Applied Science and Innovative Research
ISSN 2474-4972 (Print) ISSN 2474-4980 (Online)
Vol. 5, No. 3, 2021
www.scholink.org/ojs/index.php/asir

Short Research Article

Global Governance Illusions

Jan-Erik Lane[1]

[1] Professor Emeritus, University of Geneva, Switzerland

E-mail: janeklane@gmail.com

Received: November 24, 2021 Accepted: November 30, 2021 Online Published: December 3, 2021

doi:10.22158/asir.v5n3p102 URL: http://doi.org/10.22158/asir.v5n3p102

Abstract

The Glasgow reunions of the states of the world exemplify the basic logic of ocean clubs, handling public goods. The aim was to conjure up a new agreement for regulating emissions of carbon dioxide (CO2) around the world. But especially China and India effectively blocked a binding regime. This paper shows how fossil fuels are too integrated in the economies of these nations.

Keywords

Climate change, COP, international governance, Ostrom, public good, iterated PD game

1. Introduction

The recently ended COP26 negotnegotiatresulted in a watered down compromise, and it is hardly a surprise that China and India reneged against the original formulation of phasing out coal power. Both countries use a lot of coal plants to get cheap energy for rapid economic development. Their governments promised to reduce coal power, but it remains to see what this entails. The other countries at Glasgow would like to know when they will start a process towards complete phase-out, because it is an externality for the globe with extremely high costs.

2. Festina Lente

The governments of China and India can’t be considered to be climate change deniers per say, but has shown reluctance towards any kind of measures reducing fossil fuels. They have faced considerable critique from other countries like Pacific states and several Earth scientists stating that going slowly may bring disastrous consequences.

3. Coal Power in India and China

The energy situation in the most populous countries in the world is of great concern. It is not only that coal power makes up about half of total energy consumed – see Figure 1 and Figure 2.

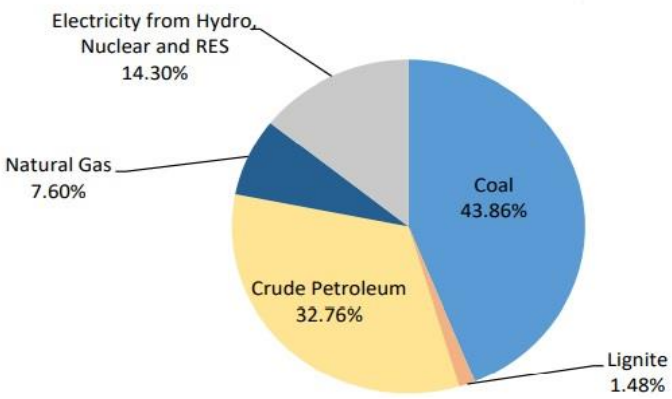

Figure 1. India Consumption of Energy 2019 (Energy India, 2021)

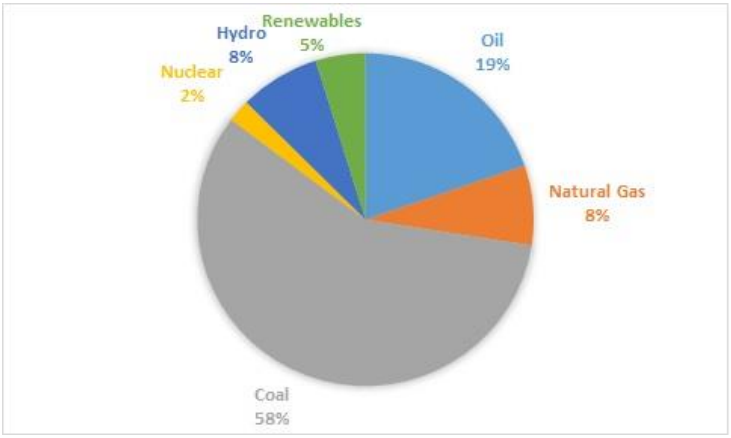

Figure 2. China Consumption of Energy 2019 (BP, 2021)

Although both countries have access to renewable power sources, coal and other fossil fuels dominate. They are projected to undergo rapid economic growth over the course of the 21st century (OECD 2018), drastically increasing demand for energy beyond already alarming levels. In addition, the electric power in India and China is overwhelmingly produced by coal – see Figure 3 and Figure 4.

