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From growth to prosperity: Recognising the value of nature

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The article introduces true cost accounting and The Economics of Ecosystems and Biodiversity (TEEB) as approaches that make the wider costs, benefits, dependencies and trade-offs associated with economic activity more visible. In agriculture, this means looking beyond production and market returns/pricing to consider impacts on soil health, water, biodiversity, carbon, farmer livelihoods, resilience and other forms of value. It also highlights the complementary role of the System of Environmental-Economic Accounting – Ecosystem Accounting (SEEA-EA), which provides a statistical framework for measuring ecosystem extent, condition and services, and linking these with economic activity. In the Indian context, the article highlights existing progress on environmental-economic accounting and UNEP's TEEBAgriFood work with MoAFW, MoEFCC, MoSPI, ICAR and other institutions on sustainable agriculture including organic farming and agroforestry. The article emphasises that better integration of these approaches can support evidence-based policy, stronger incentives and development pathways that build lasting prosperity while sustaining the natural systems on which it depends.

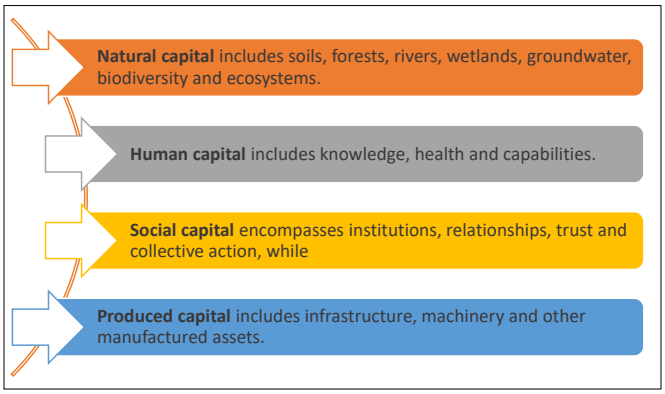
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INDIA'S economic transformation over the past three decades has been extraordinary. Gross Domestic Product (GDP) has expanded, incomes have risen and the country has emerged as one of the world's largest economies. Yet an increasingly important question sits behind these achievements: Are we measuring economic progress in a way that adequately reflects the assets on which future prosperity depends?

The GDP tells us how much economic activity takes place during a given period, but it does not tell us whether that activity is building or depleting the underlying wealth of a country. From a true value perspective, wealth encompasses the natural, human, social and produced capital that together underpin present and future prosperity. A farmer can increase production by extracting groundwater faster than it can recharge. A landscape can generate higher agricultural output while losing soil organic matter, pollinators and tree cover. A forest can be converted into timber and the resulting production recorded as economic output, even as carbon storage, water regulation, biodiversity and other ecosystem services are diminished. In this sense, economic activity can contribute positively to GDP even where it is accompanied by a decline in the natural assets that support long-term prosperity. GDP remains an indispensable measure of economic production, however, the task is to complement it with a broader understanding of whether today's economic activity is maintaining, creating or eroding the assets on which tomorrow's prosperity will depend.

The distinction between income and wealth is intuitive at the household level. A household would not consider itself wealthier simply because its expenditure had increased if that expenditure were financed by continuously selling its assets. Yet at the macroeconomic level, policy discussions often focus overwhelmingly on the equivalent of income, i.e. GDP, while giving comparatively less attention to changes in the asset base that makes future income possible. For countries, that asset base extends far beyond factories, roads and financial capital. Prosperity depends on a portfolio of produced, natural, human and social capital.

The development question, therefore, becomes more demanding than simply asking how quickly an economy is growing. It also requires asking whether that growth is increasing the total wealth available to future generations. This broader understanding of progress is also reflected in the United Nations' evolving work on measures beyond GDP. The UN Secretary-General has called for economic progress to be assessed alongside measures of human well-being, inclusion and environmental sustainability, recognising that GDP



The four-capital approach

alone cannot provide a complete picture of whether development is improving lives and strengthening the foundations of future prosperity.

