

Trade, Sustainable Development and Climate Change: A proposal for Positive Convergence

James Cameron, Max Mendez-Parra, and Leah Worrall

Overseas Development Institute

For human society to flourish and prosper, we need well-regulated trade, well-managed resources, and a life-sustaining environment. Economies depend on clean water, air, soil, and diverse ecosystems that are healthy and productive—essential though often undervalued resources. The climate is the ultimate essential resource. The climate system, with all its complexities, challenges our ability to comprehend our place in the natural world, lurching us from dominant species to powerless victims in the space of a storm or a season. Now that we know about human-induced climate change, we face a significant probability that human society will not be able to survive and prosper within two generations—at the very least not in the form recognized by those alive today. The lifespan of a healthy child born today and the life of their child contains the promise of 4-6°C of warming, unless we dramatically reduce global greenhouse gas emissions. Taking action now is imperative. Any political official, civil servant, community figure, or business leader charged with that knowledge ought to make climate change action a paramount priority in their decision-making.

Perhaps more alarming, the scientific community is keen to emphasize that the risk associated with climate change is not linear. It does not run up a smooth, straight line, gently warming us over a time beyond the horizon of most decision makers. The warming is here now and the impacts of climate change could be severely disruptive. Further, the associated feedback mechanisms inform us that chaos, following on from relatively sudden changes in features of our landscapes such as glaciers, icebergs or forests, is a likely consequence of accelerated global warming.

Fortunately, technology does not progress in a linear fashion. Innovation is exponential. We have a complex problem in a huge system that we influence by our actions but cannot fully control. We have exponential innovation happening right now in the digital economy, which holds great promise for the energy, transport, industrial, and agricultural systems that continue to fuel the risk of catastrophic climate change. We have extraordinary capacity, through language, ideation, and institutions, to recreate the material world. We make the world in our minds, we imagine futures, we create legal fictions, such as corporations and intellectual property, and we have massive computational power at our disposal. These are the means for the very high level of cooperation required of human society to survive and prosper.

Innovation is happening in the critical energy and transport sectors, offering evidence of the exponential. Renewable energy storage, digital demand side management, and electric vehicles all have declining costs, increasing efficiency gains, and are converging. In addition, we need to also consider the built environment, as all these technologies can be connected in the design and use of buildings. Technology revolutions happen when technologies become more valuable as they combine with others, and innovators and investors are drawn to the place of convergence. Critical technologies, such as artificial intelligence, blockchain, and machine learning, are now engaged in the energy sector, allowing renewable energy to be managed more efficiently, reducing demand and connecting with electric vehicles. Citizens as consumers can use these technologies themselves, achieving an alluring level of control and independence.

Indeed, the new stuff is better than the old stuff. Electricity does the job of powering our economy without the need to burn fossil fuels, without the attendant air pollution, and with at least the potential to democratize production and consumption. Wherever there is light there is power. The politics are interesting: distributed power distributes power.

Of course, nothing comes free and certainly not free of problems and conflicts. No system with vital financial and economic interests is going to escape politics and the innovations we see in the development of artificial intelligence, blockchain and machine learning come with a whole load of other unresolved issues. The point is that we do have the capacity to innovate our way to manage the risks associated with climate change. We can do this with the resources we have, and we can improve the ways in which we cooperate through institutions as much as the technologies themselves. Finding solutions is not all about a “techno fix.” It is about acknowledging our capacity to reinvent and cast aside assumptions that fail to protect us from harm or stifle our potential to thrive.

In the early days of climate change negotiations, there was an underlying assumption that animated the proceedings: that making the necessary changes would be hugely costly. They believed that those responsible for the problem should bear those costs. Guided by this principle, the 1992 Framework Convention on Climate Change imposed emissions control standards on the so-called “Annex I” countries that had industrialized—a divide that created the expectation that the wealthier nations would compensate countries in the developing world for their losses and the burdens of foregone fossil fuel-based development. This framework encouraged an “I win/you lose” negotiating style familiar to many simple negotiations. Another key characteristic of the discussions was the “after you” rhetoric, which went something like the following: “I will do something to deal with the problem, but you go first.” This strategy was hopeless—it was evident from the outset that no state could protect its citizens from climate change on its own, and that cooperation amongst the major polluters was essential. “After you” just meant wasting everybody’s time.

