

A Story of Progress

How the World Survived
the Climate Crisis



**SOCIAL
PROGRESS
IMPERATIVE**

AUTHORS

Michael Green, Jaromir Harmacek, Mohamed Htitch, Sophie Sutherland

ACKNOWLEDGMENTS

We would like to thank Breckinridge Capital Advisors for their kind and generous support in enabling the development of this work.

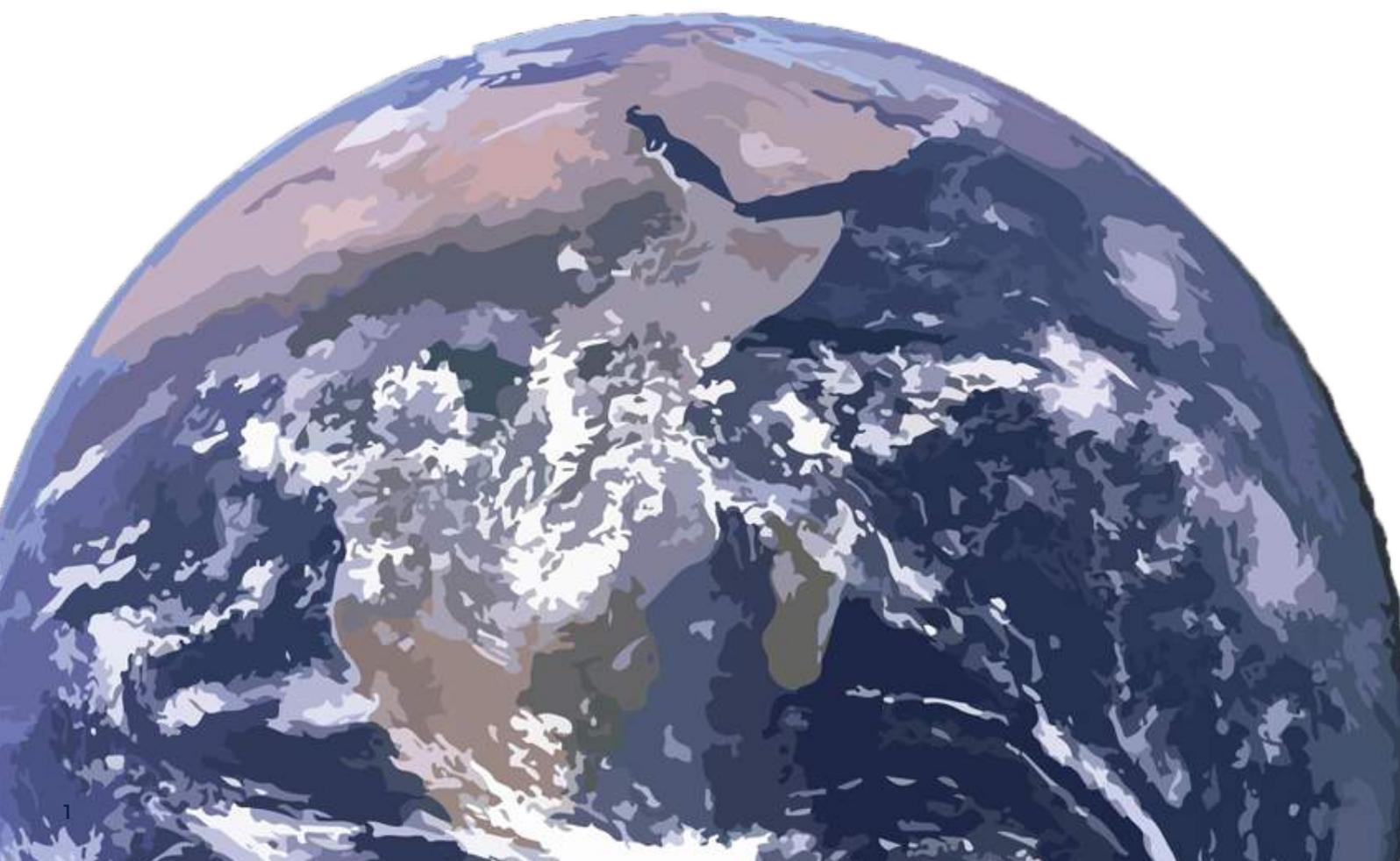
We would also like to thank our academic advisor Scott Stern for all of his guidance in the development of both this years' global index and this report.

Thanks also to the staff at Social Progress Imperative for their support and input, and our Board of Directors for their leadership.

A special thank you to all of our partners and supporters around the world, without your generous support we would not be able to keep advancing social progress.

Learn more about our work and how you can help turn data into solutions at socialprogress.org

SUPPORTING SPONSOR



A NOTE FROM THE SOCIAL PROGRESS IMPERATIVE

At the COP26 Summit the world is wrestling with a critical question: Is it possible to make real human progress – lift millions of people out of poverty, create equitable well-developed societies – without increasing GHGs beyond sustainable levels? After all, the rich world largely developed, socially and economically, at the expense of the planet. Whether our historical path to development and social progress need be our future path is the question at the heart of the debate.

