



Energy Review

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Adviser's Note

COVID19 Impact on the Global Energy Sector

The COVID19 outbreak has unveiled the soft underbelly of the global economy and the world energy market. The nationwide lockdown announced in several countries has significant impacts on the power sector development. Facilitating clean energy access to the poorest sections of the society has been undeniably hampered due to this. Not only the equipment manufacturing related to the renewable energy sector but also the deployment of these facilities will not be easily recovered as all the segments of renewable energy value chain began to face the crisis in terms of economy and human resources. This raises critical questions about the world's ambition to develop a greener, cleaner and sustainable society propelled by the energy transition.

Can the current slowdown in the global economy and energy sector development offer more environmental benefits than what the clean energy initiatives of different countries could offer in the long term?

-Dr Nandakumar Janardhanan

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Challenges Ahead in the post-COVID19 World Order

Exclusive interview with

Dr Ashutosh Misra

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As the world is facing a serious outbreak of COVID19, how effectively is Australia responding to the situation?

Australia has so far reported over 6,000 cases of COVID19 positive patients. In mid-March, the Scott Morrison government announced a three-legged plan: first, protect Australians' health; second, secure Australian jobs and livelihood; and third, strategise Australian economy's bounce back.

First, with a view to save Australian lives, from 1st February 2020, Australia put an entry ban on foreigners and allowed only permanent residency holders or immediate family members of Australian citizens and PR holders, who reportedly have travelled from or through mainland China. Temporary visas were also suspended at that time. The Government also executed the evacuation of Australians stranded in Wuhan, the mainland of China and around the world and made it compulsory to follow a 14-day mandatory self-quarantine policy.

Australia has refrained from using the word 'lockdown' to prevent unnecessary anxiety

among the masses but has nonetheless imposed strict restrictions barring going to work or school, buying essential commodities and seeking medical care or exercise, fulfilling carer responsibilities, attending wedding or funeral, home relocation, extending emergency assistance or going to donate blood.

All places of worship, businesses, restaurants, recreation complexes and retail shops remain closed and only big grocery stores, stationery stores, hardware stores and liquor shops remain open for business, where people do essential buying but within the social distancing rules and without spending too much time in those outlets.

All states have shut their borders and indoor and outdoor gatherings cannot have more than two people and a distance of 1.5 meters has been advised between two people outside.

Those violating these measures will be sent to six months in jail or fined \$11,000 in New South Wales. Victoria has \$1,600, Canberra up to \$8,000, Queensland \$1,330 and Western Australia \$1,000 in fines for breaching by individuals. The Police are doing regular patrolling and warning people, failing which fines are being slapped on violators.

There is no definite indication about how long these measures will remain in place and will only be determined by the effectiveness of government measures in flattening the curve.

Second, to save lives and prevent the spread of the virus, the federal government has also announced a \$2.4 billion national health package and state governments have increased the number of tests of suspected cases, regularly monitoring confirmed cases, strictly

implementing interstate travel restrictions and opening more fever clinics.

The package will provide \$100 million for Medicare service for people stuck in home isolation or quarantine to avail health consultations over the phone and video conferencing.

About \$25 million will be used to facilitate home delivering of medicines and \$5 million for enabling electronic prescription for patients. Another \$50.7 million will be spent on running 24x7 hotline for patients. Over \$200 million is being invested in setting up new respiratory clinics and addition \$58.7 for air medical services for people in remote areas. For pathology tests, the government will also reimburse all costs for testings.

A total of \$101.2 million is being pumped into boosting aged care with additional training of staff and recruitment. The federal government will also foot 50% of the expenses incurred by states and territories hospitals in dealing with COVID19 cases. Another \$30 million has been allocated for further medical research on the vaccine and developing anti-viral and respiratory medicines.

Over \$1 billion is being spent on acquiring and providing medicines, face masks and personal protective equipment for patients and health care staff. Also, \$30 million will be used for disseminating regular information, advice and updates on COVID19 for people in the print and electronic media in over 20 languages.

