

SUSTAINABILITY: THE NEED OF THE FUTURE

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ABSTRACT

This paper explores the understanding and evolution of the term sustainability and how it has come to dominate the priorities of states to include more sustainable goals and budgets as a part of their governance models. It also explores the limitations of governmental efforts, particularly owing to political short termism, budgetary reassignments and lobbying by big business conglomerates. The paper ends on a cautionary note, reminding the readers of the impending crisis and the need for swift, collective, sincere action towards achieving the sustainable development goals.

Keywords: Sustainability, Sustainable Development, Brundtland Commission, Our Common Future, Environmental Degradation Causes.

Introduction

Sustainability is broadly described as meeting the present needs without compromising the ability of future generations to meet their own needs. In addition to natural resources, one needs social and economic resources. Sustainability is not just environmentalism, embedded in most definitions of sustainability we also find concerns for social equity and economic development.

While the concept of sustainability is a relatively new idea, the movement as a whole has roots in social justice, conservationism, internationalism and other past movements with rich histories. By the end of the twentieth centuries, many of these ideas had come together in the call for 'sustainable development'. This has further been backed by international organizations like the United Nations and supported by governments globally.

The Brundtland Commission

In 1983, the United Nations tapped former Norwegian Prime Minister Gro Harlem Brundtland to run the new World Commission on Environment and Development. After decades of effort to

raise living standards through industrialization, many countries were still dealing with extreme poverty. It seemed that economic development at the cost of ecological health and social equity did not lead to long-lasting prosperity. It was clear that the world needed to find a way to harmonize ecology with prosperity.

After four years, the “Brundtland Commission” released its final report, Our Common Future. It famously defines sustainable development as: development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The Commission successfully unified environmentalism with social and economic concerns on the world’s development agenda.

Dimensions of Sustainability

Sustainability is a holistic approach that considers ecological, social and economic dimensions, recognizing that all must be considered together to find lasting prosperity. A sustainable future would comprise of the following aspect:

- **Environmental Sustainability:** Ecological integrity is maintained, all of earth’s environmental systems are kept in balance while natural resources within them are consumed by humans at a rate where they are able to replenish themselves.
- **Economic Sustainability:** Human communities across the globe are able to maintain their independence and have access to the resources that they require, financial and other, to meet their needs. Economic systems are intact and activities are available to everyone, such as secure sources of livelihood.
- **Social Sustainability:** Universal human rights and basic necessities are attainable by all people, who have access to enough resources in order to keep their families and communities healthy and secure. Healthy communities have just leaders who ensure personal, labour and cultural rights are respected and all people are protected from discrimination.

Pillars of Sustainability



The Environmental Crisis as it Stands today

Humans are “eating away at life support systems” at a rate unseen in the past 10,000 years by degrading land and freshwater systems, emitting greenhouse gasses and releasing vast amounts of agricultural chemicals into the environment, new research has found. Two major new studies by an international team of researchers have pinpointed the key factors that ensure a livable planet for humans, with stark results.

Of nine worldwide processes that underpin life on Earth, four have exceeded “safe” levels — human-driven climate change, loss of biosphere integrity, land system change and the high level of phosphorus and nitrogen flowing into the oceans due to fertilizer use. Researchers spent five years identifying these core components of a planet suitable for human life, using the long-term average state of each measure to provide a baseline for the analysis.

They found that the changes of the last 60 years are unprecedented in the previous 10,000 years, a period in which the world has had a relatively stable climate and human civilisation has advanced significantly. Carbon dioxide levels, at 395.5 parts per million, are at historic highs, while loss of biosphere integrity is resulting in species becoming extinct at a rate more than 100 times faster than the previous norm.

Since 1950 urban populations have increased seven-fold, primary energy use has soared by a factor of five, while the amount of fertilizer used is now eight times higher. The amount of nitrogen entering the oceans has quadrupled. All of these changes are shifting Earth into a “new state” that is becoming less hospitable to human life, researchers said.

“These indicators have shot up since 1950 and there are no signs they are slowing down,” said Prof Will Steffen of the Australian National University and the Stockholm Resilience Centre. Steffen is the lead author on both of the studies. “When economic systems went into overdrive, there was a massive increase in resource use and pollution. It used to be confined to local and regional areas but we’re now seeing this occurring on a global scale. These changes are down to human activity, not natural variability.”

Steffen said direct human influence upon the land was contributing to a loss in pollination and a disruption in the provision of nutrients and freshwater. “We are clearing land, we are degrading land, we introduce feral animals and take the top predators out, we change the marine ecosystem by overfishing — it’s a death by a thousand cuts,” he said. “That direct impact upon the land is the most important factor right now, even more than climate change.”