This is especially relevant for India, where economic development is deeply dependent on natural systems. Agriculture relies on healthy soils, water availability, pollination and climatic stability. Cities depend on watersheds and landscapes that often extend far beyond their administrative boundaries. Rural livelihoods are closely connected to forests, and ecosystem services that may have little or no observable market price. Maintaining these assets is therefore important for sustaining agricultural productivity, managing water efficiently, reducing climate-related risks and strengthening long-term resilience. If these changes remain outside the information used to make economic decisions, policies and investments can appear attractive while shifting significant costs elsewhere to farmers, communities, governments, ecosystems or future generations.

Making the true costs and benefits visible

This is where True Cost Accounting (TCA) becomes particularly important. With regards to the agriculture and food sector, market prices capture only market value associated with food and agriculture. The price of a crop conventionally reflects labour, inputs, transport and other market transactions, but may not fully capture wider impacts associated with the use of soil, water, biodiversity and other natural resources. Equally, markets may not fully recognise benefits generated through improved soil health, efficient water use, biodiversity conservation, carbon storage, landscape resilience and stronger rural livelihoods. Many of these effects are externalities like costs and benefits generated by economic activity that are not fully reflected in the prices. The Economics of Ecosystems and Biodiversity for Agriculture and Food (TEEBAgirFood), a TCA approach, draws attention to the wider impacts and dependencies associated with agriculture and food systems, including those relating to natural resources, ecosystem services, livelihoods and social well-being.

True Cost Accounting seeks to bring these consequences into the decision-making framework. Importantly, this should not be understood simply as an exercise in assigning monetary values to everything in nature. Its deeper purpose is to make material dependencies, impacts, costs and benefits visible so that decision-makers can better understand trade-offs and compare alternative pathways.

True cost accounting and TEEB: Expanding the economics lens through a capitals approach

The TEEB, a global initiative of the United Nations Environment Programme (UNEP), is built around a closely related proposition that the values of nature need to become more visible in economic decision-making. TEEBAgriFood extends this approach to agriculture and food systems by examining relationships across natural, human, social and produced capital and the flows of benefits and costs generated through them.

Consider two agricultural production systems generating the same monetary value of crops. One may involve relatively greater dependence on groundwater and external inputs, while another may achieve comparable returns while strengthening soil health, improving water-use efficiency and enhancing resilience. The immediate market value of production may be similar, but their implications for long-term wealth can be very different. This is the analytical contribution of TEEB. It provides additional evidence for assessing policy choices in terms of production and financial returns as well as their implications for natural, human, social and produced capital.

System of Environmental Economic Accounting (SEEA) – Ecosystem Accounting

For these approaches to influence economic policy at scale, they need to be connected to the underlying statistical architecture used by governments. This is where the System of Environmental-Economic Accounting - Ecosystem Accounting (SEEA-EA) becomes critical. Adopted by the UN Statistical Commission in 2021, SEEA-EA provides an internationally agreed framework for organising information about ecosystems and linking it with economic activity. In 'Our Common Agenda', presented ahead of the 76th session of the UN General Assembly in 2021, the UN Secretary General called for national and global accounting systems to incorporate additional measures of progress and explicitly urged Member States to begin implementing SEEA Ecosystem Accounting. It enables countries to develop spatially explicit accounts of ecosystem extent, condition and the ecosystem services they provide.

Therefore, SEEA-EA can help show where ecosystem extent is changing, whether ecosystem condition is improving or deteriorating, and which ecosystem services are being supplied. TEEB and TCA can then take this information into specific decision contexts on the implications of different agricultural practices; policy option that creates the greatest value across different forms of capital; receiver of the benefits; and bearer of the costs. In this way, the approaches are complementary. Thus, SEEA-EA strengthens the statistical foundation for understanding changes in natural capital, while TCA and TEEB help translate that information into policy, programme and investment decisions.

India's foundations for a wealth-based approach

India already has important foundations on which to build. The Government of India has progressively developed environmental-economic accounting through the Ministry of Statistics and Programme Implementation (MoSPI). India's first official environmental-economic accounts were released in 2018 and included physical asset accounts for forest, land, minerals and water. Subsequent work has expanded towards ecosystem extent, condition, ecosystem services and biodiversity accounts. India has also developed a Strategy for Environmental Economic Accounts 2022–2026, providing a roadmap for improving the quality, coverage and use of environmental accounts.