Third, to support business under stress and ensure a speedy bounce-back of the economy the Federal government has released a \$320 billion

stimulus package so far which will also help Australian households. Through the *Job Keeper Payment* support, the package will provide \$1,500 per fortnight for each employee to businesses through the Australian Taxation Office to help them retain their employers, and prevent them from going on government welfare payments. An additional \$550 per fortnight will also be paid to eligible people through schemes such as Jobseeker Payment, Youth Allowance, Parenting Payment, Austudy, ABSTUDY Living Allowance, Farm Household Allowance and Special Benefit. Every household receiving Family Assistance and pensioners will be paid two separate instalments of \$750 to encourage them to spend it for attaining acquiring essential commodities and help the economy. People have also been advised to use up to \$10,000 from their superannuation funds, if necessary. The Federal government as also announced a moratorium on business and household eviction by landlords due to economic difficulties, and financial institutions have been encouraged to wave fees on transactions and also reduce interest rates to help business and households.

India and Australia share very strong bilateral relations especially in terms of government to government, industry to industry and people to people engagement. To what extent India and Australia have been collaborating on their fight against COVID19?

Australia-Indian Strategic Partnership is a significant bilateral relationship which has been growing steadily since its founding in 2009 as an understanding between former Prime Minister Kevin Rudd and Manmohan Singh. Their current bilateral trade is close to \$30 billion and

is expected to go up in the next decade or so. A comprehensive report prepared by Mr Peter Varghese, 'An India Economic Strategy to 2035' highlights that India has the potential to become one of Australia's top three export markets and investments. The report identifies ten key sectors for bilateral trade inter alia, education, agribusiness, resources, tourism, energy, health, financial services, infrastructure, sport, science and innovation. India has also developed a complementary 'Australia strategy' led by Ambassador Anil Wadhwa. Both sides launched discussions in 2011 on Comprehensive Economic Cooperation Agreement in order to formalise a Free Trade Agreement, but it has eluded both sides till date.

With regard to tackling COVID19, Prime Minister Scott Morrison and Narendra Modi held a telephonic conversation and agreed to share mutual experiences and strategies to deal with the pandemic, including research. In a recent development, the Hyderabad based Indian Immunologicals Ltd signed an agreement with Griffith University to build research collaboration to develop a 'Live Attenuated SARS-Cov 2' vaccine using latest codon de-optimization technology. Both sides are already collaborating on developing Zika virus vaccine which is currently in the pre-clinical toxicology testing stage.

Both sides have also agreed to ensure the safe and early return of citizens stranded in both countries. Over 6,000 Australian remain stuck in India, but 444 Australian citizens have just returned from Mumbai through a chartered commercial flight of Lion Airlines.

What are the post-COVID19 changes you could foresee with regard to the power equations in international relations and geopolitics?

This is a complex question at this point to answer as the inchoate pandemic continues to cast its impact and expand by the hour globally. This question begs a separate thesis and very difficult to answer in such a short space. Nonetheless, it can be safely said that post-COVID19 international order will certainly look quite different in international trade relations, standing and credibility of big powers especially the US and China and growing respect for India for its role in countering the pandemic and credibility of international organisations. The World Health Organisation has already drawn severe criticism in its handling of the pandemic and will continue to draw attention in the post-COVID19 order. The US has already indicated withdrawal of funding to the organisation to convey its angst at the latter's complacency and handling of the pandemic. Several UN agencies, including the UNESCO have been drawing criticism from many states, over and above the unending debate on the reform of the United Nations itself, specially the Security Council. United Nations and its agencies were created after the end of the Second World War to ameliorate the inefficiencies of the League of Nations, created after the end of the First World War. COVID19 can be seen as the third world war which has had a similar impact in terms of causing human casualties (although in lesser numbers), battering the global economy and not leaving any patch on the world map unaffected. In this context, the failure of the international organisations and big powers in tackling the pandemic, and impressive global role of states

like India, are reminders that post-second world war institutional organisations desperately need reforms to address new realities.

American journalist Fareed Zakaria, in an interview with an Indian media outlet, said that that in the post-COVID19 international order, global travel will be hampered and difficult and globalised world will be deglobalized in goods and services, at least this a message coming from the European experience. He says that a global threat like COVID19 solicits a global and human response and the world must shun parochialism and build collaboration and cooperation. Institutions like WHO can only coordinate but we need global governance and not a global government. He believes China's despite its medical assistance to the needy states will struggle to draw respect from democracies. There will be greater questions posed on accountability, transparency and individual rights, and China will be judged from those parameters.