Indeed, the closer participating countries aligned their policies, the larger the market in solutions there would be. There never was any hope that governments spending public money alone could resolve a problem of this scale or that compensations would pay for the

real losses that follow from failing to address climate change. The only clear sovereign interest is to do whatever it takes to solve the problem as soon as humanly possible. The most vulnerable suffer the most by delay.

Making a huge transition like this, however, involves real and substantial costs. At the earlier stages of climate change negotiations, the international community stressed the moral imperative to act and through the treaty-making process. We turned to the power of the law to begin the change. The hope was that by obligating reductions, initially only in developed or the so-called “Annex I” countries, we would encourage investment in the solutions. While the obligation was common to all, the responsibility to act was differentiated based on capacity and historic emissions. The resulting framework quantified and distributed emission reductions amongst those who assumed the responsibility of creating the problem, albeit unwittingly, through their industrialization. The Kyoto Protocol was therefore just as important an economic agreement as the Marrakech Agreement, which led to the creation of the World Trade Organization (WTO). Both contain commitments to sustainable development. Both have references to trade and competitiveness. At the time it felt like the trade regime was protecting itself from intervention by environmental regulations and the climate change regime was suspicious of the intentions of trade-related language in the text of the climate agreements (itself a carry-over from the United Nations Framework Convention on Climate Change (UNFCCC) in 1992). Countries used arguments based on competitiveness as a defense against a claim for deeper reductions in greenhouse gas emissions.

Arguments based on competitiveness had a stronger foundation back then, because fewer investors were interested in alternatives to fossil fuels and because parallel fields, such as artificial intelligence and blockchain, had not yet emerged as relevant subjects in the debate. While these arguments seemed economically rational at the time, and powerful actors were keen to assert their influence on the politics, it would have been unimaginable to ignore

the problem in the face of the scientific evidence. Splitting the world up into the developed and developing world also seemed reasonable, as it meant that those who caused the problem had the primary responsibility to act. That was then.

Today, the dynamics in the real world are very different. China has emerged as the world's largest greenhouse gas emitter. Its fossil fuel burning has led to horrendous air pollution problems in its cities and presents a real risk to the nation's social harmony if it were to fail to resolve these problems.¹ China also has a scientifically literate leadership that understands and accepts the climate change science. As a result, China has been a key player in climate change solutions, having driven down the global price of solar photovoltaic technology through its own investment and regulatory pull. China also has the largest planned infrastructure project in the history of the world (the Belt and Road Initiative), is building up its overseas aid institution, and is stepping into the diplomatic space vacated by the United States in the climate change negotiations. China is therefore not only a significant contributor to the climate change problem but also a major source of solutions with its own interests in cooperating with the rest of the world. China can offer technology, capital, and human resources to the international community. How it chooses to implement the Belt and Road Initiative is one of the pivots upon which the world's future depends. It matters to all of us that a project of this scale is clean, not dirty. China is also a member of the WTO and, of course, there are already trade disputes over solar panels. Like many States, there is sometimes no obvious connection between China's stance on trade and that on climate. China's real-world interests are situated in the convergence between the imperative to act and the opportunity to cooperate decisively with others. The economy wins when it sells solutions to the world at the right price. The society wins when air pollution is reduced and public health is improved.