There are large variations in conditions around the world, according to the research. For example, land clearing is now concentrated in tropical areas, such as Indonesia and the Amazon, with the practice reversed in parts of Europe. But the overall picture is one of deterioration at a rapid rate.

“It’s fairly safe to say that we haven’t seen conditions in the past similar to ones we see today and there is strong evidence that there [are] tipping points we don’t want to cross,” Steffen said.

“If the Earth is going to move to a warmer state, 5-6°C warmer, with no ice caps, it will do so and that won’t be good for large mammals like us. People say the world is robust and that’s true, there will be life on Earth, but the Earth won’t be robust for us.

“Some people say we can adapt due to technology, but that’s a belief system, it’s not based on fact. There is no convincing evidence that a large mammal, with a core body temperature of 37°C, will be able to evolve that quickly. Insects can, but humans can’t and that’s a problem.”

Steffen said the research showed the economic system was “fundamentally flawed” as it ignored critically important life support systems.

“It’s clear the economic system is driving us towards an unsustainable future and people of my daughter’s generation will find it increasingly hard to survive,” he said. “History has shown that civilisations have risen, stuck to their core values and then collapsed because they didn’t change. That’s where we are today.”

The two studies, published in *Science* and *Anthropocene Review*, featured the work of scientists from countries including the US, Sweden, Germany and India. The findings will be presented in seven seminars at the World Economic Forum in Davos.

How Can Governments Adopt More Sustainable Practices?

Economies can only grow sustainably if they simultaneously manage the growing urgency of environmental degradation and climate change. Aside from the catastrophic impact on the lived environment — such as depletion of natural resources, frequent and intense drought and extreme weather events — failure to tackle these threats will heighten health and social inequalities, and push millions of people into extreme poverty. It will also undermine countries' resilience to future shocks.

The situation is already grave, with the planet on a path to a 2.7 °C temperature rise by the end of this century,¹ based on national CO₂ emissions pledges made prior to the COP26 summit — well above the 1.5 °C Paris Agreement target. Continuation of this trajectory would cut total global economic value by 10% by 2050, according to Swiss Re.

Following COP26 in Glasgow, many countries have raised their ambitions. But according to the International Energy Agency (IEA) the latest pledges still leave a significant gap in the emissions reductions needed by 2030 to keep 1.5 °C within reach.

Plastic flowing into the oceans is expected to nearly triple in volume in the next 20 years, adversely affecting our ecosystems, health and economies.⁴ And the UN estimates that agricultural production will need to increase by about 50% by 2050 to keep pace with rising demand for food.⁵ But food systems cause as much as a third of greenhouse gas emissions, up to 80% of biodiversity loss and use around 70% of freshwater reserves.

The scale of action required cannot be underestimated. It requires a fundamental transformation of all sectors, including energy, manufacturing, transport, infrastructure, agriculture, forestry and land use. Humans must also radically rethink how we produce and consume food and fuel and manage waste.

Market forces alone won't solve the problem and the onus is on governments to take the lead. Many have set targets — some enshrined in law — to achieve net-zero carbon emissions by specified dates (from as early as 2030 in Uruguay and 2035 in Finland to 2050 for most other countries).⁶ Crucially, the world's two biggest emitters, the US and China, have both committed to carbon neutrality by 2050 and 2060 respectively. The EU is also setting the pace with a new set of policies to achieve its sustainability goals: the EU Green Deal and Climate Law set binding targets to cut emissions by 55% by 2030 (from 1990 levels) and to reach climate neutrality by 2050.

Governments can choose from a wide range of policy interventions and financing measures to support the transformation of energy and industrial systems, improve energy efficiency, tackle

environmental pollution, and protect and replenish natural capital.

Many are adopting a stick and carrot approach, including green taxes on harmful environmental activities, tighter regulations, and new environmental standards and certification for energy performance, emissions and pollutants – including tax rebates for meeting these standards. We also see many examples of loans and grants for green investments in sustainable agriculture, renewable or low-carbon energy sources, energy-efficient buildings, public walkways and cycleways and electric vehicle (EV) infrastructure.

Subsidies and tax rebates are additional tools to boost demand for green products and services like EV, solar panels or renewable energy. Governments are also offering subsidies and grant funding to research institutes, academic institutions and private R&D firms to boost innovation and develop transformative technologies such as renewable energy, carbon capture, waste management, and energy efficiency.