The decision to conduct research on the relationship between greenhouse gas emissions (GHGs) and social progress was born out of a desire to help the world figure out what is possible to answer this question. There is an overwhelming amount of evidence of the negative impact of high levels of GHGs and how important it is that countries lower emissions - this report is not that. What we have is one piece of the puzzle - knowledge about how societies progress - that shows that a sustainable future with social progress is possible.

‘CAN WE CONTINUE TO MAKE SOCIAL PROGRESS WITHOUT CONTINUING TO HARM OUR PLANET?’

This story is all about the possible. This is what led us to decide to set it in the future, 9 years from now and the 2030 deadline set for the UN Sustainable Development Goals. We have imagined what it could look like for the world to achieve sustainable greenhouse gas emissions and how it might have happened. Through rigorous data and analysis, this report is grounded in the reality of our societies. We take some artistic license with the storytelling aspects, but the data is the common base of truth upon which we can all agree.

Our hope is that this story challenges assumptions so we can hold each other to account, that it highlights what makes a strong healthy society, and that it shines a light on what is working to pave the way for world leaders to enact real systemic change.

**THIS IS THE WORLD IN 2030.
WE ARE NOT NET ZERO, BUT THE WORLD'S EMISSIONS
ARE AT A SUSTAINABLE LEVEL. WE DID THIS WITHOUT
HAVING TO SACRIFICE PROGRESS OR DEVELOPMENT.**

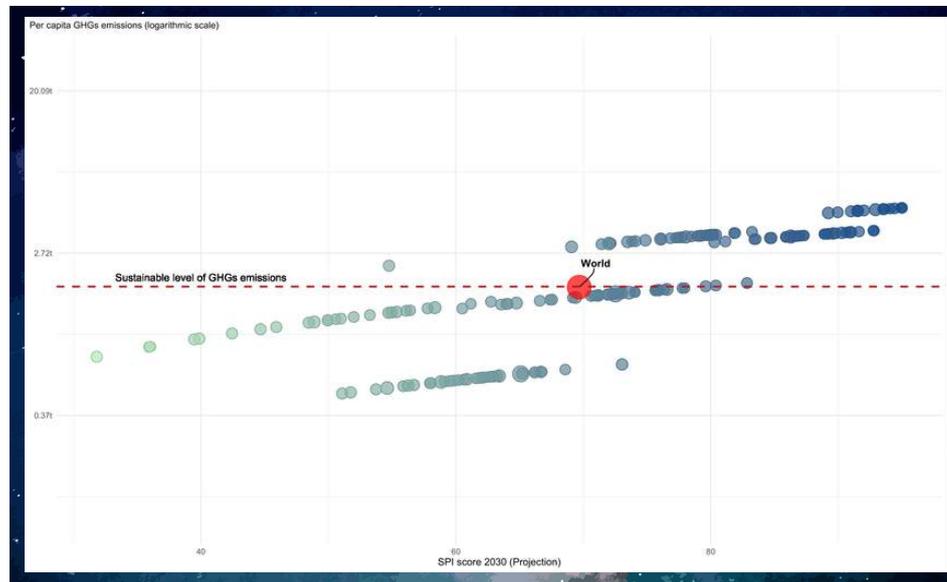


Figure 1

Projection of countries' SPI scores and their level of emissions in 2030, if all countries achieved emissions levels comparable with the best of the countries at their level of development. The world would be at the sustainable threshold of 1.74t.

The turning point came in 2021, when the leaders of the world gathered in Glasgow to meet for the 26th United Nations Climate Change Conference. The world was still largely in the grip of a pandemic that had at that point claimed 5 million lives globally. It was reeling not just from the death toll, but also from the stresses Covid-19 had placed on healthcare, education, the economy; and the deep divisions it had caused within societies. Although everyone had been impacted by the pandemic in some form or another, it was those already living below the poverty line who were most affected.



The inequality gap was growing, and as so many children had their education severely disrupted, the impact would be felt for generations to come.

Yet it was the climate crisis that loomed largest as the most fundamental threat to our prosperity and future wellbeing. Major climate events were increasing in frequency and causing massive devastation around the world, from droughts and wildfires to hurricanes and floods.

Though the world had made incredible progress over the last century in fighting poverty and raising living standards, it was bought at a huge cost to the environment and with the imminent risk of catastrophic irreversible climate change.



The average human in 2021 produced 6.26 tonnes of greenhouse gases (GHG) per year, more than triple the sustainable limit to maintain the global temperature increase below 1.5°C. A report published by the Intergovernmental Panel on Climate Change earlier that year had minced no words in its depiction of the potential disasters facing the planet and humanity unless the amount of greenhouse gas emissions were drastically reduced.¹

The pandemic had initially at least offered some hope in a reprieve of growing emissions, as with fewer planes in the air and cars on the road we saw a literal clearing of the skies. That hope was short lived as just before the COP26 meeting it was reported by the Greenhouse Gas Bulletin,² that in fact harmful emissions in 2020 had grown by a record number. As the leaders gathered, the hope for meeting the UN Sustainable Development Goals felt like a pipe dream, yet many felt that if you could solve the climate crisis the world would be well on its way to achieving them. Yet, even the most optimistic and most ambitious had set 2050 as the new target for net zero emissions.