India imports a prodigious percentage of its fossil fuel needs, a significant drain on its Treasury.² When Prime Minister Narendra Modi mounted a campaign to increase solar generation across the country, he used both economic and social arguments: increasing energy access for the poor and reducing dependence on imported fossil fuels. Climate change has not been a key consideration. India's economy is growing at roughly 7 percent annually.³ The expansion of solar energy in the country, innovation in electric vehicles, and investment in the digital economy are all examples of the transition underway. The economic case to address climate change gets stronger by the day in the very developing countries that had previously made the case for compensation for the inevitable cost of adopting cleaner technologies. The vast majority of clean energy development in India has been domestically financed but it has involved importing technology from China, Japan, the United States, and the European Union. The rest of the world has a strong interest in solar beating out coal to be India's primary source of energy. We should be doing whatever we can to enable India to access clean energy technology at the right price to phase out coal. Such targeted efforts could involve public money and various cleverly designed risk transfer mechanisms, but they definitely require a relatively open and well-regulated trading system. A transition like this will also facilitate India's effort to develop its own manufacturing capability, a process already well underway. The assumed negotiating interests in both the climate change and trade regimes have shifted for India. The country has economic, social, and environmental interests in developing differently. India has become a significant player in the technology race. It is also a regional rival to China, which should make alignment or even convergence between the trade and climate change regimes easier, provided the framing is right.

Kenya has emerged as a hub for digital innovation, having leapfrogged payment systems for banking and basic services. It has also increased investments in renewable energy, and by doing so, it has learned that developing solar power can get affordable

electricity to people who have never had it before.⁴ Similar experiences can be found across Africa. Rwanda is planning a green economy, bringing in finance for that purpose, using government guarantees to attract private capital, and scaling up renewable energy.⁵ Not so long ago it was a failed state.

The costs of the transition we must make are now falling on those looking after the fossil fuel incumbents, maintaining subsidies in the face of competition from renewables. The political challenge of removing subsidies has come into sharp focus as the real issue. The mental conservatism of leaders in countries with fossil fuel-based economies is a problem. It now seems inevitable that clean energy will win on cost.

The old assumptions are now seen as wrong on a number of counts. The long-assumed trade-off between economic progress and environmental protection no longer appears to exist. Of course, any transition entails costs, but not because the new stuff doesn't work, cannot be scaled, is too expensive, or always dependent on subsidies. Therefore, the traditional clash between trade and environment, or trade, competitiveness, and environment needs to be completely rethought. My proposition for recasting the framework includes:

- “I win/you lose” negotiating strategies are hopeless when the prize is a stable climate for all humanity. Rather, we should focus on an approach that fosters cooperation and creates a competitive landscape that rewards speed and effectiveness. Aligning policy signals, reducing barriers to investment, stimulating research and development, and sharing know-how are crucial strategies that all help. Raising ambition to set an example pays;
- Nationalistic or protectionist policies in the trade arena reduce the capacity to exchange ideas, technology, or finance for mutual benefit in solving the complex problem of climate change;

- Cost matters. Reducing the cost of technological or business solutions makes them accessible to more people, including the poor;
- Access to energy is essential to poverty alleviation and economic development. Renewable energy is cheaper and faster to deploy and, as such, it does that job better than fossil fuels and traditional power infrastructure. In due course, storage and digital demand management will join these technologies;
- Liberal, regulated international trade, governed by a global institution such as the WTO, improves the prospects of delivering climate change objectives expressed in the Paris Agreement, provided that governments actually do honor their commitments;
- Sustainable development, as expressed in the UN Sustainable Development Goals, provides a general policy framework within which decision makers in both the public and private sectors can make many diverse choices. Institutions are using new metrics, targets, and improved data to judge performance and to render the language of sustainable development more precise and more meaningful to economic actors;
- Human flourishing acutely depends on our response to climate change, which is why trade policies have to support the climate regime.

The World Trade Organization can help deliver climate change objectives and honor its own commitment to sustainable development. It can increase opportunity for trade in solutions, facilitating the flow of environmental goods and services and removing barriers to trade that are unjustifiable. It can encourage the use of border tax adjustments where countries are seeking to take advantage of their failure to regulate carbon pollution. The World Trade Organization should clearly express its institutional support for the Paris Agreement on climate change, which is designed to give maximum flexibility to states to choose their own methods for achieving the objective of limiting global warming to below

2°C. It is important to note that some of these tools can be problematic, as carbon pricing can create trade distortions. However, given that carbon pricing is one of the most efficient ways of penalizing polluters, the WTO should use its institutional power to coach governments on how best to implement their national commitments using this method. Indeed, there is scope in the Paris Agreement for governments to work together to make carbon pricing more effective over a larger market area.