Work on Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES) has further supported the development of ecosystem accounts covering areas such as carbon retention, crop provisioning, timber and non-timber forest products, nature-based tourism and soil retention, while subnational ecosystem accounting has demonstrated how these approaches can be applied at landscape and state levels. Alongside this statistical progress, India is increasingly connecting natural capital and true value approaches with sectoral policy. Through the TEEBAgriFood initiative, UNEP is working with the Ministry of Agriculture and Farmers Welfare, the Ministry of Environment, Forest and Climate Change, MoSPI, the Indian Council of Agricultural Research (ICAR) and other relevant ministries and technical institutions to provide complementary evidence on how the economic value of nature and the wider costs and benefits of agricultural systems can inform policy and planning.

A major focus of this work has been on organic and sustainable farming systems and other sustainable farming approaches, alongside agroforestry. TEEBAgriFood assessments undertaken in collaboration with ICAR-Indian Institute of Farming Systems Research (IIFSR), Central Agroforestry Research Institute (CAFRI), and the Indian Institute of Forest Management (IIFM), seek to understand not only production and financial performance, but also changes in soil health, water use, biodiversity, carbon storage, input costs, farmer incomes, resilience and rural livelihoods. This is particularly relevant as India considers how to scale sustainable agriculture while strengthening farmer incomes and climate resilience, and as evidence is brought into discussions around sustainable and climate-resilient agriculture, agroforestry, natural farming and emerging incentive mechanisms for ecosystem services.

Agriculture as a test case for true wealth

Agriculture is perhaps where the wealth question becomes most tangible. It sits at the intersection of economic production, natural capital and rural livelihoods. Farming depends on healthy soils, water, biodiversity and functioning ecosystems, while agricultural choices directly influence these same assets over time. A wealth-based perspective, therefore, asks how different agricultural pathways can generate long-term value across natural, human, social and produced capital. TEEBAgriFood and TCA help make these wider impacts visible, supporting decisions that strengthen productivity, resilience, farmer well-being and the natural resource base on which future agriculture depends. This perspective also has important implications for policy design. Alongside regulatory and conservation approaches, a wealth-based perspective can help explore how economic incentives may recognise and encourage the creation and maintenance of natural capital.

Farmers are not only producers of food and agricultural commodities; through the management of agricultural landscapes, they can also be important stewards of soil, water, biodiversity and other natural assets. If farmers generate public benefits through improved soil health, carbon sequestration, groundwater conservation, biodiversity restoration or landscape resilience, there is a strong case for exploring ways in which those benefits can be recognised and rewarded. Approaches being explored globally and nationally include payments for ecosystem services, appropriately designed green credits, results-based agricultural support and nature-positive finance that can help align private incentives with wider public value.

Towards a broader measure of prosperity

This becomes increasingly important as India pursues its ambition to become a developed economy. Achieving that ambition will require enormous investment in infrastructure, agriculture, energy, cities and industry. The quality and durability of that transformation, however, will also depend on whether the country maintains and strengthens the underlying natural, human and social assets on which future prosperity rests. The objective is not to replace GDP with a single alternative measure, but to complement measures of economic production with a richer understanding of changes in wealth, including natural capital and ecosystems. This can provide decision-makers with a more complete picture of whether development today is strengthening the foundations for prosperity tomorrow.

SUMMARY

India is well positioned to take this agenda forward. It already has substantial statistical capacity, sophisticated digital and geospatial infrastructure, growing experience in environmental-economic accounting and extensive agricultural datasets. The opportunity now is to connect these capabilities more systematically with policy and programme design, agricultural incentives, investment appraisal and the broader assessment of development outcomes. Instead of asking only how much India produces today, economic policy can increasingly ask what forms of wealth is being created for tomorrow. The real measure of progress is whether economic growth translates into lasting prosperity – one that strengthens human well-being while sustaining the natural systems on which future development depends.

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