American diplomat and politician Henry Kissinger says that the COVID19 experience has reminded that the response needs to be collaborative and we need to heal the wounds of the global economy and the education, businesses, sports and health sectors. Liberal order will have to be preserved more steadfastly.

The post-COVID19 order will see international respect for India grow manifold. As most world leaders focused internally, PM Modi also initiated a regional response of the South Asian Association of Regional Cooperation (SAARC) and created a SAARC Emergency Fund to help regional states deal with the impact. Australian PM Scott Morrison praised his SAARC initiative

and pledged support for his G-20 initiative to build a global resolve against COVID19.

PM Modi also extended India's help to over 30 countries by supplying the 'game changing' drug Hydroxychloroquine (HCQ) and an anti-pyretic paracetamol. The US has been one of the major beneficiary. The Brazilian president Jair Bolsonaro thanked PM Modi for easing restrictions on the export of HCQ. He compared India's willingness to send the drug to the legend of the monkey god Hanuman in the Hindu epic 'Ramayana', who brought Sanjeevani (lifesaving medicine) from the Himalayan ranges for the injured brother of Lord Ram in the battle against the demons. India, a world leader and producer over 10% of the world's low-cost generic drugs including HCQ, also sent medical teams to Kuwait and supplied masks, gloves, goggles, ventilators to other countries.

With over 1.7 million cases reported worldwide so far, COVID19 has already cast two indelible impressions on public memory for posterity: first, how the industrialised and developed west venerated for its advancements in medical sciences and public health care system became a helpless epicentre of its scourge; and second, how India a country of over 1.3 billion people with an underdeveloped public healthcare system, regional disparities and poor human development indices became an exemplar of social cohesion to tackle COVID19.

Perceptions about China are already changing and will change further. World economies will try to diversify trade and supply-chains and search for alternatives to China as a trade partner, something which has been gathering steam for some years now, in the wake of China's aggressive

policy postures in the Indo-Pacific. The US is contemplating a speedy exit from China and Japan has already allocated \$2 bn to help Japanese multinationals to move out of China. These are opportunities for India to tap into in the post-COVID19 world order. In sum, the credibility of both, leaders and institutions will face severe scrutiny by states deeply affected by the pandemic, in a bid to shape a post-COVID19 world order that is better geared to handle such global challenges more effectively in the future.

The COVID19 has undeniably put a burden on the global economies in effectively addressing the climate change crisis. To what extent do you see that countries would be able to regain strength in their fight against climate change in post COVID19 years?

The climate change debate had been gaining both intensity and momentum globally, more so following the massive bush fires in Australia and in the jungles of Amazon. At the “UN Climate Action Summit 2019: *A Race We Can Win. A Race We Must Win*”, Greta Thunberg made an explosive entry with her emotional appeal to world leaders and took the world by storm. The summit was accompanied by climate change protests across the world, which unfortunately was brought to an abrupt end due to the rise in COVID19 cases and the need for imposing social distancing measures.

The world, ever since, has been completely subsumed by COVID19 scare and debate rendering issues like climate change, pushing it completely out of the national and global agendas. To what extent will the debate on climate change retain its vigour and purpose

remains a big uncertainty at the moment. There is no denying the fact that one short term positive effect of global lockdowns has been a much greener environment with drastic improvements in air and river water quality and reduction in greenhouse emissions. There are no double thoughts on the linkage between greener environment and better public health but the question still remains, as before: what will it cost?

In the wake of COVID19 impact on global economies, there is already an indication that many European Union leaders may choose to shun the emissions trading scheme and revert to old industrialised ways to kickstart the economies which will be a huge body blow to climate change movement.

Therefore, it will require a towering political-will to strike the right balance between the imperatives of economic revival and a greener planet. Even the protagonists concede that switching to a sustainable economic way of life requires enormous financial investments, and finances will be the main hindrance in the post COVID19 order.

What is the likelihood for health, agriculture and environment sectors getting prioritised in the post-COVID19 scenario, especially in the developing economies?

In the post-COVID19 world order, non-traditional security challenges will regain the centre stage in academic discussions and policymaking, not only in the developing economies but also in the developed and industrialised states. The sight of westernised and developed states struggling to provide adequate healthcare support to its citizens will remain

etched in people's memory for a long time and become the lynchpin for states' renewed focus on improving human development indices, especially in primary health. Since COVID19 is having a profound impact on global economies, the developing economies will feel the heat even more, which will impede their effort in rebuilding their healthcare services and meeting their climate change commitments.