The World Trade Organization could work on the progressive removal of fossil fuel subsidies under the existing domestic support commitments. This is another place where the imperative meets the economically rational but where politics and vested interests get in the way. While this is difficult territory that often sets experts against each other, it is also an arena where the WTO and its members can work together to develop climate change solutions. Under the Paris Agreement, countries have agreed to make financial flows compatible with a low carbon global trajectory. G20 governments also agreed to phase out inefficient fossil fuel subsidies.⁶ Despite such significant global commitments, the international community has not agreed on the definition of a “fossil fuel subsidy,” let alone what constitutes an inefficient one. The lack of mutual understanding on this issue creates disagreements in the quantification of fossil fuel subsidies. For example, the United Kingdom has denied that it provides any fossil fuel subsidies under its definition. Recent research by the Overseas Development Institute has found that fossil fuel subsidy provision remains rampant, signaling continued investment in brown energy. The EU and 11 European countries provided €112 billion in fossil fuel subsidies a year between 2014 and 2016, while G7 countries provided \$100 billion in fossil fuel subsidies a year between 2015 and 2016, including public finance and state-owned enterprise investments.⁷

Countries all across the Organization for Economic Cooperation and Development (OECD) world have fossil fuel subsidies in place that are incompatible with a serious

commitment to deliver on the Paris Agreement. Removing them would produce economic and environmental benefits rapidly. The clean energy sector employs far more people than the traditional coal, gas, and oil industries. The transition needs to happen and it should happen fully conscious of the costs to communities that are dependent, for now, on those dirty energy industries. Education, training, real job substitution, investment in housing and public amenities, and proper care of the culture threatened by change—these are central tenets of the just transition but they are not reasons for inaction or excuses for maintaining absurd fossil fuel subsidies.

Fossil fuel subsidies in the agriculture and fisheries sectors also have to be addressed if they are to become sustainable. This may not be so simple, as recent research from the Overseas Development Institute has shown that fuel subsidies are a political sticking point in World Trade Organization negotiations, and account for between 2 percent and 65 percent of a country's fishery subsidies.⁸ As climate change begins to challenge our food security, the trade regime needs to think hard about the inputs and impacts of these sectors. Here climate change amplifies risk—risk of conflict, of migration, and of economic loss. More nutritious food for more people, less waste, better water and soil conservation—these are not only critical components of sustainable development but also of peace and security. The global commodity trade often fails to value the real world cost (e.g. pollution or resource depletion) of either producing or consuming goods that are essential for life. For many countries not self-sufficient in water resources, liberalized and multilateral trade is essential for food security and peace. These pressing concerns highlight why trade has to fully comprehend the consequences of climate change and why we need an effective, well-structured trading system that strikes the right balance between opening up markets, protecting natural systems from overexploitation, and shielding people from harm.

Developing such a framework will be essential to achieve sustainable development and deliver the UN Sustainable Development Goals in a world which is, like it or not, connected. It seems tautologous to say we live in a globalized world, and it is a statement of the obvious to say we have one atmosphere, one planet, or one biosphere. It doesn't matter to the atmosphere where a ton of carbon is produced or reduced. However, we have learned the essential difference and diversity of experience, perspective and capacity to both absorb the evidence of the problem and to act in order to manage the risk and reduce the harm we are doing to ourselves. The base inequality that operates within and between societies is a powerful force that must be reckoned with. At some level it invites recognition of our common humanity in face of a common threat, but it also resonates with a desire to attack the holders of power for the mess we are in. There is an intergenerational element here too. Fairness to future generations was built into the original Brundtland definition of sustainable development, and the young are entitled to be angry.⁹