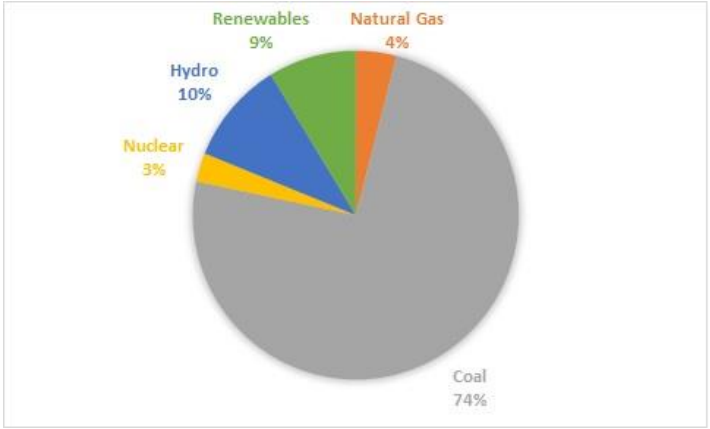

Figure 3. Electricity Production in India 2019 (BP, 2021)

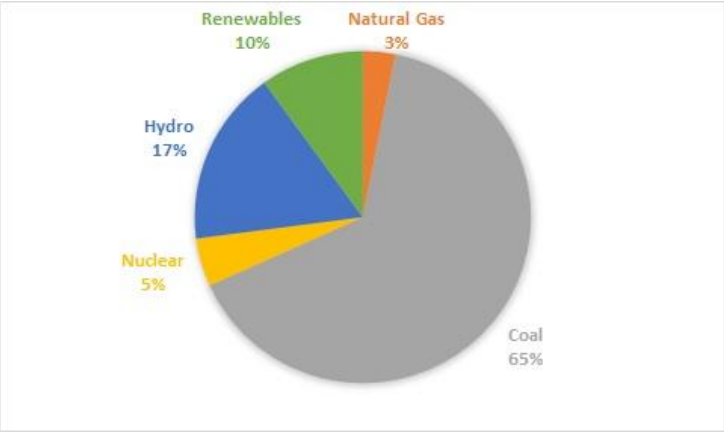

Figure 4. Electricity Consumption in China 2019 (BP, 2021)

Both countries face enormous challenges:

1) Retrieve electricity from non fossils;
2) Replace fossil fuel power with electricity;
3) Increase total power supply considerably.

China says it can accomplish all these goals by 2050, whereas India wants a delay until 2060. Will their plans be successful? Arguably not, as the reason behind the climate crisis is the energy conundrum.

4. "Climate Hysteria"

For a Green activist like Greta Thunberg or a cornucopian like Bjorn Lomborg, the Glasgow meeting was a disappointment, where both would claim the measures, agreed upon will not be enough to halt global warming. Thus, the ecologist demands more, while the cornucopian belittles the outlined efforts, calling for entirely other social policies. Although focusing on the cost-benefit approach, Lomborg downplays the probability of immense damages to earth and mankind. Lomborg would be correct, if he could factually argue that climate change induced costs can be handled – *resilience*. However it is obvious that it is not the case.

5. Ecology and Energy

The debate about climate change involves all aspects of ecological deterioration. Global warming on the other hand deals with greenhouse gases. To save nature globally lots of measures are necessary, while the global warming phenomenon has been attributed in particular to CO2 emissions.

The amount of CO2s in the atmosphere depends upon emissions of greenhouse gases and these depend upon the size of country and level of economic development of a country. Table 1 lists the 20 largest emitters.

Table 1. CO2 Emitters 2016 (Statista, 2021)

Country	Share of World Emissions
China	29.18%
United States	14.02%
India	7.09%
Russia	4.65%
Japan	3.47%
Germany	2.17%
Canada	1.89%
Iran	1.80%
South Korea	1.69%
Indonesia	1.48%
Saudi Arabia	1.45%
Brazil	1.29%
Mexico	1.23%
Australia	1.16%
South Africa	1.09%
Turkey	1.03%
United Kingdom	1.03%
Italy	1.00%
France	0.93%
Poland	0.83%

Global warming will – in this analysis – loose momentum, if the CO2s are reduced. This can be done by each country according to a global regime: the COP resolutions.