Germany committed €2.5 billion for investment in EV infrastructure and a €9,000 subsidy per vehicle to encourage adoption. In Shenzhen, China, the three major bus operators were incentivized to transition to EV through an annual subsidy of USD 75,500 for each vehicle. And in Vietnam, installations of rooftop Solar PV capacity have increased by 2,435% since the beginning of 2019, driven mainly by a feed-in-tariff scheme.

Then there's direct public investment in nature-based solutions and agriculture to protect nature's ecosystems and create a sustainable food system — including afforestation, wetlands restoration, wildfire prevention and water irrigation. The Pakistani government, for example, has earmarked between US\$800 million and US\$1 billion over the next four years for an afforestation program to capture carbon while also creating job opportunities for thousands of low-skilled workers.

The massive COVID-19 stimulus packages provide an opportunity for countries to incorporate these measures into their recovery plans — returning their economies to growth while meeting environmental goals. For example, funding from the EU Commission's Recovery and Resilience Facility (RRF) is contingent on climate goals, demanding at least 37% of countries' expenditure on green initiatives. Similarly, the US Infrastructure Investment and Jobs Act provides US\$1 trillion for investments targeting sustainability.

However, green stimulus measures fall well short of what's needed. The Greenness of Stimulus Index assessed the environmental impact of US\$17.2 trillion of stimulus across 30 countries and found more negative than positive environmental policy interventions.

Additionally, the 2020 Sustainability Leaders survey from GlobeScan concluded that national governments lacked leadership on sustainable development – further evidence of the need for

more decisive state interventions to tackle the increasing global sustainability challenges.

What is holding governments back?

A number of factors are preventing governments from realizing their sustainability ambitions:

- **Political short-termism:** Despite much political rhetoric pledging change, governments are often swayed by public opinion, populist media and short-term political cycles, which can derail policies to address complex, longer-term challenges. Without defined budgets, policies, regulations or detailed sector plans and targets to underpin pledges, it's hard to evaluate progress.
- **Competing priorities for policies and funding:** The COVID-19 recovery is putting a further strain on public finances already challenged by record levels of debt. This may reduce funds for green investments and change donor organizations' priorities on climate action. Siloed cultures can also hinder cooperation between government departments, with conflicting aims preventing a coordinated environmental effort.
- **Economic pressures and industry lobbying:** Many governments are under pressure to preserve established carbon-intensive or "brown" industries, such as airlines and manufacturing, which are strategically important and account for a significant share of jobs and GDP. G7 countries have allocated more than US\$189 billion of recovery funds to support fossil fuel industries,¹¹ and some business lobby groups are even urging a rollback of environmental protections to stimulate economic recovery. The Federation of Korean Industries argues that manufacturing plays a large part in production and employment and that a drastic carbon reduction target could impede efforts to create jobs and encourage economic vitality.
- **Poor planning and implementation:** Governments must create the right conditions for sustainability and some initiatives have failed to take account of key dependencies. In the UK, for example, the failure of the government's Green Homes scheme has been attributed to rushed design and implementation. Lack of engagement with the industry, coupled with the scheme's short duration, made it hard for energy efficiency installers to mobilize to meet demand.
- **Lack of priority and transparency from governments:** The UK's National Audit Office surveyed Audit and Risk Assurance Committees across government to gauge climate change risk maturity. Although four out of five considered climate risks to be relevant to their organization, over half had no climate or sustainability risk policy nor a dedicated accountable employee.¹⁴ And while reporting on environmental, social and governance

(ESG) issues has become more common in the private sector over recent years, sustainability reporting in the public sector is in its infancy. An international survey of public sector organizations shows that more than half (56%) do not currently report on their climate impact.

Conclusion

Climate change is impacting human lives and health in a variety of ways. It threatens the essential ingredients of good health - clean air, safe drinking water, nutritious food supply, and safe shelter - and has the potential to undermine decades of progress in global health.

Between 2030 and 2050, climate change is expected to cause approximately 250 000 additional deaths per year, from malnutrition, malaria, diarrhea and heat stress alone. The direct damage costs to health is estimated to be between USD 2-4 billion per year by 2030.

Areas with weak health infrastructure – mostly in developing countries – will be the least able to cope without assistance to prepare and respond. WHO supports countries in building climate-resilient health systems and tracking national progress in protecting health from climate change. The impact of climate change on ordinary human lives is immense. This makes it important for governments, international agencies etc. to coordinate efforts towards achieving the sustainable development goals set out, and make earnest efforts to make the planet sustainable for all.

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