A human-centered drive for sustainable development is one where human well-being and the mission to leave no one behind as economies grow is blended with the reduction of climate risk. This vision offers hope of a just transition. As long as we understand we are in a race and the exponential is our friend in the context of technology innovation and our enemy in the context of a potential runaway greenhouse effect, we can reshape our economies and our societies around these imperatives. "Just transition to raise ambition," a phrase attributed to the representatives of the Unions in the UNFCCC, reflects this idea. It acknowledges the need to bring people with you when advocating change, if only to ensure they don't block your progress. It also suggests that the much-needed transition offers the promise of a better future and that we can move faster towards this goal if we build a compelling narrative that a population or threatened community can own and identify with.

This is why we need to put a significant effort into making our economic, financial, and environmental institutions speak a language all can understand. As human beings, our sophisticated and complex language distinguishes us from other animals, even other intelligent mammals and primates. Words, storytelling, narratives containing wisdom and insight, laws expressing the best of our intentions, rhetoric rousing people to action, and warnings of danger; language is what makes us successful as a species. Yet, technical languages and doctrinal interpretations of the same words and phrases can divide us and when faced with real threat, we still struggle to understand each other. There are compelling reasons to challenge the concept of sustainable development. It has struggled to inspire. However, a substantial international process has fastened upon sustainable development. The international community has set goals and devised metrics and it must now try to communicate them effectively. The UN Sustainable Development Goals show promise. But our climate change narrative needs work. It doesn't connect enough of the forces of power in politics, investment, business and society in order to adequately respond to the scale of risk we face or the scale of opportunity to build a better system for delivering basic human needs.

We will need go-betweens, or connectors, to bridge the remote worlds of trade and climate change. We will need to build and rebuild trust between the participants in negotiations and their bosses back in the capitals. Different departments of state will have to do a better job of joining up and presenting a whole of government interest in sustainable development.

Profound changes are happening in the corporate world. The trend towards sustainability in private business is real. Large corporations in their supply chains and small niche businesses driven by ethics or new practices that attract value to their products or services are applying different standards to their enterprises that fit better with the UN Sustainable Development Goals, even if that is not how they are expressed. A similar trend is

happening in finance with new ways of rating the performance of stocks and bonds, and most significantly, with the re-rating of risk in fossil fuel investments. Disclosure and transparency have become vital characteristics of the trend for more, better, and different data that can shape our judgments about where and how to invest.

While there is great progress afoot in the corporate world and de facto across the trade and climate change regimes, climate change amplifies risk and distributes burden unfairly. The poor are disadvantaged and the vulnerable are most at risk from physical harm combined with economic shocks and higher costs of debt and insurance. These implications derived from the Sustainable Development Goals must continue to guide and inform future work.

In conclusion, we need to develop effective, fair and open international institutions working well together to deliver sustainable development in the real world. That doesn't mean that they need to be bigger or resemble some kind of a world government. On the contrary, what we need are smaller, smarter, networked institutions that are more aware of the value of enterprise in all of its forms and are less deferential to sovereignty. In order to build such a system of international governance, we will need to create the conditions in which the trade, finance, and climate change regimes assist each other and get out of each other's way when needed. This vision has to recognize the value of open markets for trade and investment in enabling the range of climate change solutions to flourish. Much of that trade will flow south to south or "big south to north," as the old split between developed and developing countries looks increasingly irrelevant to the climate change debate when there is so much to be gained by choosing a less fossil fuel-dependent development path. Even the big fossil fuel producers have much to gain by switching to clean energy. It is the biggest natural hedge in economic history: high carbon to low carbon, fossil fuel rents to investment in solar and all the alternatives. The informational infrastructure of both trade and the key markets in the transition to a cleaner, greener economy are of paramount importance.

Transparency, accountability, and better data will change decision making. The language of investment will change to accommodate climate change risk.