6. International Governance

Global governance has increased much since the end of World War Two, and in ecology the United Nations is very active in different projects or bodies. For global warming or climate, the UN operates a special regime with the group of all member states, the *Conference of the Parties* or COP (UNFCCC, 2021). Emission reduction agreements requires unanimity to avoid free riding. Since cutting CO2s has energy and economic consequences, opting out can be very tempting especially for developing countries. A country may of course as well sign a treaty and ex post renege, and regimes are vulnerable to members' opportunism – pro ante or ex post the accord.

We may call COP26 an *Ostrom Club* after Elinor Ostrom, who argued famously that groups of actors could regulate public goods allocation by means of a voluntary regime (Ostrom, 1990).

7. **Energy and CO2s**

CO2s are only one kind of greenhouse gases, but measurement is readily available from day to day. The atmospheric concentration is rendered in Figure 5.

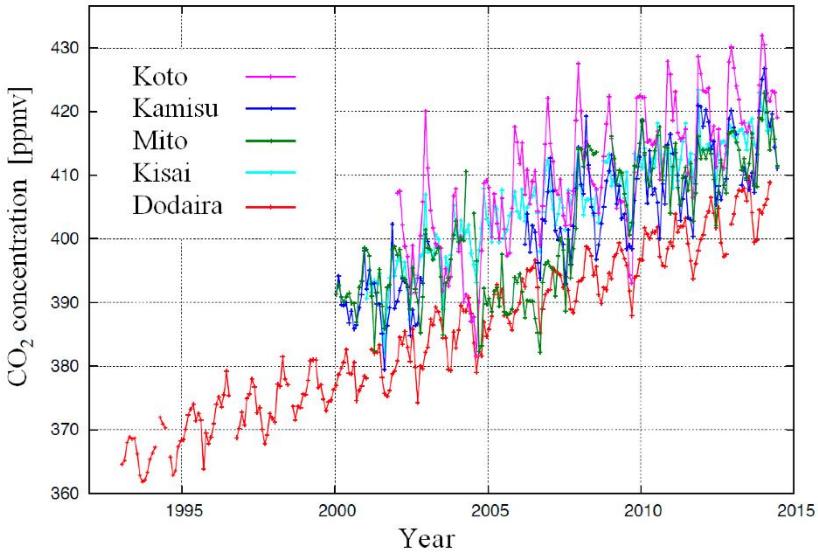

Figure 5. Atmospheric CO2 Concentration in 5 Japanese Cities

(Imasu & Tanabe, 2018)

The so- called Keeling curve goes slowly upwards with the exception of 2020. Now it stands at about 415 ppm. Earth scientists and climate experts like the UN have demonstrated that this rise in the chief cause of temperature increase. Thus, the global club decided to start cutting the CO2s according to various promises: 2030, 2050 and 2060 on the assumption that temperature rise would stay between 1.5 and 2 degrees Celsius. The Keeling curve would level off at some point securing a sustainable solution for the conundrum. Is this likely? Once again negative answer, based on the facts at hand.

The Keeling curve has increased by 2 percent per year since global warming was diagnosed by researchers at the NASA Goddard Space Center in 1988 (Hansen et al., 1988), driven by CO2 emissions. The amount of greenhouse gases has augmented sharply, driven by energy increases. The latter will not decrease. On the contrary, both greenhouse gases and energy consumption is up 2021 from 2020. Here is the crux of the matter. When global emissions go up 1%, the Keeling curve goes up 2%. It is all about energy.

8. Energy

The demand for energy goes up year after year. Since 1990 the increase is 0,8 per cent per year (BP, 2021). Total energy supply is sharply up even when energy decarbonisation takes place. It is true that renewable energy sources have been put in place in many countries, bur fossil fuel energy still dominates much. The transition from coal, oil and natural gas occurs at the time as demand for energy

augments. With the shift to electric cars and trucks the consumption of electricity will more or less skyrocket in many countries. Figure 6 shows some estimates of energy.

