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Schoolchildren in Bhutan, which developed a gross national happiness index to measure the well-being of its citizens.

Beyond growth – why we need to agree on an alternative to GDP now

Robert Costanza, Joseph Eastoe, Rutger Hoekstra, Ida Kubiszewski & Daniel W. O'Neill

The world needs to move towards an approach to measure well-being rather than economic growth. Here's how that can happen.

Gross domestic product (GDP) was never designed to be a measure of societal well-being. It tracks only market transactions, conflates costs and benefits, and ignores the distribution of income, the contributions of household labour and volunteer work, and social and environmental costs and benefits.

In the decades after the Second World War, GDP growth functioned as a reasonable proxy for well-being when rebuilding economies and increasing production and consumption were

the main priorities. However, since about 1950, which some call the Anthropocene era, ecological limits, inequality and declining social cohesion have restricted further improvements in well-being. At the same time, the rapid development of artificial intelligence promises fresh opportunities and challenges.

Measuring and modelling what truly matters, not just market transactions, is now essential. Processes are under way to develop indicators that move beyond GDP. In May, the United Nations secretary-general António Guterres appointed a High-Level Expert Group to develop such measures, with a focus on balancing economic, social and environmental dimensions of well-being. This initiative builds on the 2015 Sustainable Development Goals (SDGs): target 19 of SDG17 commits governments to adopt beyond-GDP metrics by 2030.

Yet progress remains slow. Overcoming decades of structures built around GDP is difficult. Nonetheless, several governments, including those of New Zealand, Scotland, Wales and

Bhutan, have experimented with alternatives to GDP¹ (see also go.nature.com/3ktuvhv). Others should follow suit, but it will be a steep climb.

Shifting all societies from a narrow focus on GDP growth to a comprehensive understanding of the multiple factors that support well-being and prosperity, and of how these factors interact over space and time, demands consensus on another approach². Over the past seven decades, researchers and institutions have proposed hundreds of alternatives to GDP.

Paradoxically, this proliferation has helped GDP to keep its privileged status, by creating the impression that there is little agreement on what sustainable and inclusive well-being means or how to measure it. In fact, there is much that these approaches do agree on.

Here, we identify areas of common ground and propose four ways forward: universally adopting the goal of sustainable and inclusive well-being; establishing agreed metrics to evaluate progress towards this goal; developing models that incorporate the drivers

Comment

and dynamics of well-being; and addressing institutionalized societal ‘addictions’ that reinforce unsustainable behaviours.

Embrace sustainable and inclusive well-being

The concept of sustainable and inclusive well-being – encompassing the well-being of all people and of the ecosystems that sustain life – is emerging as a widely accepted overarching policy goal that can provide common ground for beyond-GDP metrics, models and policies.

By assigning a central role to natural ecosystems and planetary boundaries, the concept acknowledges that human prosperity depends on healthy ecological systems. Respecting ecological limits by constraining the material scale of the economy is therefore a precondition for lasting well-being. It also demands that human societies prevent significant harm to other species, protect the rights of future generations and guarantee that all people today have access to essential resources, services and participatory forms of decision-making.

A 2009 report on the measurement of economic performance and social progress, chaired by economist Joseph Stiglitz, laid the groundwork for moving beyond GDP³. Since then, international bodies, including the UN, the European Commission and the Organisation for Economic Co-operation and Development (OECD), have progressively adopted this conceptual foundation. Full international enforcement should follow; however, this might depend on a more-receptive US administration and stronger demand from civil society.

Agree on well-being indicators

Converging on an approach to evaluating sustainable and inclusive well-being is important if policymakers and organizations such as the UN are to embed these measures into official reporting and budgetary processes. Studies suggest that this is possible.

Although more than 200 beyond-GDP indicators have been proposed, they share many similarities. These indicators often use different terminology to describe contributors to sustainable and inclusive well-being⁴. For example, ‘health’ might refer to mental health, physical health, health care, child welfare or any of more than 400 variants. Semantic modelling of the components of each indicator, which looks at the similarity between them, nevertheless reveals a high degree of agreement⁵. Nineteen key components capture a large proportion of the similarity (see ‘Well-being components’).

Researchers and policymakers, led by an international convening body such as the UN, should now establish a core set of around 20 components to serve as the backbone of national statistical reporting and UN frameworks. The UN High-Level Expert Group and the ongoing update of the SDGs are already advancing the agenda. The expert group has

committed to an inclusive process that invites contributions from all stakeholders.

Interested parties are encouraged to submit ideas and insights to help strengthen the emerging global consensus (see go.nature.com/4gcebvr). This month, the expert group launched an online consultation about its progress, and is expected to

“Citizens already know what matters and understand that GDP does not measure it.”

present its recommendations in the first half of 2026, which falls within the 80th session of the UN General Assembly. After this, inter-governmental processes will consider their recommendations.

Other efforts include the UN System of Environmental Economic Accounting and the UN System of National Accounts 2025 initiative, which are revising economic accounts to include more well-being components. The 2024 UN Pact for the Future and recommendations from the secretary-general’s *Our Common*

Agenda report call for measures of progress that complement GDP. But these efforts need help from researchers and the consensus recommendations of the High-Level Expert Group.

The UN can also play a central part in strengthening institutional capacity and securing stable funding to support the regular production of national estimates. Advances in citizen science, social-media analytics and remote sensing offer opportunities to reduce costs and improve data reliability. The world is awash with big data, so directing even a fraction of these resources towards measuring sustainable and inclusive well-being would enhance global monitoring and policy effectiveness.