The most recalcitrant political leaders, the ones who deny there is a problem or claim that if there is one it's too costly to remedy, or those who weakly plead "after you," are not only failing to act responsibly, but they are also missing an opportunity. Those Annex I countries that undertook obligations in climate change agreements should honor them because it is the right thing to do, because it will help others follow suit, and because it makes economic sense. Those who use delaying tactics arguing that nothing can be done until mythical amounts of public money are transferred from treasury to treasury—from the wicked developed world to the victim south—are not being honest or strategic about their own interests. The so-called developing world has the intellectual, technological, and financial resources to solve pressing problems of access to energy, agricultural productivity, and urbanization while reducing emissions. The trillions required to change global infrastructure will come from capital markets all over the world, sovereign wealth funds in oil producing states, pension funds in high savings countries, and yes, some modest percentage will come from governments who have the primary responsibility to address climate change.

The task for the trade regime is to ask: "How can we assist the climate change regime?" The task for the climate change regime is to seek help outside the standard negotiating process and to let go of lazy assumptions and counterproductive negotiating strategies. Instead, it should ask: "Where are the resources to solve this problem and how can we access them now?"

Notes

¹ Salvatore Babones, "Red Alert for China's pollution protesters," *Al Jazeera*, February 20, 2017, <https://www.aljazeera.com/indepth/opinion/2017/02/red-alert-china-pollution-protesters-170217111717375.html>.

² U.S. Energy Information Administration, “India is increasingly dependent on imported fossil fuels as demand continues to rise,” August 14, 2014, <https://www.eia.gov/todayinenergy/detail.php?id=17551>.

³ International Monetary Fund, “India’s Strong Economy Continues to Lead Global Growth,” August 8, 2018, <https://www.imf.org/en/News/Articles/2018/08/07/NA080818-India-Strong-Economy-Continues-to-Lead-Global-Growth>.

⁴ Rapid Transition Alliance, “Off-grid solar power lighting up rural Kenya,” December 3, 2018, <https://www.rapidtransition.org/stories/off-grid-solar-power-lighting-up-rural-kenya/>.

⁵ *Green Growth and Climate Resilience: National Strategy for Climate Change and Low Carbon Development* (Kigali: Government of Rwanda, the University of Oxford, UK DFID-Rwanda, and the Climate and Development Knowledge Network, 2011)

⁶ Jeff Mason and Darren Ennis, “G20 agree on phase-out of fossil fuel subsidies,” *Reuters*, September 26, 2009, <https://www.reuters.com/article/us-g20-energy/g20-agrees-on-phase-out-of-fossil-fuel-subsidies-idUSTRE58O18U20090926>.

⁷ Ipek Gençsü, Maeve McLynn, Matthias Runkel, Markus Trilling, Laurie van der Burg, Leah Worrall, Shelagh Whitley, and Florian Zerzawy, *Phase-out 2020: monitoring Europe’s fossil fuel subsidies* (London: Overseas Development Institute, 2017), 7, www.odi.org/sites/odi.org.uk/files/resource-documents/11762.pdf; Shelagh Whitley, Han Chen, Alex Doukas, Ipek Gencsu, Ivetta Gerasimchuk, Yanick Touchette, and Leah Worrall, *G7 fossil fuel subsidy scorecard: tracking the phase-out of fiscal support and public finance for oil, gas and coal* (London: Overseas Development Institute, 2018), <https://www.odi.org/publications/11131-g7-fossil-fuel-subsidy-scorecard>.

⁸ Leah Worrall and Max Mendez-Parra, *Fisheries: the implications of current WTO negotiations for economic transformation in developing countries* (London: Supporting

Economic Transformation, Overseas Development Institute, 2017), <https://set.odi.org/wp-content/uploads/2017/12/SET-WTO-Negotiations-Fisheries.pdf>.

⁹ UN Secretary-General, A/42/427. Our Common Future: Report of the World Commission on Environment and Development, accessed May 7, 2019, <http://www.un-documents.net/wced-ocf.htm>.