

Why Effective Global Climate Governance Might Just Remain a Utopian Dream

🕒 25/04/2016 👤 by Nandan Sharalaya (<http://www.decentneta.com/author/12377>)

175 countries signed the historic Paris climate deal in New York on 22nd April to coincide with International Earth Day, a deal that is being seen by many as our last chance to stabilise carbon dioxide concentration at 450-550 ppm and limit change in temperature to 1.5-2 degrees.

Speaking at the event, actor Leonardo Di Caprio's words reiterated the desired urgency,

“*after 21 years of debates and conferences, it's time to declare no more talks, no more 10-year studies, no more allowing the fossil fuel companies to manipulate and dictate the science and the policies that affect our future. This is the body that can do what is needed.*”

Whether this deal signed effectively puts us on the pathway to a secure climate future is debatable. It does initially succeed in bringing consensus to climate talks but further success depends on a whole range of uncertain and broad political and economic outcomes.

When British Prime Minister, Harold Macmillan, was asked what was the most difficult thing about his job, he had famously replied ‘*events, dear boy, events.*’ Taking a cue from Macmillan’s answer, we look at 4 key events that might prove to be spoil sports in our fight against climate change

The case for Renewable Energy is robust, but not compelling enough just yet

The rapid expansion of renewable energy sources over the last three decades can be attributed to various learning spillages as a consequence of advances in technology and institutional support policies like feed in tariffs. These support mechanisms have helped mask the risks that are otherwise associated with large-scale investment in a nascent technology.

Currently, renewable energy sources currently accounts for roughly 13% of the world energy mix and has come close to achieving grid parity in economies like Denmark, Spain and Germany. Increased state capacity in promoting renewables like solar, wind and biofuels predominantly has proved to be a boost for these industries. The Brazilian model of ethanol production (the state driving the energy agenda picking its ‘winners’ and ‘losers’) and its impetus to hydropower has seen Brazil meeting its primary energy requirements through renewables.

However, none of these measures have been able to challenge the dominant position of fossil fuels. While the subsidies for renewable energy in 2012 stood at 101 billion dollars, subsidies to fossil fuel based industries were close to 554 billion dollars in 2012, an amount five times larger than those offered to renewables. The shale gas revolution in U.S.A and new found deep water oil resources in Brazil that is expected to deliver an output of 6 million barrels a day by 2035 has further strengthened the economic case for oil and gas. With demand for oil slated to increase to by 27% by 2035, the same is expected to account for a towering 111 million barrels a day.

Furthermore, the expansion of transportation and an exponential increase in world population particularly in India, China and the African continent has also fuelled the growing demand for energy. The world population is expected to rise from 6 billion to 9 billion by 2050 with China expected to match the consumption levels of USA by 2050 and India expected to add a billion cars on its roads. Meanwhile, China has continued to place its trust on coal fired power generation by adding on an average, two coal power stations per week. Coal fired power generation now makes up a staggering 80% of its overall energy production.

“ The international Energy Agency (IEA) predicts a rise of more than 45% in world energy demand by the year 2030. In this scenario, even if 25% of this demand is satiated by fossil fuel based energy production (as is evident from the Chinese example), the best efforts of every nation will prove to be insufficient in dealing with the 2-degree target.

Uncertainty driving the Nuclear Energy agenda

The case of France that has heavily placed its trust on nuclear energy with the same accounting for 80% of its energy mix, is a positive energy blueprint when viewed under the climatic lens of shifting the burden from fossil fuels to a low carbon energy source. However, a changing nuclear energy paradigm in a post Fukushima world coupled with an increasing number of security threats to nuclear installations puts France at the mercy of ‘focussing events’ and negative policy and political implications associated with them.

Post Chernobyl and Fukushima, several countries like Germany have assessed their stance on nuclear energy and many are in the process of phasing out the technology. The same has been driven by little or no solutions to the quandary of a safe radioactive waste disposal mechanism.

Moreover, a world energy scenario requirement of 35TW would necessitate a thirty times increase in nuclear capacity from the levels in 1960. The same is tantamount to instituting a facility every five days that is capable of a minimum 1 GW of electricity production. Under the current regulatory framework and diminishing public support for nuclear energy, the same remains herculean if not impossible to be accomplished.

Decreased Public Spending in Research and Development

Research and development plays a crucial role in the discourse on combating climate change as it is directly linked to two factors that are at the core of the climate change disagreement-technology transfer and adapting to climate change (geo-engineering, carbon capture and storage). Over the last twenty years, there has been a tenfold decrease in public energy R&D investments. In the United Kingdom, these numbers decreased from 0.15% to 0.01% as a share of GDP while it decreased from 0.15% to 0.03% in the US.A

“ Over the next ten years, commercial coal plants in the developed as well as developing world will need to adopt carbon capture and storage technology (CCS) and integrate the same into their system, if countries are to give themselves any realistic chance of meeting their emission targets by 2050.

According to climate expert Lord Nicholas Stern, this would require feed in tariffs and subsidies to the tune of \$ 5 billion per annum. While the development of C.C.S technology saw pronounced interest in the initial few years in the United States of America, European Union and Australia, the global financial crisis of 2008 and the sustained liquidity crunch it brought in its strides, a very low price on carbon coupled with an otherwise weak regulatory framework contributed to deranging the momentum on commercialisation of this capital intensive technology.

With very high capital requirements, least developed economies and island nations will be unable to make little or no progress in their mitigation efforts unless the technological know-how is made available to them by the developed economies.

Private actors remain unaligned in the climate change battle

There is also the growing scepticism that private actors have shown no substantial support or interest in dealing with climate change. There are various examples to prove this assertion. The ruling elite in countries like China and Russia have forged close ties with fossil fuel based energy sectors thereby strongly influencing their domestic energy policy.

In a report released by the journal 'Climatic Change', author Richard Heede shows how 90 companies in the world are responsible for two-thirds of the current world emissions. These include oil majors like Chevron Texaco, Exxon Mobil, BP, Shell etc. Some of these companies continue to fund climate change denial campaigns as well. Moreover, the melting of the Arctic glaciers as a result of global warming is in fact proving to be a boon for private corporations who have jumped to capitalise on the vast oil reserves that have suddenly become accessible.

Going forward, there is need for a manifold increase in research and development of renewable energy technologies. If governments are not willing to spend, initiatives like the Bill Gates backed Breakthrough Energy Coalition could prove to be suitable alternatives.

Escaping the existing fossil fuel trap demands a comprehensive reorientation from existing socio-economic structures. An untapped growth potential within developing countries may thus be realised by adopting an approach that seeks to amalgamate the rapid development of renewable energy with energy efficiency measures.



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