The pandemic, while bringing the world a great number of challenges, also offered an opportunity in the way of collective agreement that we must cooperate to tackle global threats. Throughout the world there were calls for an inclusive, equitable and sustainable recovery.

An understanding that for all of humanity to thrive we had to address the climate crisis in the most decisive way possible, and that we needed to measure success not by measuring wealth creation alone, but by meeting the needs of people and the planet.

In addition to practical alignment, there was a massive opportunity to direct the huge sums of money being funneled into Covid recovery to boost low-carbon industries and technologies.



It was true that countries with higher social progress also tended to have higher levels of greenhouse gas emissions, however largely due to the adoption of greener technologies we were beginning to see a weakening relationship between GHGs and social progress. This inspired hope that more socially developed countries were less likely to demand higher levels of emissions in the future.

¹ AR6 Climate Change 2021: The Physical Science Basis. (n.d.). Retrieved from <https://www.ipcc.ch/report/ar6/wg1/>

² Group, P. (n.d.). WMO Greenhouse Gas Bulletin (GHG Bulletin): E. Retrieved from https://library.wmo.int/index.php?lvl=notice_display&id=3030#.YXm5jRDMK3J

AT EVERY LEVEL OF SOCIAL PROGRESS, WE SEE COUNTRIES THAT ARE ACHIEVING THE SAME RESULTS FOR THEIR PEOPLE BUT WITH VASTLY DIFFERENT GREENHOUSE GAS EMISSIONS PER CAPITA.

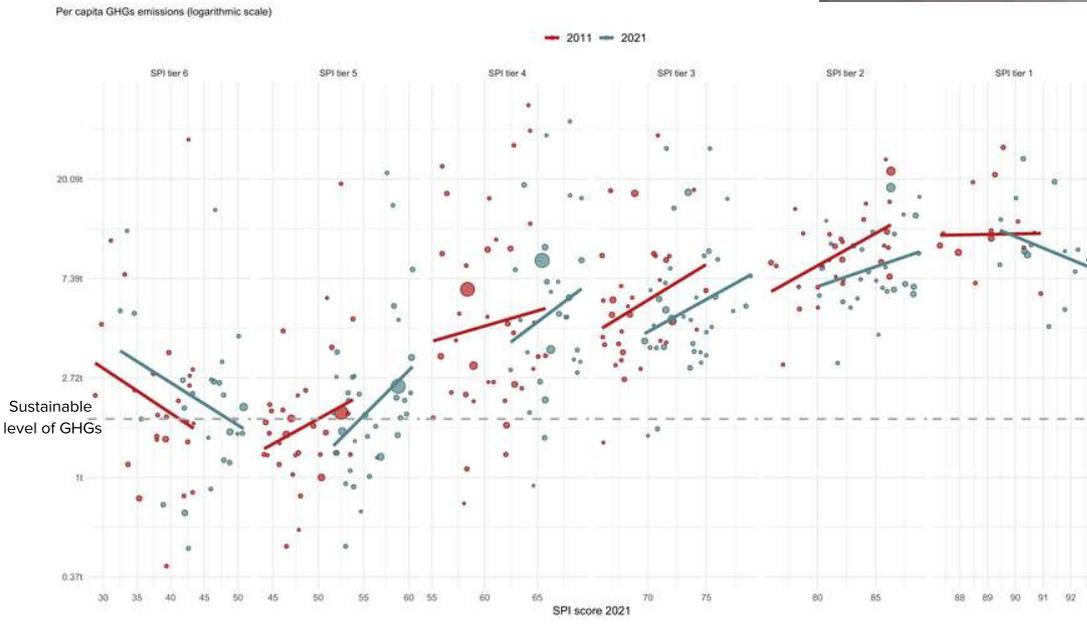


Figure 2

Countries in their social progress tiers. In tier 2 countries we begin to see a weakened relationship between ghg emissions and social progress. By tier 1 the relationship has gone into decline, highlighting that higher levels of social progress no longer correlate to higher emissions for the most socially advanced countries in the world.

The main hopes for COP26 were for the countries who were the worst emitters to recognize their responsibility and gravity of the situation and commit to serious measures for a reduction in GHGs. Additionally, large countries in the midst of rapid development had to commit to a new sustainable way forward that did not rely on mass industrialization for progress. This was not just a challenge, but an opportunity. China, for example, as the world's largest total emitter of greenhouse gases, had much to gain by choosing a sustainable path to development. The worst GHG per capita emitters, whose social development had come at the cost of the environment, included Australia, the United States and Qatar, countries with fossil fuel rich economies that had not yet proved themselves capable of cutting their dependence on fossil fuels.



