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Eradication of poverty and other development issues

Industrial development cooperation

Note by the Secretary-General

The Secretary-General hereby transmits the report of the Director General of the United Nations Industrial Development Organization, submitted in accordance with General Assembly resolution [73/247](#).

* [A/75/50](#).



Report of the Director General of the United Nations Industrial Development Organization

I. Industrial development in review

A. Introduction

1. In the previous two reports on industrial development cooperation ([A/73/121](#) and [A/71/264](#)), emphasis was laid on the importance of industrial development cooperation for poverty eradication, shared prosperity and combating climate change and other environmental damage. The statistical review contained in those reports presented clear evidence of the positive impact of manufacturing on poverty eradication, employment and inclusiveness.

2. With 10 years left until the target year of 2030, the global community has entered into a decade of action to accelerate progress towards “the world we want”. Poverty is far from eradicated, inequalities are growing and climate change is causing destruction. The coronavirus disease (COVID-19) pandemic has caused major disruptions across the globe and is threatening to set back the development progress made over decades. At the same time, the crisis may offer opportunities to build a better future.

3. Two years since the previous report, it is clear that the proper functioning of the economy and industry is essential to all nations and societies. As the global community and policymakers focus on recovering and rebuilding better and stronger, the role of the economy for development is experiencing a renaissance. Support for inclusive and sustainable industrial development, as explicitly recognized in Goal 9 of the Sustainable Development Goals, is stronger than before.

4. In its resolution [73/247](#), the General Assembly recognized the unique mandate and important contribution of the United Nations Industrial Development Organization (UNIDO). In the Abu Dhabi Declaration (see GC.18/INF/4, resolution GC.18/Res.1), adopted in 2019, Heads of State and Government, ministers and representatives reaffirmed their commitment to UNIDO as the central coordinator of industrial development in the United Nations system, welcoming its crucial role in accelerating the achievement of Goal 9 and all other industry-related Goals set out in the 2030 Agenda for Sustainable Development.

B. Recent trends in industrial development

5. Since the turn of the century, growth in manufacturing has been a major source of poverty reduction in many countries through employment creation and income generation. Following a sharp drop in 2009 owing to the global financial and economic crises, global manufacturing growth recovered and remained relatively stable from 2013 onward, at around 3.5 per cent per year, and peaked at 4.0 per cent in 2017.

6. In the previous report ([A/73/121](#)), the renewed manufacturing growth in the industrialized economies was noted, and emphasis was laid on challenges to global industrialization, including the adverse effects of changes in established trade arrangements, bilateral tariffs and tensions between leading economies.

7. Even though world manufacturing value added reached an all-time high of \$13,838 billion (at 2015 constant prices) in 2019, global manufacturing growth decelerated from 4.0 per cent in 2017 to 2.6 per cent in 2019.

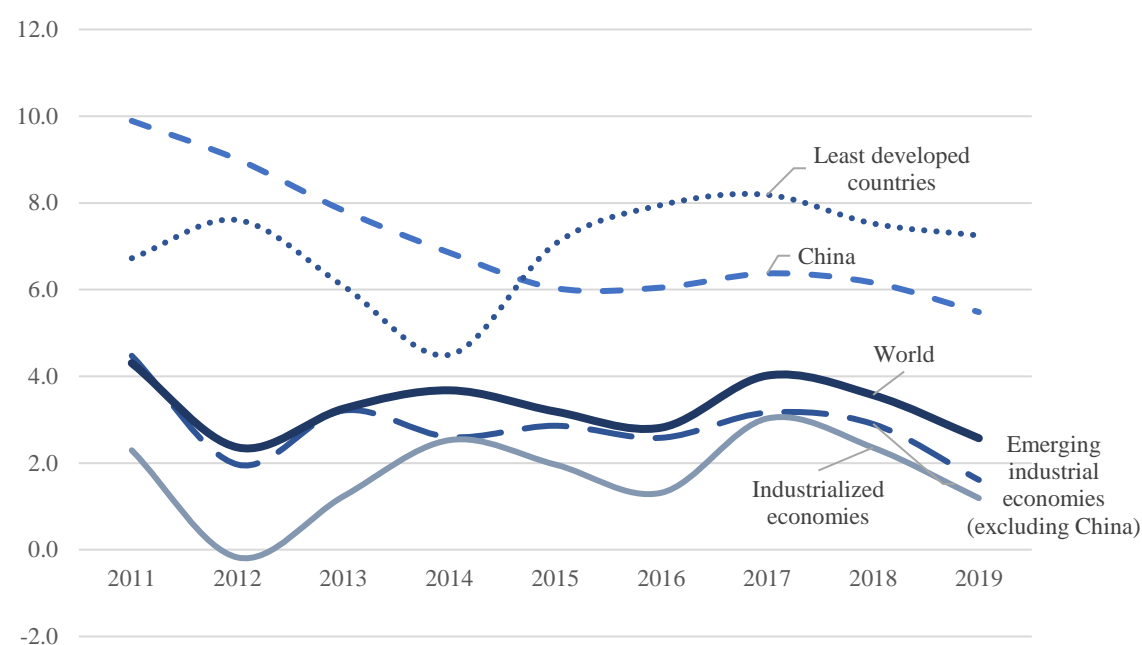
8. While trade tensions had a direct impact on industrialized countries, developing and emerging industrial economies were also affected. A deceleration in manufacturing production was observed in all regions and country groups and posed challenges in terms of an overall economic slowdown and a reduction in jobs and living standards.