For Australia and India bilateral trade, education and tourism have become a major casualty of the pandemic and as trade through air and sea reduce, agribusiness and agricultural export will be severely affected on both sides. For India, which recorded a trade surplus of over \$15 bn in exports in 2018 in agricultural, fishery, and forestry goods the impact will be significant. Also, as a leading exporter of Basmati rice, cotton, refined sugar, meat etc. India's agricultural sector will remain sluggish, until the airborne and seaborne trade is restored to pre-COVID19 levels.

For not only India but also other developing economies, access to capital will be the key for reviving health, agriculture and environment sectors and recovery is estimated to be slow and long-drawn, and may differ for different sectors. Unfortunately, the Indian economy was already witnessing a slowdown prior to the COVID19 outbreak and may, witness a wide range of austerity measures, wage cuttings, job losses, reduced government expenditures and roll back of government schemes to tap into every single penny to refill the government coffers and build capital to invest judiciously into various sectors based on priorities set by the governments. Unfortunately, the environment sector may be

pushed aside, and health and agriculture may be accorded greater urgency.

(The interviewee, Dr Ashutosh Misra can be reached at director@iaie.org.au) ■ □ ■

The Political Economy of Energy Transition in Africa: The Case of Ghana and South Africa

Chigozie Nweke-Eze

Growing demand for fossil fuels and increasing greenhouse gas emission pose the greatest challenge for sustainable development globally. How to cater for country's energy needs without undermining or compromising economic and environmental endeavors, remains a critical issue. Moreover, it is unlikely that countries would sacrifice meeting their socio-economic development goals in pursuit of climate mitigation goals. Therefore, in the developing world, the political economy of renewable energy transformations poses some important and difficult questions of research concern. Although developing countries are expected to take lead in terms of policy commitments to new technology research, innovation, investments and implementation activities, **the critical role of regulatory mechanisms, policies, and institutions have been emphasized.** In addition, for the policies to be effective, they have to be localized especially in the African context. Here, country-specific governance and political economy considerations take a leading role.

African countries have been facing perennial power scarcity over the years. There is bound to

be additional strains on the countries' power sector due to rising energy demand fuelled by increase in population growth, rapid urbanisation and economic growth. The abundance of renewable energy (RE) resources in Africa provides an opportunity for providing clean energy access to people, while curbing energy related emissions. In 2015, [41 of the continent's 54 countries in Africa have introduced one or more renewable energy targets](#). This is a significant improvement as until 2005, neither policies nor targets existed for giving importance to non-conventional renewable energy development and deployment at that magnitude. To date, about 13 ECOWAS member states have now set RE targets ranging from [5–35% of national energy generation to be achieved by 2020–2030](#). Despite the design and implementation of attractive policies for facilitating renewable energy development and transition in these African countries, deployment of non-conventional renewable energy has slowed due to the lack of the right mix of policies to address unique domestic challenges. The case of Ghana and South Africa presents two of the best examples of this paradox in Africa.

Ghana, like several other African countries, does not have sufficient domestic refining capacity for petroleum and therefore depends entirely on foreign sources for its majority of energy needs. As a result, it has suffered perennial power rationing over the years. The way forward is to exploit the abundant renewable energy resources in the country for sustainable electrification—as backbone for socio-economic development. Ghana enacted the Renewable Energy Act in 2011 to provide for the development, management, utilization, and adequate supply of renewable energy for generation of heat and

power and for related matters. It aims to increase the share of sustainable electricity in the national generation mix to 10% by 2020. [Ghana is one of the leading countries with substantial RE regulatory and fiscal policies on the African continent](#). The right mix of policies, which can address unique domestic challenges to help achieve its specific development goals, however remains insufficient. For instance, notwithstanding the substantial RE policies supporting developments in the electricity sub sector, [deployment of non-conventional RE has slowed especially for grid-tied electricity where the share is less than 1%](#).

