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October 5, 2023

### Limitations of GDP I

- GDP is undoubtedly a valuable metric for assessing economic performance, but GDP has several significant limitations:
- Neglect of Quality of Life: GDP focuses solely on economic activity and does not take into account the quality of life of a nation's citizens. It does not differentiate between activities that enhance well-being (e.g., healthcare and education) and those that degrade it (e.g.,

pollution and crime).

Ignoring Income Inequality: GDP can rise while income inequality deepens, leaving many citizens behind. This disconnect between economic growth and the distribution of wealth can lead to social unrest and dissatisfaction.

### Limitations of GDP II

- Environmental Impact: GDP fails to account for the environmental cost of economic activities. A nation's GDP can increase while natural resources are depleted, ecosystems degraded, and carbon emissions rise.
- Neglecting Non-Market Activities: Unpaid labor, including caregiving and volunteer work, is not considered in GDP calculations. This undervalues the crucial role of these activities in society.

## Going Beyond GDP I

- Human Development Index (HDI): The HDI combines GDP with indicators of health (life expectancy) and education (years of schooling and expected years of schooling). Genuine Progress Indicator (GPI): The GPI adjusts GDP for income distribution, environmental degradation, and non-market activities. It offers a more accurate reflection of a nation's true progress.
- Well-being and Happiness Index: Measures of happiness, life satisfaction, and well-being provide valuable insights into people's subjective experiences, which GDP cannot capture. Sustainable Development Goals (SDGs): The United Nations' SDGs offer a comprehensive framework that goes beyond economic growth to address issues such as poverty, inequality, environmental sustainability, and social justice.

#### Going Beyond GDP II

Inclusive growth and efforts to go beyond GDP undertaken by the Organisation for Economic Cooperation and Development, the European Commission, the World Bank and the International Monetary Fund.

Measures of environmental degradation and depletion, environmental and economic accounting and measures of inclusive or comprehensive wealth by the United Nations Environment Programme and the World Bank

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#### Ecological Footprint and Biocapacity: How to Escape Overshoot

The ecological footprint as a powerful and widely used indicator of sustainability that assesses the environmental impact of human activities and consumption patterns on the planet.

This concept was developed to address the pressing issue of ecological overshoot, where humanity's resource consumption exceeds the Earth's capacity to regenerate those resources and absorb waste.

## Definition of Ecological Footprint

The ecological footprint measures the demand that human activities place on the Earth's ecosystems by quantifying the area of biologically productive land and sea required to produce the resources consumed by a population and absorb its waste.

It is typically expressed in global hectares (gha) or acres per capita and considers various factors, including food, energy, housing, transportation, and goods consumption.

## The EF Indicator is the Right Indicator of Sustainability

The ecological footprint provides a comprehensive assessment of human impact on the environment. It accounts for not only resource consumption but also the carbon emissions associated with these activities and the waste associated with their production and use, making it a valuable tool for understanding the overall environmental burden.

#### **Global and Local Perspectives**

- The ecological footprint is a global metric, making it effective for international comparisons. It highlights disparities in consumption and resource use between countries and regions, raising awareness of global sustainability challenges.
- The ecological footprint (and biocapacity) is highly scalable from global to individual and every level of aggregation in between. This enhances the capacity of the ecological footprint to motivate and inform action.

## National Ecological Footprint and Biocapacity Accounts

- Accounts report on metrics of Biocapacity and Ecological Footprint of national production, international trade, and national consumption.
- Accounts currently available for 247 territories and the world from 1961-2022. Annual updates incorporate the latest UN data.
- It is time that the ecological footprint and biocapacity be adopted as official statistics by government statistical agencies, starting with the UNSG.

# Image: Second state Relates to SEEA Ecosystem Accounts (physical accounts)

#### Quantifies supply and demand of flows



#### Adds value to UN data

Integrates important UN data from FAO (e.g. PopStat, ProdStat, TradeStat, ResourceStat, FishStat) and Comtrade, World Bank, IEA, and other sources.

Accounts are produced using algorithms that clean spurious data points and infill missing data, with the result of reporting on nations, and timeframes, beyond when there might be official data.

### Can inform pursuit of SDGs

SDG 12: Footprint of consumption and production relates to capacity of ecosystems to sustain this.

 SDG 13: Accounts incorporate carbon emissions plus other demands on ecosystems relevant to land use/cover related to achieving net zero emissions.
 SDG 14: Aquatic biocapacity detailed.
 SDG 15: Terrestrial biocapacity detailed.

#### Relates to Net Zero pathways

Helps to measure possibilities and constraints of getting to net zero emissions through possible changes in land use/cover and emission reductions.

Proposals for afforestation, greater use of biofuels, greater use of renewable materials, and greater circularity in economic flows all relate to trade-offs of components of Ecological Footprint.

#### Sustainability Communication

It serves as a useful communication tool to convey the urgency of sustainability issues to the public and policymakers. The visual representation of overshoot can be a compelling way to advocate for sustainable practices.

Monitoring changes in ecological footprints over time can reveal trends in sustainability. A decreasing footprint may indicate progress toward more sustainable lifestyles and production methods

## Education and Awareness and Policy Planning Tool

- The ecological footprint concept can be a valuable educational tool, fostering a deeper understanding of the interconnectedness between human activities and the environment. It encourages individuals to make more informed choices.
- Governments and organizations can use the ecological footprint as a guide for policy development and urban planning. It helps identify areas where resource efficiency improvements are needed and informs strategies for reducing environmental impacts.