9. Manufacturing growth in industrialized countries decelerated to 1.2 per cent in 2019, but continued to grow fairly swiftly, by 4.2 per cent, in developing and emerging industrial economies. In particular China and the group of least developed countries continued to keep higher annual growth rates of manufacturing value added, while experiencing a decline compared with previous years (see figure I).

Figure I

Annual growth of manufacturing value added, by country group, 2011–2019

(Percentage at 2015 constant United States dollars)

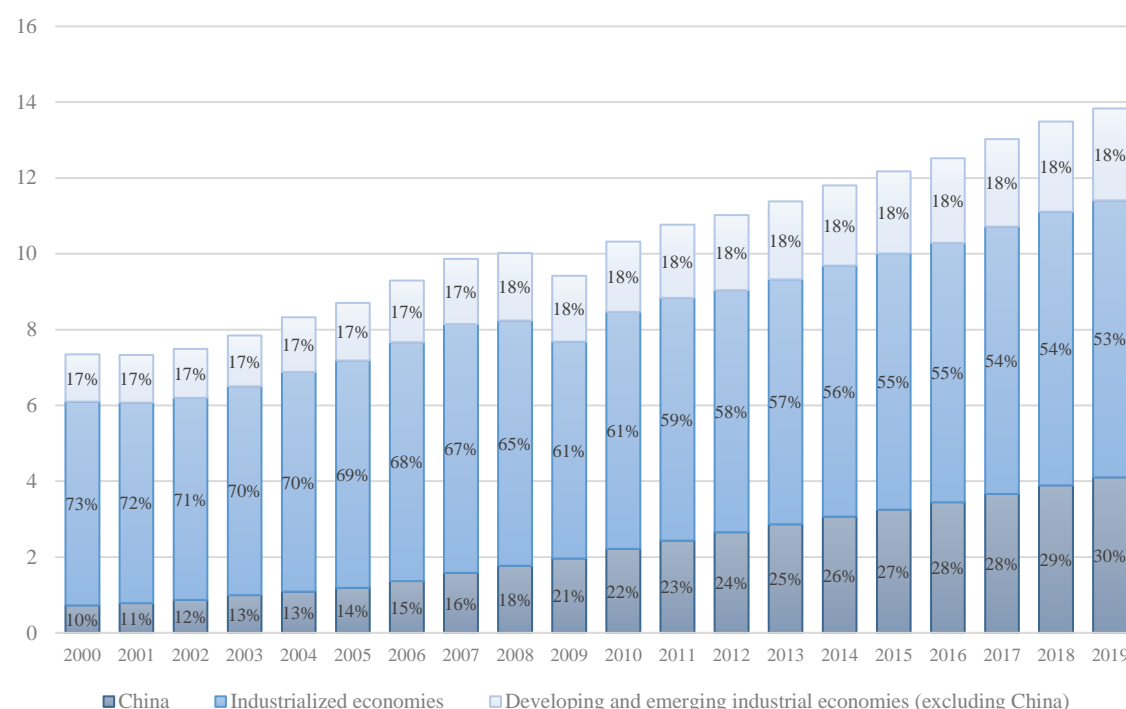


Source: UNIDO statistical database.