Australia's policy agenda heading into the Summit was weak,³ while it promised 20-year investments into low-emissions technologies, it also provided no plan or promise to limit fossil fuels.⁴ The United States, having just re-entered the climate agreement, had ambitious plans to be aggressive in tackling climate change. However, the deep divisions inside the country meant that while it was a promise of the current president, there was no guarantee that it wouldn't be abandoned by the next. Qatar, the world's biggest exporter of liquefied natural gas, were critical of the net zero cry from politicians, seeing it as foolhardy to reduce oil and gas production without a solid plan in place, they were boosting gas production to the tune of \$30billion over six years. China, the world's largest total emitter of greenhouse gases, had deferred a commitment to net zero carbon emissions to 2060 and was still building coal-fired power stations.

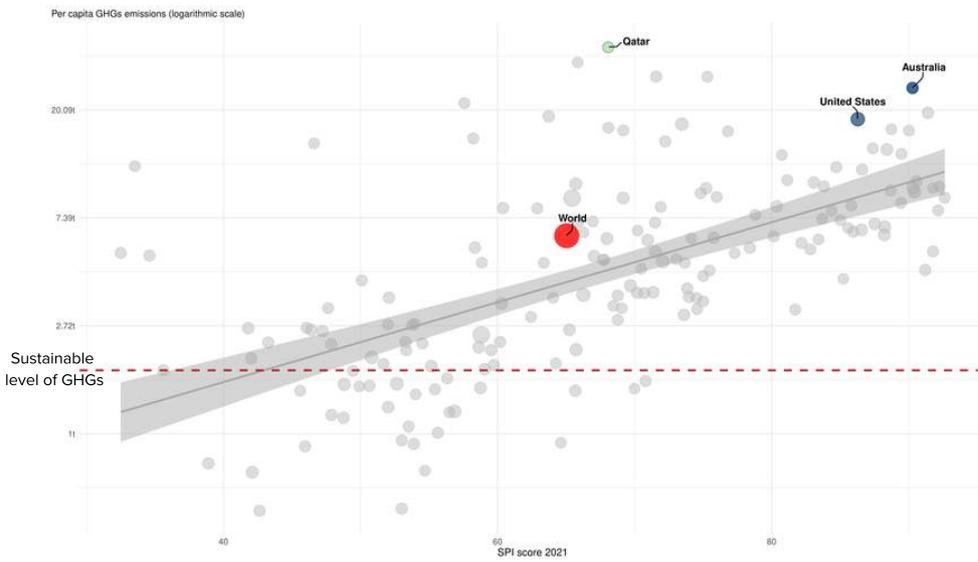


Figure 3

Greenhouse gas emissions per capita to the 2021 Social Progress Index. Highlighting some of the worst performing countries and the world, compared to the level of sustainable emissions.



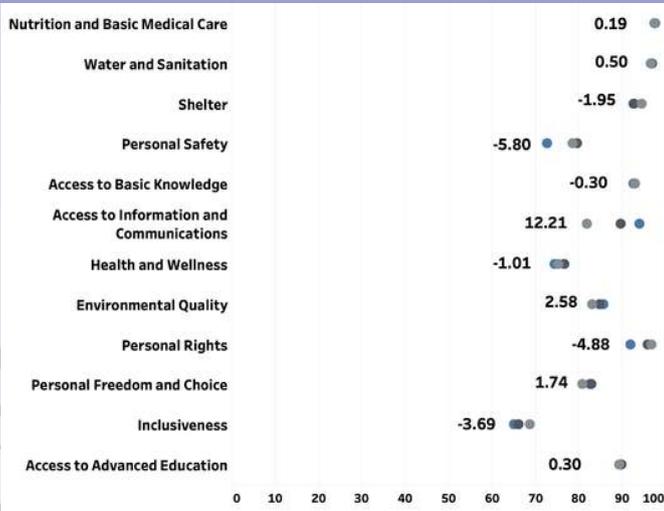
WHILE FOUR VERY DIFFERENT COUNTRIES, AN ANALYSIS OF HOW EACH OF THEM PERFORMED ON THE SOCIAL PROGRESS INDEX FOUND THAT ALL FOUR COUNTRIES HAD DECLINED IN THE COMPONENT THAT MEASURES PERSONAL RIGHTS OVER THE PAST 11 YEARS AND ALL BUT CHINA HAD DECLINED IN THE ONE THAT MEASURES INCLUSIVENESS.