Develop dynamic models that go beyond GDP

GDP has retained its dominance partly because it is embedded in the models that underpin national accounts and policy analyses. For example, the input–output model developed by economist Wassily Leontief⁶ tracks monetary flows across sectors and into ‘final demand’, defined as GDP.

Mainstream macroeconomic models also place growth at the centre of policy evaluation. For example, standard computable general equilibrium models assume a high degree of substitutability among factors of production, implying that labour or technology can largely replace natural resources. They neglect environmental limits and exclude well-being, equity and ecological integrity. Most importantly, they are optimization models that are intended to maximize a single objective – GDP – rather than being designed to evaluate policies against multiple goals, as is required for sustainable and inclusive well-being.

New models are needed. These must be dynamic, nonlinear and represent the economy as a subsystem of society embedded in the biosphere. Such models must be able to compare resource use and pollution to environmental limits, and social outcomes to the thresholds required to meet human needs⁷. They must track both stocks (natural, human, social and built capital) and flows (including monetary transactions, ecosystem services and social benefits) and capture their interactions, including feedbacks from transgressing environmental limits. Ecological macroeconomic models, rooted in the field of ecological economics, are one promising approach⁸.

Ecological macroeconomic models that incorporate measures of sustainable and inclusive well-being can be used to simulate trade-offs, synergies and pathways towards sustainable prosperity, rather than the impossible pursuit of perpetual GDP growth. Such models must recognize that nature cannot be replaced indefinitely, and must limit the decoupling of economic activity and resource use to rates that are realistic. A robust representation of how resources, wealth and

Well-being components

These 19 core factors are common to most beyond-GDP indicators⁵.

Human

Life satisfaction
Health
Life expectancy at birth
Education

Social

Crime
Civic engagement
Governance
Income equality
Gender equality

Built

Housing
Infrastructure
Financial security
Employment
Per capita consumption
Business health

Natural

Natural capital
Water quality
Air quality
Greenhouse-gas emissions



Market workers in Kenya. Employment is a core factor in many indicators of well-being.

income are distributed within and between countries is also essential.

Versions of such models exist^{9–12} (see also go.nature.com/3wmtrjd). These and other efforts are advancing in close collaboration with attempts to build consensus around well-being indicators. This collaboration, which was mostly absent in the past, is essential for moving beyond GDP. Projects such as MAPS, WISE Horizons and MERGE, all funded by the European Union, are actively working towards this integration.

Treat societal addictions

Despite growing recognition that development must shift towards sustainable and inclusive well-being, groups with vested interests in the status quo hamper progress. These include the fossil-fuel industry, the financial sector and entrenched economic and political elites. Their influence is substantial, and they deploy it to resist change.

The fossil-fuel sector, for example, invests heavily in lobbying, campaign financing and the spread of misinformation, while imposing vast unaccounted external costs on society, such as those of climate change. The International Monetary Fund (IMF) estimated that global fossil-fuel subsidies reached US\$7 trillion in 2022 (see go.nature.com/3tuq6qk). One analysis suggests that, for each dollar invested in political campaigns, oil companies receive returns of at least \$400 in subsidies and tax benefits¹³.

Exposing these relationships can influence policymakers, but transparency alone cannot dismantle entrenched systems. Unless the reinforcing mechanisms that sustain these interests are disrupted, their influence will persist. The IMF projects that, unless there is intervention, fossil-fuel subsidies will continue to rise until 2030 – delaying the energy transition and deepening climate risks. Political actions, such as efforts by the Trump administration

to slow the deployment of renewable energy, underscore how institutional power can reinforce dependency.

In effect, societies are ‘addicted’ to the current growth-driven system¹⁴. Overcoming this addiction requires developing strategies that challenge and dislodge the structures that perpetuate harmful incentives. Addiction therapy shows that directly confronting individuals with the harms they cause to themselves and others rarely motivates change. More often, such confrontations provoke denial and entrenchment. Yet this approach characterizes many strategies aimed at shifting societal behaviour. Simply emphasizing dire long-term consequences without offering positive alternatives can make change even harder.

For some people, the therapeutic approach of motivational interviewing has proved effective at prompting change¹⁵. Engaging individuals in a non-judgemental dialogue often helps them to articulate a positive vision of a better life, which motivates them to make the difficult changes needed to overcome their addiction. Applying this analogy at the societal level means engaging communities, nations and the world in deliberating and envisioning alternative futures, then building consensus around preferred pathways¹⁴.

Achieving the transition to a world in which vested interests no longer exert undue influence over political decisions will also require a critical mass of citizens. This might take the form of a ‘movement of movements’: an alliance of initiatives united by a shared vision of sustainable and inclusive well-being. Constructing such a coalition demands clarity about its overarching goals and widely accepted metrics, models and policies.

The Well-being Economy Alliance (WEAll), for example, seeks to connect hundreds of organizations and millions of individuals who already share the ambition of building economies centred on well-being rather than

on growth. A movement of movements of this scale could complement a broader global alliance involving key international organizations, including the UN, OECD and EU, alongside leading experts, to coordinate efforts and take the decisive step beyond GDP.

Citizens already know what matters and understand that GDP does not measure it. Researchers know that current models fail to capture the system’s complexity or dynamics. The task now is to embed agreed well-being metrics and models into practice in statistical offices, policy institutes and ministries, supported by international agencies and the many civil-society movements already working for the shared goal of sustainable and inclusive well-being.

Overcoming the world’s addiction to GDP will require collective commitment. The current global ‘polycrisis’ might create a rare window of opportunity for transformative change, and the alternatives outlined here are ready to step forward.

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