10. The swift growth of industrial production in developing and emerging industrial economies has contributed to a significant increase of their global share. The proportion of those economies, including China, increased from 26.8 per cent in 2000 to 47.2 per cent in 2019. China, as the largest manufacturer in the world, covers almost one third of global manufacturing production. Although the industrialized economies continue to dominate global manufacturing, their share shrunk from 73.2 per cent in 2000 to 52.8 per cent in 2019 (see figure II).

Figure II
Distribution of manufacturing value added, by country group, 2000–2019

(Thousand billions of 2015 constant United States dollars)

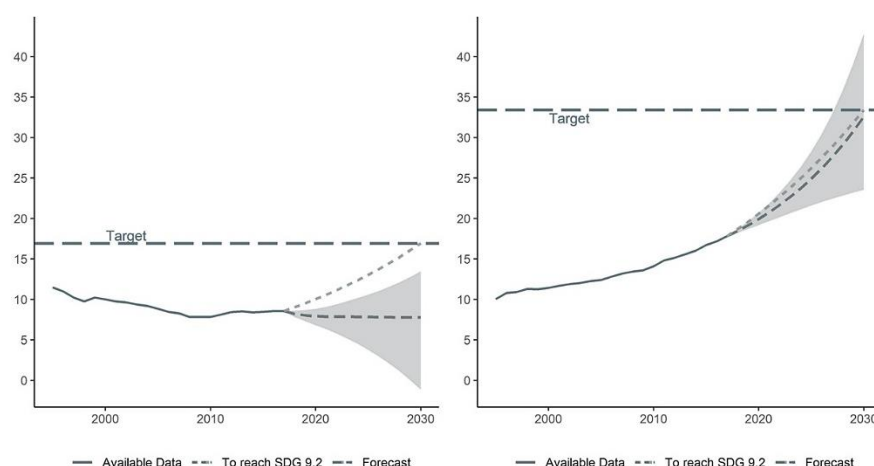


Source: UNIDO statistical database.

11. Disparities in manufacturing productivity are observed between the least developed countries, with manufacturing value added per capita of \$132, and the industrialized economies, with \$5,469 in 2019. Home to more than 13 per cent of the global population, the least developed countries produce less than 1 per cent of global manufacturing value added. Although the share of manufacturing in the group of least developed countries rose from 10 per cent in 2010 to 12.4 per cent in 2019, performances vary significantly within the group.

12. Target 9.2 of the Sustainable Development Goals is aimed at doubling the share of industry in gross domestic product (GDP) in least developed countries. Together with an expected global decline in manufacturing production, least developed countries will face severe industrialization challenges, jeopardizing the achievement of target 9.2 by 2030. While African least developed countries show stagnation in terms of manufacturing, Asian economies reveal very positive prospects towards reaching target 9.2 by 2030 and thus clearly drive the growth of the entire group (see figure III).

Figure III
Prospects of the African and Asian least developed countries in terms of achieving target 9.2 of the Sustainable Development Goals by 2030
 (Share of manufacturing value added in GDP, percentage at 2015 constant United States dollars)



African least developed countries

Asian least developed countries

Source: UNIDO.

13. Small-scale industrial enterprises are the major sources of employment in developing and emerging economies and are therefore fundamental to providing income and to poverty eradication efforts.

14. While the number of manufacturing jobs continued to grow since 2010 and accounted for more than 460 million workers worldwide in 2019, the share of manufacturing in total employment decreased from 15 per cent in 2000 to 14 per cent in 2019. The majority of global manufacturing employment is concentrated in developing and emerging industrial economies, accounting for around 80 per cent of global manufacturing jobs in 2019, more than half of which are registered in China.

15. Women accounted for 39 per cent of global manufacturing employment in 2019. The majority of female manufacturing jobs were located in China (44.1 per cent), followed by the emerging industrial economies (26.5 per cent), in 2019. The participation of women in manufacturing employment is closely associated with the expansion of a few specific, generally low-technology, sectors, such as food and beverages, textiles and wearing apparel.