³Scott Morrison: Australia PM to attend COP26 summit after global pressure. (2021, October 15). Retrieved from <https://www.bbc.com/news/world-australia-58907526>

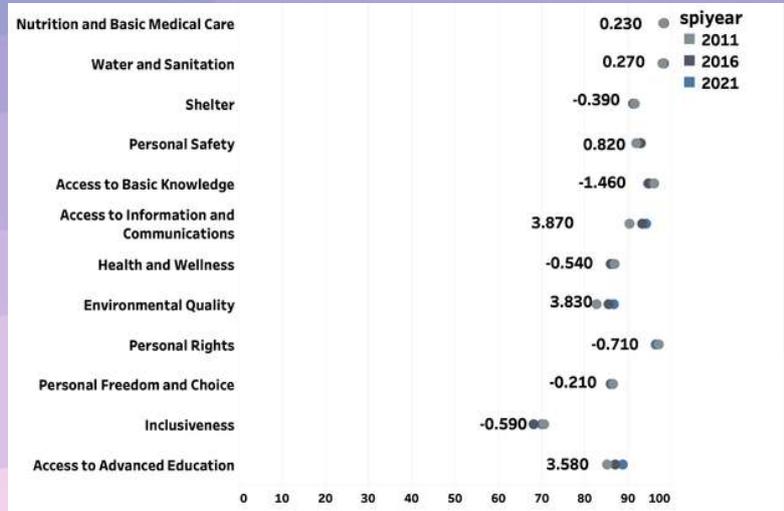
⁴Australia: You Can and Must Act Now to Address Climate Change. (n.d.). Retrieved from <https://www.globalcitizen.org/en/content/open-letter-australia-cop26/>

HOW THE SOCIAL PROGRESS INDEX SCORES OF INDIVIDUAL COUNTRIES HAVE CHANGED FROM 2011 TO 2021.

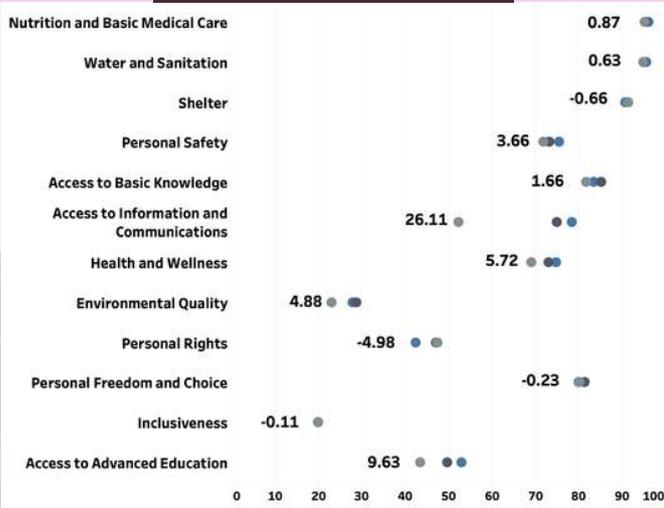
UNITED STATES



AUSTRALIA



QATAR



CHINA

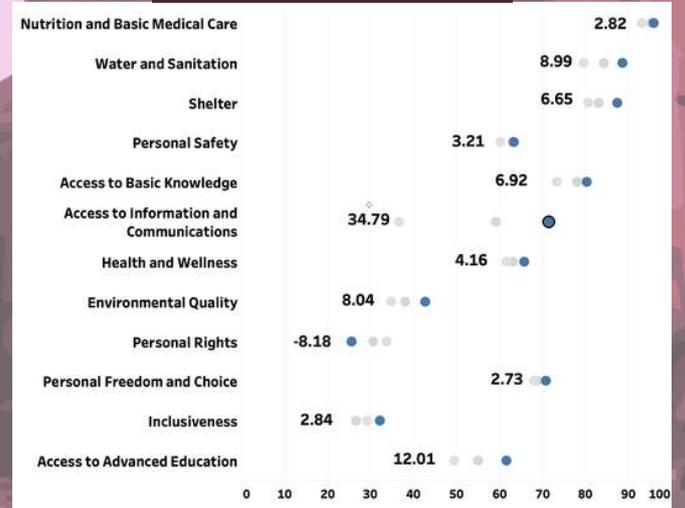
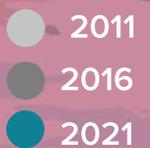


FIGURE 4





What if the answer to solving climate change was making progress in key areas of social development?

As well as weak performers, there are also countries that show that it is possible to be a healthy well-developed country that meets the needs of its people, while emitting much less harmful gases.

Comparing these best performers to the worst performers shows what is possible. Sweden scored highly on the 2021 Social Progress Index with a score of 91.20/100. Australia was close with a score of 90.28. Yet at 4.56 greenhouse gases per capita (GHGpc), Sweden emitted nearly 5 times less harmful gases than Australia at 24.63 GHGpc.

