Investments in infrastructure – transport, irrigation, energy and information and communication technology – are crucial to achieving sustainable development and empowering communities in many countries. It has long been recognized that growth in productivity and incomes, and improvements in health and education outcomes require investment in infrastructure

Manufacturing is an important driver of economic development and employment. At the current time, however, manufacturing value added per capita is only US$100 in the least developed countries compared to over US$4,500 in Europe and Northern America. Another important factor to consider is the emission of Carbon Dioxide during manufacturing processes. Emissions have decreased over the past decade in many countries but the pace of decline has not been even around the world.

Technological progress is the foundation of efforts to achieve environmental objectives, such as increased resource and energy-efficiency. Without technology and innovation, industrialization will not happen, and without industrialization, development will not happen. There needs to be more investments in high-tech products that dominate the manufacturing productions to increase efficiency and a focus on mobile cellular services that increase connections between people.

Basic infrastructure like roads, information and communication technologies, sanitation, electrical power and water remains scarce in many developing countries

16% of the global population does not have access to mobile broadband networks.

For many African countries, particularly the lower-income countries, the existent constraints regarding infrastructure affect firm productivity by around 40 per cent.

The global share of manufacturing value added in GDP increased from 15.2% in 2005 to 16.3% in 2017, driven by the fast growth of manufacturing in Asia.

Industrialization’s job multiplication effect has a positive impact on society. Every job in manufacturing creates 2.2 jobs in other sectors.

Small and medium-sized enterprises that engage in industrial processing and manufacturing are the most critical for the early stages of industrialization and are typically the largest job creators. They make up over 90 per cent of business worldwide and account for between 50-60 per cent of employment.

Least developed countries have immense potential for industrialization in food and beverages (agro-industry), and textiles and garments, with good prospects for sustained employment generation and higher productivity

Middle-income countries can benefit from entering the basic and fabricated metals industries, which offer a range of products facing rapidly growing international demand

In developing countries, barely 30 per cent of agricultural production undergoes industrial processing. In high-income countries, 98 per cent is processed. This suggests that there are great opportunities for developing countries in agribusiness.

Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all

Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry’s share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries

Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets

By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending

Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States 18

Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities

Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020

Aspects of the prevailing global economic environment have not been conducive to rapid progress on Sustainable Development Goal 9. While financing for economic infrastructure has increased in developing countries and impressive progress has been made in mobile connectivity, countries that are lagging behind, such as least developed countries, face serious challenges in doubling the manufacturing industry’s share of GDP by 2030, and investment in scientific research and innovation remains below the global average.

Efficient transportation services are key drivers of economic development, and more than 80 per cent of world merchandise trade by volume is transported by sea, making maritime transport a critical enabler of trade and globalization. International maritime freight increased by an estimated 3.7 per cent globally in 2017 and projected growth will test the capacity of existing maritime transport infrastructure to support increased freight volumes.

In 2018, global manufacturing slowed in both developing and developed regions. The slowdown was attributed mainly to emerging trade and tariff barriers that constrained investment and future growth. Despite this slowdown, the global share of GDP in terms of manufacturing value added increased marginally from 15.9 per cent in 2008 to 16.5 per cent in 2015, but stalled at the same level in 2018. The share of manufacturing in least developed countries remained low, posing a serious challenge to the target of doubling the industry’s share of GDP by 2030.

Meanwhile, the share of manufacturing employment in total employment declined from 15.3 per cent in 2000 to 14.7 per cent in 2015 and to 14.2 per cent in 2018, as countries gradually reallocated production factors from agriculture and low-value added manufacturing towards high-value added manufacturing and services.

The intensity of global carbon dioxide (CO2) emissions from manufacturing industries declined by more than 20 per cent between 2000 and 2016, to 0.30 kg CO2 per United States dollar, showing a general decoupling of CO2 emissions and GDP growth.

The proportion of global GDP invested in research and development increased from 1.52 per cent to 1.68 per cent from 2000 to 2016, with Europe and Northern America standing at 2.21 per cent of GDP spent on research and development and most developing regions falling short of the world average in 2016.

While there has been an increase in the number of researchers per million inhabitants from 804 in 2000 to 1,163 in 2016, that number reached only 91 in sub-Saharan Africa.

Total official flows for economic infrastructure in developing countries reached $59 billion in 2017, an increase of 32.5 per cent in real terms since 2010. Within this total, the main sectors assisted were transport ($21.6 billion) and banking and financial services ($13.4 billion).

In 2016, medium-high and high-tech sectors accounted for 44.7 per cent of the global manufacturing value added. Medium-high and high-tech products continued to dominate manufacturing production in Northern America and Europe, reaching 47.4 per cent in 2016 compared with 10.4 per cent in least developed countries.

Almost all people around the world now live within range of a mobile-cellular network signal, with 90 per cent living within range of a 3G-quality or higher network. This evolution of the mobile network, however, is growing more rapidly than the percentage of the population using the Internet.