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## Problem with the Planetary-Pressures Adjusted HDI

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The Human Development Index when adjusted for sustainability is not very different from the old HDI. The Nordic countries which consume huge amounts of resources per capita continue to be on the top with high HDIs. A different approach will yield more 'sustainable' HDI ranks.

‘You see, but you do not observe’, Sherlock Holmes chided Dr Watson in Arthur Conan Doyle’s short story, *A Scandal In Bohemia*.

For decades, the world has seen Nordic countries such as Norway, Finland and Sweden as [paragons of sustainable development](#), applauding their biking lanes, electric vehicles, wind farms and carbon taxes.

But in our admiration, we have failed to observe the paradox shrouded by this compelling narrative.

Nordic countries indisputably enjoy impressive human well-being. But what is less well known is that they are also among the world’s [largest consumers of materials and emitters of carbon](#). So large, in fact, that if everyone had historically lived like the Norwegians or Danes, humanity’s aggregate footprint would have vastly exceeded the planet’s climate and ecological limits.

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Ironically, the Nordic model appears “sustainable” only because the majority of the world has not followed that path. What if we asked a different question instead: which countries have achieved decent living standards in a way that could be scaled worldwide without severely breaking planetary limits?

### Limits of current sustainability metrics

Prominent sustainability metrics including the United Nations Development Program (UNDP)’s recent [Planetary Pressures-adjusted Human Development Index](#) (PHDI), position Nordic countries as role models.

This is so because of the way they conceive ‘sustainable development’.

Conventional measures compare countries relative to one another, which works for social indicators such as health and education, where there are no natural limits to progress. But environmental health [operates within planetary boundaries](#), that is, biophysical limits that, if exceeded, risk [irreversible damage](#).

We are already witnessing early warning signs — the raging [California wildfires](#), the [slowing](#) Gulf Stream, the Amazon rainforest’s [drift toward savanna](#), and the accelerating loss of [polar ice](#). These are potentially catastrophic tipping points set in motion by human activities pushing towards planetary tolerance limits. Yet most metrics of sustainable development use the same logic of relative scoring for indicators of environmental health that they do for indicators of socio-economic health. This creates a dangerous mismatch.

Imagine two cars speeding in a 60 km/h zone: one at 240 km/h, the other at 150 km/h. While the latter is “better,” both are fundamentally unsafe. Similarly, a country consuming resources at three times the Earth’s capacity may appear sustainable compared to one consuming at five times, even though both are operating far beyond safe limits.

[Our research](#) shows that popular sustainability indices, including the PHDI, fall into this trap. They rank countries against each other rather than against the Earth’s biophysical limits. This explains why Nordic nations score so well: they’re being compared to even higher consuming countries such as Qatar and Kuwait, not to what our planet can actually sustain.

Relative scoring on planetary health conflates less *unsustainable* with truly sustainable.

### Rethinking sustainable development

The scalability test, as [we call it](#), reveals surprising answers. Middle-income countries such as Panama, Costa Rica and Sri Lanka emerge as leaders on our new index. These nations have achieved *high* to *very high* levels of human development (HDI of around 0.8),

but with resource use lower than the global average.

Consider Costa Rica. With [near-universal healthcare](#), a [98 percent literacy](#) rate, and [life expectancy](#) matching many developed nations, it achieves these outcomes while using just a fraction of the resources consumed by Nordic countries. Its [constitutional abolition](#) of the military in 1948 freed up resources for social spending, demonstrating that strategic choices can decouple human development from excessive consumption.

Similarly, Sri Lanka's [early investments](#) in universal education and healthcare have yielded HDI far above its South Asian neighbours despite limited resources.

These alternatives are not without challenges. Sri Lanka's 2021/22 [economic crisis](#) highlights the vulnerability of middle-income nations to external shocks. Even so, they prove that high human development can occur at far lower ecological cost than in most high-income countries. However, truly sustainable development will require a [fundamental rethinking](#) of our growth-based economic model.

## Reimagining development

Our research points to three shifts needed to align development with planetary boundaries.

First, we must move beyond the Nordic mirage. This doesn't mean merely substituting Nordic countries with Costa Rica or Sri Lanka as role models. Rather, it means recognising that valuable insights for sustainable development can come from both Global South and North, learning from both successes and failures.

Second, we must revise our conception of a developed nation. We propose that a truly developed country is one whose lifestyle could provide a dignified life to all of humanity while remaining within Earth's capacity to provide. This reconception reflects how recent advances in the Earth sciences can inform our conception of development.

Third, we must develop new metrics that accurately reflect both human and planetary well-being. These metrics must be a reimagining — not merely retrofitting of existing indices — that draws on insights from ecologists, physicists and social scientists too, besides economists and statisticians.

The future of sustainable development lies not in chasing impossible models but in forging new pathways that respect planetary limits while ensuring dignity for all.

To draw, once again, from Holmes' enduring wisdom: we must twist the theory of development to suit the 21st century facts of planetary health, instead of twisting the facts to perpetuate an outmoded theory.

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