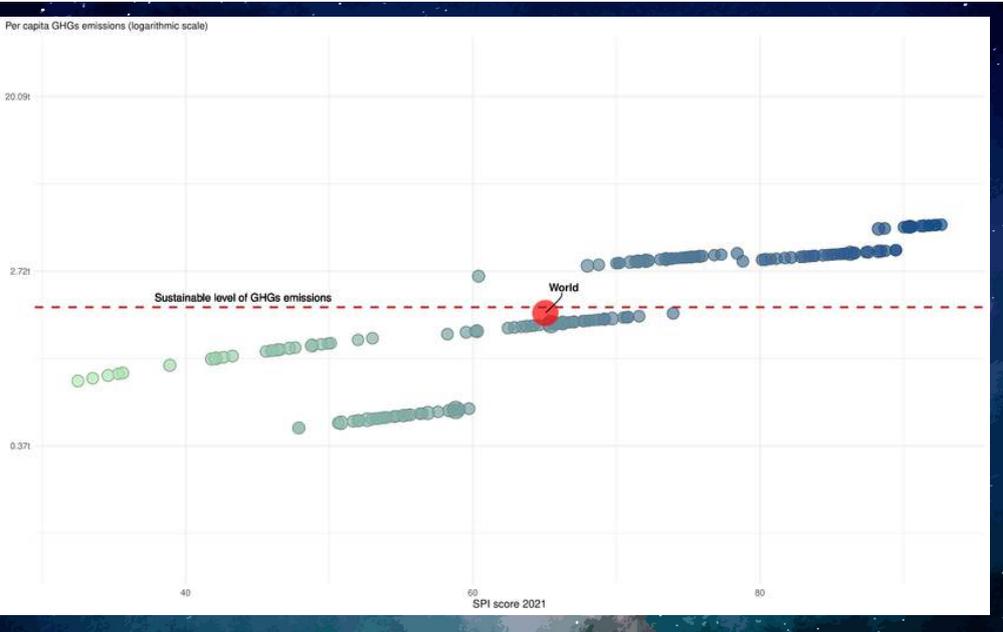


Figure 5

Greenhouse gas emissions per capita to the 2021 Social Progress Index. Highlighting some of the worst and best performing countries and the world, compared to the level of sustainable emissions.

Sweden emitted nearly **5X LESS** harmful gases per capita than Australia.

Similarly, Costa Rica at 81.73 had a similar score to the United States at 86.29, but the US was churning out nearly six times the amount of emissions per capita of Costa Rica for almost the same result in terms of meeting the needs of its people.



Even if we looked further down the level of social development, the trends continued, with some countries producing almost the same results in terms of societal outcomes for their people, but with vastly different impacts on the planet. Kuwait had scored 75.3 on the Social Progress Index and Jamaica 75.0, yet Kuwait's per capita emissions were 8 times that of Jamaica. Ghana's SPI score of 65.67 was close to Qatar's score of 68.07, but at 35.89 GHGpc Qatar emitted a staggering 24 times the amount of GHGs per capita than Ghana.

This was crucial information needed for COP26 to hold leaders to account because it showed what was possible. The emitters with the highest levels of greenhouse gas intensity, who developed at the highest cost to the environment, had to be the ones to lead the way. The world needed to see these countries, the United States, Australia, Canada and others, take responsibility and action to redress the impact their 'progress at any cost' mentality had on other countries.



Yet the actual future of humanity depended on China and India. The size of the countries made them the world's first and third worst emitters respectively, with China being responsible for over a quarter of the world's overall greenhouse gas emissions. Commitment and action from China in particular was crucial at COP26. If a firm commitment, along with a new path to sustainable development, did not emerge, then it would have signalled any hope that the world had of reversing climate change.

If the United States, Canada, Australia and other high emitting wealthy nations could put the needs of the planet and human life before their economies. It would be a big signal to the emerging giants to do the same.

Because if the rich world, with all of their resources and progress, would not make this sacrifice - then why should anyone else?

There would need to be sacrifices made to transition to economies less reliant on fossil fuels, but the long-term opportunity to reverse the effects of climate change far outweighed the short-term cost. By taking lessons learnt from other countries the world could understand what works and apply those learnings to make policy and investment decisions that not only benefited the planet, but which crucially benefited the people too.

Our data also showed that ever greater GHG intensity is not necessary for China, India and other emerging economies to grow and develop. They also have choices to prioritize more inclusive and sustainable growth paths, just as some of their peers have done. The right to develop does not require writing a blank cheque on GHG emissions.

Asking every country to emulate wealthy nations with easy access to green energy sources, such as Sweden, is unrealistic. But by looking at countries' emissions alongside peers at similar levels of development and social progress, we can get a much clearer sense of what is possible. The analysis showed that:

IF EVERY COUNTRY ACHIEVED EMISSIONS TARGETS COMPARABLE WITH THE MOST SUSTAINABLE COUNTRY AT THEIR LEVEL OF DEVELOPMENT, THE WORLD COULD ACHIEVE A SUSTAINABLE LEVEL OF GHGS.



What was it that Sweden, Costa Rica, Jamaica, Ghana and the other standout countries were doing right? What societal features did they possess that meant they had far better environmental outcomes, yet were able to advance developmentally at the same rate?

