Syllabus subtopic: Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

Prelims and Mains focus: about India’s aim of becoming a $5 trillion economy; TFP and how it impacts the economy

News: The slowdown has revived interest in India’s growth rate as it aspires to become a $5 trillion economy. This would require growing at 8% in real terms, along with a 0.7% rise in total factor productivity (TFP).

What are the factors for economic growth?

- Economic growth is a function of the quantity of inputs such as labour and capital employed for productive purposes, along with factor productivity. It is intuitive that if more people are employed, more goods and services would be produced. Over time, due to a rise in population, labour employed increases and due to accumulation, capital also increases in an economy.

- A rise in productivity enables an economy to grow faster with the same set of labour and capital being employed. It is important to recognize the factors responsible for growth to address the current slowdown.

What is total factor productivity?

- Total factor productivity (TFP) is derived as a ratio of the total production and weighted average of inputs such as labour and capital. The measure gives us the growth in real output, which is in addition to the growth in inputs such as labour or capital employed for productive purposes. So TFP gives us the relationship between the quantity of factors employed and the output in an economy.
A higher TFP implies higher growth with the same set of labour and capital employed. TFP as a concept was first discussed by Nikolaas Tinbergen (1942) and George Stigler (1947); Robert Solow (1957) developed the framework further.

How has India’s TFP growth evolved over the years?

As per the Total Economy Database (TED), India’s adjusted GDP growth in 2005 was 9%, while TFP growth was 3.5%; in 2006, growth was 9.3% and TFP growth 3.3%; in 2007, the figures were 10.1% and 3.1%, respectively. Evidently, growth came with a substantial improvement in TFP. In 2016 India’s TFP growth was 3.5%, in 2017 it was 1.6% and in 2018 it was 2.4%.

What is the global trend on TFP growth?

Since 2008, TFP growth has been slower for most nations; for China it has been negative since 2012. TED and Federal Reserve Economic Data on TFP and GDP growth show most economies with 8% or higher growth had TFP growth above 3%. These countries also saw a substantial rise in private capital formation in that period. Recent evidence indicates TFP might impact GDP growth more than fixed capital. Better TFP does seem to have a positive impact on growth of an economy, whether emerging or developed.

What are the factors affecting TFP?

India can improve its TFP by undertaking bold market and structural reforms that will unshackle its productive capacity, stuck in the primary sector of the economy. Such reforms can cause reallocation of land and labour from primary to other sectors of the economy, thus enhancing productivity. Investments in physical infrastructure such as highways, dedicated freight corridors, and human capital will also increase TFP.