

[India's decelerating GDP growth rate](#) in the past five quarters has generated panic. A drop in GDP growth rate from 7.4% in January-March 2016 to 5.7% in April-June 2017 is equivalent to 2.59 trillion. Most commentators argue that a smaller rate of GDP growth will have a negative impact on the growth of employment, income and livelihood opportunities.

However, there could be a silver lining to a lower growth rate. This is particularly so from the perspective of the sustainability of the economy in the long run; it can bring significant economic welfare through improvements in environmental quality. Economists concerned about sustainable development advocate low levels of economic growth since with large expansions in national income come negative environmental consequences such as pollution. These adversely affect the environmental quality and economic welfare of individuals and households dependent on the environment for their basic livelihood.

Why is India's GDP growth falling?

It appears that it is the Environmental Kuznets Curve (EKC) hypothesis that underlines almost all our development policies, which are directed towards pushing double-digit income growth with little concern for environmental capital. The EKC hypothesis is shown in an inverted U-shaped curve depicting the relationship between per capita income and environmental deterioration. It suggests that during the initial period of economic development, where per capita income is low, deterioration of environmental quality caused by rapid industrialisation and urbanisation is inevitable. Society will have to accept a certain level of environmental damage arising from income-generating activities because large-scale income growth is essential for achieving other development goals such as generation of mass employment and poverty reduction. Once per capita income reaches a higher level, the trade-off between income growth and environmental quality will cease to exist. With increased financial and technological capabilities, we can restore the environmental quality to desired levels. So, income growth on a higher path brings a win-win outcome in the long run where poverty is reduced and environmental quality is improved.

In reality, the EKC is a near myth since an increase in per capita income does not bring desirable levels of improvement to the environment. In fact, empirical evidence across countries reveals that various attempts to increase per capita income causes more environmental deterioration. A large number of poor people are dependent on the environment for their day-to-day activities and therefore more focus on improved environmental quality can push income growth on a sustainable basis.

Studies that have attempted to estimate the economic costs of environmental damages in India have revealed some striking findings. For example, a 2013 [World Bank study](#) highlighted that in India, a higher level of economic growth maintained in the past imposed 3.75 trillion worth of environmental damage cost, which is equivalent to 5.7% of the country's GDP at 2009 prices. Another study by the World Bank and the Institute for Health Metrics and Evaluation at the University of Washington found that India's air pollution alone caused welfare loss equivalent to 7.69% (approximately 31,316.2 billion) of its GDP in 2013.

The cost estimates of damage differ significantly across different studies due to differences in the methodology and data used. Similarly, the values reported by the above studies are underestimates since they do not capture the wide range of economic impacts on the environment due to non-availability of data. For example, the environment generates a range of ecosystem services such as provisioning services (food, irrigation, drinking water), regulating services (climate regulation, water quality regulation), cultural services (recreational and religious services)

and supporting services (nutrient recycling, soil formation). Identifying and quantifying them for the purpose of damage assessment is a difficult task in the absence of relevant data.

In India, millions of households and economic activities utilise these ecosystem services for production and consumption. Though economically highly valuable, ecosystem services are not traded in the markets and, therefore, their true values are not reflected in the system. Therefore, the actual value of economic welfare lost due to loss of ecosystem services will be much higher than what is being currently estimated.

Another issue is that the current method of GDP estimation treats environmental damage costs as income. Since development policies give more priority to income and employment generation, implementation of pollution control policies are very poor. For example, pollution control measures implemented in the bleaching and dyeing units in Tiruppur, Tamil Nadu, for more than 25 years did not achieve any pollution reduction. In fact, the measures led to not only the closure of these units in 2011 but had already caused significant irreversible damage to the health, agriculture and livestock sectors in that region. Regional poverty and inequality in income are caused by such ineffective policies.

Adequate reforms in the area of pollution control with a larger role for market-based instruments such as pollution tax and tradable pollution permits are yet to be carried out in India. At present, the price of a commodity from a polluting unit covers only the private cost of production, not the damage cost. This makes the commodity relatively cheaper leading to more demand and output, and more pollution and environmental damage cost. Increased output and demand increases the value of GDP, but the corresponding environmental damage cost is not adjusted in the GDP estimation. The GDP still contains a significant amount of damage cost; as a result, the GDP is misleading since an 'illfare' is treated as welfare.

Similarly, more environmental damage may lead to an increased level of purchase of market goods contributing to expansion of the GDP. When individuals become sick due to water pollution, the demand for medical services will rise; increase in the purchase of these market goods and services will expand the GDP size. So, more pollution damage leads to higher GDP.

An important lesson from empirical studies on environmental damage is that the size of environmental social costs is significantly higher than the social benefits being brought about by GDP growth. This means, if we try to increase income and employment in traditional sectors, we lose them in other sectors that are dependent on the environment. Sometimes, the economic losses are much higher than the gains of income growth.

Since GDP growth and environmental damage have a strong positive relationship, lower growth in GDP could afford benefits. Though there is an uncertainty in determining environmentally desirable growth rate, maintaining 5-6% growth rate with strict environmental regulation is supposed to reduce environmental damage significantly. A proper assessment of environmental social benefits and social costs of income growth is warranted so that policies can be directed towards setting environmentally sustainable growth rates. Efforts to develop environmental accounting and green GDP for India can help us achieve sustainable development in future.

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The new U.S. Fed Chairman is unlikely to opt for policies that might upset the President's plan

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