In terms of South Africa, its economy is structurally dependent upon energy intensive growth, driven by mining and minerals beneficiation and reliance on abundant sources of low-cost coal for 96 per cent of its electricity. [Its electricity utility Eskom is the country's and Africa's largest greenhouse gas emitter](#). In recognition of this unsustainability and to encourage RE transition, the country introduced a 2c/kWh levy on electricity generated from non-renewable sources in 2009. Furthermore, South Africa's energy sector is also characterized by its unique social, political and economic legacy of apartheid which continues to impact the contemporary politics of the country's energy transition in profound ways. Before the end of apartheid in 1993 only 36 per cent of the population was connected to the electric grid, [with inequality of access defined by race](#). While Eskom's unprecedented expansion programme between 1994 and 2000 saw 2.4 million houses connected to the grid, one third of the country's population is still without access to electricity, particularly in rural areas. Millions of low-income houses do not have enough regular

income to buy electricity, even if they are grid connected and account for **no more than 5 per cent of national electricity consumption**.

(The author is a PhD scholar at the Institute of Geography, University of Bonn, Germany) ■ □ ■

The Geopolitics of Energy Transition

Shilpa PM

Concerns about climate change are increasingly shaping academic debates on international relations in general and energy studies in particular. The advocates of climate mitigation action are highly **criticizing** the energy sector for the adverse impacts it has created from its past emissions. On one side, the demand for energy resources has increased highly in countries such as China and India along with other developed nations, whereas on the other side, the energy sector is under high pressure due to the climate crisis. Studies show that the **energy sector contributes two-third of the total greenhouse gas emissions**, hence adequate mitigation actions in the field is very much essential. However countries are reluctant to sacrifice the fossil fuel driven economic growth. As debates are increasingly favouring alternatives energy development, the global energy geopolitics, conventionally reflected in the fossil fuel market has begun to change.

The geopolitical and geo-economic scenarios always made it clear that the growth rate of a country always remains directly linked to its energy consumption. Hence the need for efficient and cheap energy resources is unavoidable. For a very long period, the world energy market was

depended solely on the fossil fuel sources. This made the conventionally oil rich countries Persian Gulf region the hub of energy geopolitics. However, in the recent decades, as energy has become the central element in climate mitigation, the need for energy transition gained more importance.

As early as the beginning of 1970s, following the **oil crisis**, countries have begun heavily investing in the alternative energy development. This was the turning point of modern energy policies in many European countries. The formation of the International Energy Agency and the search for alternative energy resources catalysed the promotion of clean energy policies in the Western world.

The proclamation of **the Kyoto Protocol** in 1997 and the climate negotiations under the auspices of United Nations Framework Convention on Climate Change (UNFCCC) gave further momentum to the alternative energy development.

The recent decades witnessed the remarkable economic growth of China and India. Their energy consumption rate also increased in these years. In order to diversify their dependency on geopolitically volatile supply regions these Asian giants to make substantial changes in their domestic policies to promote alternative energy development. The global climate negotiations and their commitments under the **Paris Agreement** gave further impetus to alternative energy development.

Both China and India have ambitious commitments under the Paris Agreement and the major mitigation plans of these emitters are

focused on the energy sector. Though fossil fuel constitute the lion's share in the energy mix, development of renewable sources is increasingly gaining momentum. For example, in India, the [contribution from solar, wind and other renewables has increased](#) substantially in the recent years.

On the other side, China is now [leads in the global renewable energy development](#). It is the largest producer and exporter of solar energy equipment. Its entry into the solar energy market is the key reason for the reduction of solar PV cells in the world market.

Countries such as Australia, Germany, and France are also highly invested in more research and development in the field of renewable energy technologies such as efficient solar batteries, electric vehicles and all. Research in the field of metallurgy is believed to bring revolution in the field of renewable energy, and leading energy industry players globally are deeply involved in research in this direction.

All these developments indicate a clear shift in the global energy landscape and the politics associated with it. Renewable energy players from across the world are competing to secure their geographical presence in newer markets to sell their technology and equipment. Innovations and research and development have been gaining more and more importance in the energy sector. Though it is difficult to predict if world will completely shift its dependency to clean energy, the remarkable growth witnessed in the alternative energy domain indicate countries and industries worldwide playing more active role in the non-conventional energy arena. All these churning ups are shaping a newer dynamics to

global energy geopolitics, where alternative energy industry emerges to be key players.

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