fuel subsidy will be an appropriate move towards reduction in the use of fossil fuels and thereby a reduction in environmental degradation as well as fall in greenhouse gas emission that causes climate change. However, the question is that if such a logic is so straightforward or it may entail some unintended consequences as well. The answer lies in how people adjust to such changes in prices of fossil fuels. If the fossil fuel concerned is kerosene, that is used widely by the poor people, then the social and economic impacts are obvious. But what is little understood is its impact on the environment itself. If it is in the context of Africa, then such a step can lead to people moving towards firewood that might cause deforestation and thereby reducing the ability of the environment to sink carbon and hence defeating the very purpose for which subsidy is withdrawn and at the same time causing economic and social stress. Hence, the ideal policy response would be to take appropriate measures to make clean fuels available to people rather than just cutting down subsidies.

On the energy use front, countries are moving towards renewable energy, solar power in particular, for climate change mitigation. However, despite substantial progress in recent years, solar energy is yet to achieve the level of efficiency so that it can compete well with other alternatives. This sector

is thus in need of substantial technological change and one way of pursuing such change could be to look for alternative materials that are used to make photovoltaic cells. The other side of reducing energy related greenhouse gas emission is to improve energy efficiency. While focus is often given to technological innovation, there are other ways through which efficiency can be improved. To this end it is important to develop a better understanding of factors that determine demand for energy in different sectors and uses.

One silver lining that has been highlighted by many in the context of the US withdrawal of the US from the Paris Accord is that this has not been demanded by the US business except in some quarters. While business also needs to adapt to climate change and hence it also has vested interest to engage in mitigation initiatives to sustain in business, climate actions by governments and non-government actors also create business opportunities. Hence, at least a substantial part of the business in the US might remain engaged with climate initiatives despite government withdrawal. This is true for many other countries and particularly in emerging economies.