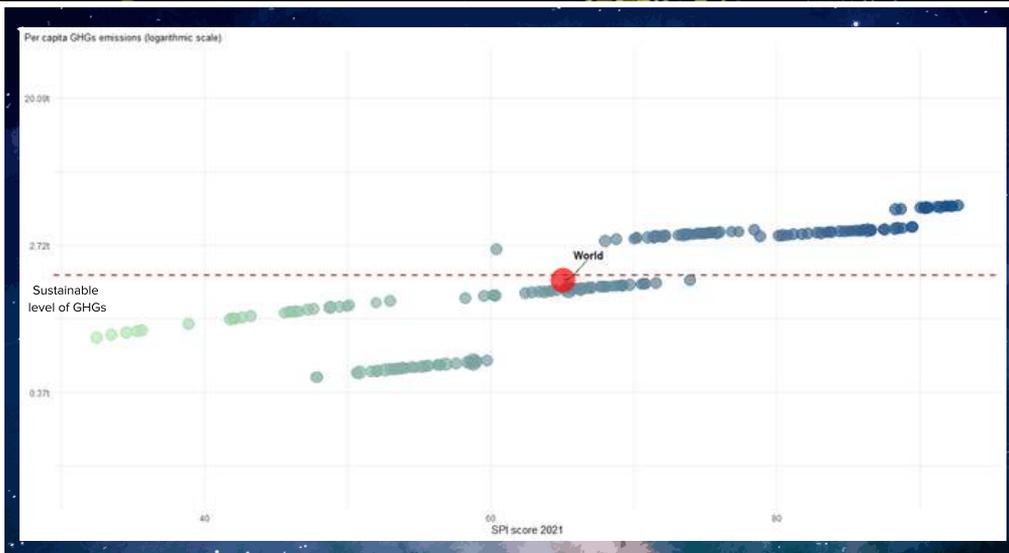


Figure 6

Countries' SPI scores and their level of emissions in 2021, if all countries achieved emissions levels comparable with the best of the countries at their level of development. The world would be below the sustainable threshold of 1.74t.

COUNTRY SPOTLIGHTS

FOR THE BULK OF THIS ANALYSIS AND WHERE NOT OTHERWISE INDICATED, WE USE DATA FROM THE 2021 SOCIAL PROGRESS INDEX.

Costa Rica's decision in 1948 to abolish the military⁵ and instead to prioritize funding healthcare and education has paid dividends.

The 2021 Social Progress Index highlighted that Costa Rica is doing far better than countries of similar income in several areas. Its people have access to good healthcare and good education. Their political rights and access to justice are well established and protected.

It is a much more inclusive country, they have more women in political office, there is greater socio-economic diversity in civic participation, and they are generally accepting of the gay and lesbian community.

There were many other key policy decisions and principles that the Costa Rican government developed over many years that resulted not just in sustainable development, but in strengthening the relationship between people and the environment. This includes the implementation of human rights related to environmental protection, special protection for indigenous communities, and prioritizing inclusive and sustainable trade, to name just a few.

⁵ Costa Rica's Constitutional Abolition. (2020, April 15). Retrieved from <https://www.futurepolicy.org/peace-and-security/military-spending/costa-ricas-abolition-of-the-army/>

In Ghana, it was clear there were similar trends to Costa Rica in the areas where it was doing much better than its economic peer group.

According to the United Nations Report, by 2021 Ghana achieved 65.3% of the sustainable development goals and had completely achieved targets of the SDGs 12, responsible consumption and production, and SDGs 13, climate action.⁶

Ghana depends heavily on the well-being of the environment, and as such focused efforts on public policies in favor of preserving the environment. Actions included opening 35 more operational offices of the Environmental Protection Agency (EPA) located in strategic areas that are the most vulnerable to climate change disasters,⁷ reducing Ozone Depleting Substances under the Montreal Protocol and leading the 2030 agenda with the creation of an Inter-Ministerial Technical Committee.

Ghana does better than countries with a similar level of income, in education, healthcare, and it also performs much higher in areas of personal rights. The people's political and justice rights are met to a greater degree and they have greater freedom of expression in the media and public domain. While recognizing the group of peer countries to which Ghana belongs, we also see that it does better in gender equity than others, women have more rights over property, a greater number have an advanced education and there are less cases of early marriage. The 40 Year Long Term Development Plan (2018-2057) they developed is a commitment to building an inclusive and equitable economy and society.⁸



⁶ United Nations Ghana. (n.d.). GHANA: UNCT Results Report 2020 (p. 16-18,Rep.). United Nations Ghana. Retrieved from https://ghana.un.org/sites/default/files/2021-08/UNCT_Ghana_2020_Results_Report_Final.pdf.

⁷ Environmental Protection Agency, Ghana (2021, October 01). EPA to set up 35 more offices to decentralise operations. Retrieved from <http://www.epa.gov.gh/epa/media/news/epa-set-35-more-offices-decentralise-operations>

⁸ Third World Network-Africa, Y. G. (n.d.). Ghana's socio-economic transformation and the imperative for equitable and inclusive development. Retrieved from <https://www.socialwatch.org/node/17501>

The trends in education, in rights and in an inclusive society continue when we look at Jamaica. Its people had better access to a good quality education and quality healthcare in comparison to other countries of similar income.

Jamaica recognized that in order to achieve sustainable targets, they had to acknowledge the other half of the population. It does better in areas of gender equity with the number of women in political office. The UN Women, the European Union, and ILO created the Win-Win: Gender Equality means Good Business program. It aimed to include women in the development of their country by empowering them to become leaders and businesswomen.⁹ The World Economic Forum 2021 report showed that Jamaica was one of the eight countries with 50% or more women working as managers.¹⁰

They also did better in property rights and in early marriage. It was also a far more inclusive country than its peers, with less violence and discrimination towards minorities, and more equality in politics.