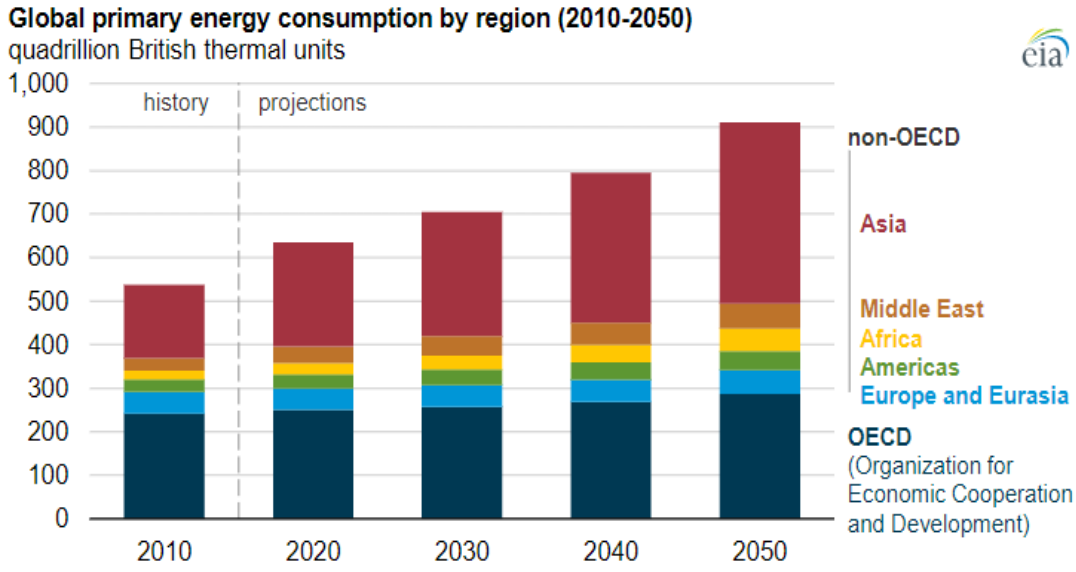

Figure 6. Projected Energy Demand 2020-2050 (EIA, 2019)

9. Ostrom's Theory

Elinor Ostrom was greatly rewarded for the hypothesis the groups or club can overcome free riding by voluntary accord and mutual control. She looked for empirical in Asian practices of agriculture and fisheries as well as for theoretical support from Axelrod's analysis of repeating PD games. The COP is the club to handle the negative public good of C02s. Since cooperation is not NASH in a finite sequence, which China and India showed at Glasgow, reneging will make climate change unstoppable. We have illusions:

A) States reveal truthful CO2 emissions;

B) States will enforce their COP accords honouring club membership;

C) States will not go back to fossils when they face an energy shortage.

10. Conclusion

If the states of the world were committed to halt climate change to 1.5 degrees, then they enact much more severe restraints without free riding. However, states are as opportunistic as men and women, and will find ways out of or around agreements. The mechanisms in COP26 will not be sufficient.

References

BP Statistical Review of World Energy. July 2021, 70th Edition. British Petroleum. Retrieved from https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html

Energy Statistics India 2021. National Statistics Office, Ministry of Statistics and Programme Implementation, Government of India. Retrieved from http://www.mospi.nic.in/publication/energy-statistics-india-2021

Hansen, J., Fung, I., Lacis, A., Rind, D., Lebedeff, S., Ruedy, R., Russell, G., & Stone, P. (1988). Global climate changes as forecast by Goddard Institute for Space Studies three-dimensional model. *J. Geophys. Res.*, *93*, 9341-9364. http://doi.org/10.1029/JD093iD08p09341

Imasu, R., & Tanabe, Y. (2018). Diurnal and Seasonal Variations of Carbon Dioxide (CO2) Concentration in Urban, Suburban, and Rural Areas around Tokyo. *Atmosphere*. *9*(10), 367. https://doi.org/10.3390/atmos9100367

OECD. (2018). GDP long-term forecast (indicator). https://doi.org/10.1787/d927bc18-en

Ostrom, Elinor. (1990). Governing the Commons: The Evolution of Institutions for Collective Action. New York: Cambridge University Press.

UNFCCC: Conference of the Parties (COP). Retrieved from https://www.unfccc.int/process/bodies/supreme-bodies/conference-of-the-parties-cop