⁹ UN Women. (2018, September 30). Jamaica's Gender Equality means Good Business Programme Launched. Retrieved from <https://caribbean.unwomen.org/en/news-and-events/stories/2018/9/jamaicas-gender-equality-means-good-business-programme-launched>

¹⁰ World Economic Forum. (n.d.). Global Gender Gap Report 2021 (March 2021 ed., p. 14, Rep.). World Economic Forum. Retrieved from https://www3.weforum.org/docs/WEF_GGGR_2021.pdf.



INCLUSIVE GROWTH IS SUSTAINABLE GROWTH

Economic growth requires energy and, in our current energy paradigm, energy produces greenhouse gases. Yet more inclusive countries, like Costa Rica and Ghana, showed that, by being more efficient at turning their GDP into social progress, it was possible to balance the needs of people and the planet. These countries showed that, by prioritizing the needs of their people, they had not just better social outcomes, but also better environmental ones. By following this model leaders created policies and made investment decisions that centered around what was best for people and for the planet. They chose the real things that matter to real people, and in doing so they made sure the planet was protected for future generations to come.

METHODOLOGY

Exploring the relationship between social progress (measured by the Social Progress Index, SPI) and greenhouse gas emissions (GHGs) per capita is the key step for analyzing SPI in terms of environmental sustainability. Although the relationship is positive overall (higher social progress is associated with higher GHGs per capita)¹, we find that there are significant disparities across countries in the “content” of GHGs per capita in their SPI. We express this content as a ratio of GHGs per capita over the SPI score which we call the SPI-GHG intensity. Countries considered as the best performing are those with the lowest SPI-GHG intensity - these countries achieve their level of SPI with the lowest damage to environmental sustainability and therefore have the most sustainable SPI. Based on this, for each SPI tier, we define a reference country with the lowest SPI-GHG intensity and its counterpart with the highest GHG-SPI intensity. From SPI tier 1 (highest social progress) to SPI tier 6 (lowest social progress), countries with the lowest SPI-GHG intensities are Sweden, Costa Rica, Jamaica, Ghana, Rwanda and Madagascar. In contrast, countries with the highest SPI-GHG intensity are Australia, the United States, Kuwait, Qatar, Cameroon and Laos.

We are now interested in an optimal but hypothetical scenario in which all countries in each SPI tier would have the best possible intensity (equal to that of the reference country for each respective SPI tier). In practice, we multiply the SPI score of each country by the intensity of the reference country from the respective SPI tier, in order to obtain hypothetical volumes of GHGs emissions that each country would emit if it had the optimal intensity. In this scenario, the World would reduce its GHGs by almost 4.6t per capita, bringing it to 1.68t – which would be below the sustainable threshold of 1.74t per capita² (Hickel 2021). This is of course a hypothetical scenario that would mean for some countries like Qatar and Bahrain to reduce their emissions by more than 30t per capita. Others, for example Switzerland, would have to reduce their emissions by less than 1t per capita.

¹ However, if we filter out the effect of GDP per capita, which is positively related to both SPI and GHGs, the relationship between SPI and GHGs per capita is negative (higher SPI is associated with lower GHGs per capita, controlling for GDP per capita). Moreover, there is a strong negative relationship between under/over-performance on SPI (against GDP per capita) and GHGs per capita: countries that perform relatively better on SPI (than what would be expected from their GDP per capita) have significantly lower GHGs per capita than countries that perform relatively worse on SPI (than what would be expected from their GDP per capita). Results of these analyses will be published later in separate papers.

² This sustainability threshold is based on CO2 emissions only. Since GHGs are higher because they include CO2 and other gases, it is fair to assume that the sustainability threshold for GHGs is a bit higher than 1.74t per capita.

The analysis above shows that if each country adopted the most sustainable performance from its respective SPI tier, the world would become sustainable in terms of GHGs per capita. But what if the level of social progress increases? If we assume that the countries grow in SPI in the next eleven years exactly as they have done over the past eleven years and they keep the best possible intensities from each SPI tier, the World would still be almost sustainable (GHGs at 1.78t per capita) even with the SPI score of 70 (which would be a five-point increase from 2021).

Based on our hypothetical demonstration we can see that the world could progress sustainably even within current energy schemes and realities. This is further supported if we look at the relationship between SPI and GHGs across SPI tiers. We find that as countries advance from one SPI tier to another, the positive relationship between SPI and GHGs weakens (following a relative decoupling process). Moreover, in the highest SPI tier, this relationship turns even negative, meaning that for countries with already high SPI, even higher SPI is associated with lower GHGs per capita (following an absolute decoupling process).

References

Hickel, J. (2020). The sustainable development index: Measuring the ecological efficiency of human development in the anthropocene. *Ecological Economics*, 167, 106331.