16. A declining share of manufacturing employment, together with a rise in manufacturing production, suggests an increase in manufacturing labour productivity related to the rapid absorption of new technologies. Industrialized economies are already highly productive and are the swiftest to adopt the technology that they produce, pushing the technological frontier even further and setting themselves far apart from the rest of the world.

17. The developing and emerging industrial economies, with varying degrees of technological progress, continue to use low wages as an advantageous entry point for their integration into global markets. The adoption of technologies may take time, and productivity typically grows slightly slower than in industrialized economies.

18. In terms of products, industrialized economies continue to dominate the production of medium-high-technology and high-technology products worldwide, even while their global share decreased from 66.6 per cent in 2010 to 56.6 per cent in

2018. The share of the developing and emerging industrial economies, excluding China, dropped by 1.4 per cent, from 13 per cent in 2010 to 11.6 per cent in 2018. It is evident that China increased its global share of medium-high-technology and high-technology products from 20.5 per cent in 2010 to 31.8 per cent in 2018 at the expense of the industrialized countries and the rest of the developing and emerging industrial economies.

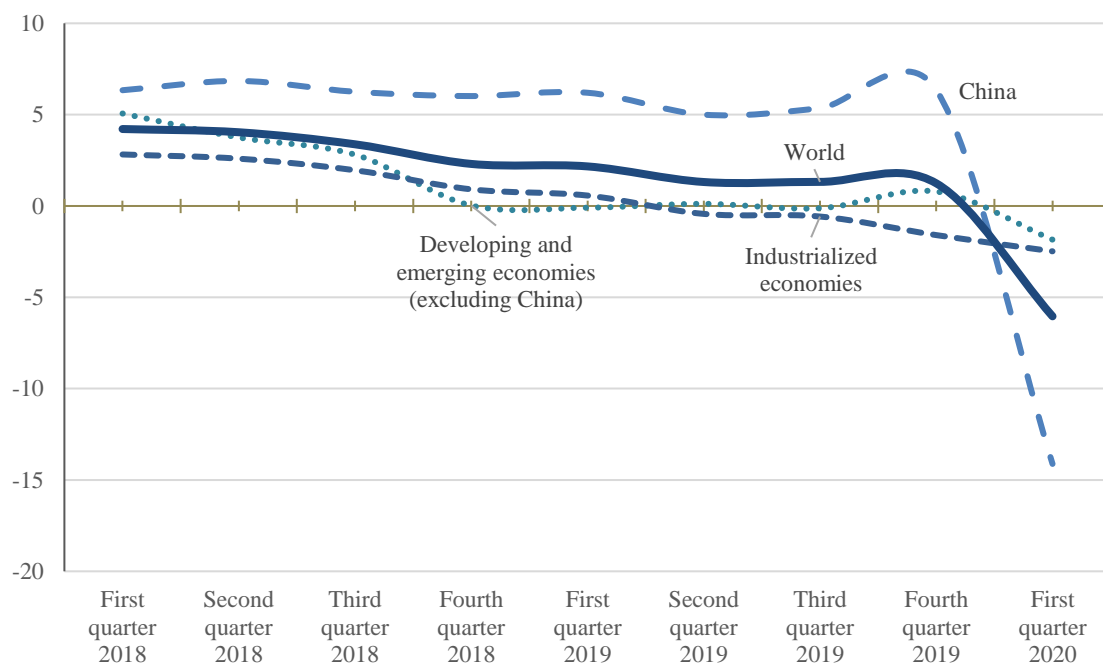
19. Looking to trade, world exports of merchandise have experienced a recovery in recent years, following a decline between 2014 and 2016. Exports of manufactured goods grew by almost 9 per cent in 2018, accounting for almost 70 per cent of global merchandise exports. All country groups reported growth in manufactured exports between 2016 and 2018. A slowdown of global merchandise trade was observed in the second half of 2018 and during most of 2019, but was followed by signs of recovery in late 2019 and early 2020 until the global economy was hit by the COVID-19 pandemic.

20. Global manufacturing growth, which was already decelerating in 2019 owing to tariff and trade tensions among leading economies, is expected to further decline owing to the economic disruptions triggered by the pandemic (see figure IV). A massive decline in manufacturing output is expected in forthcoming periods in industrialized economies and in most developing countries, as most of those countries interrupted their economic activities from March 2020 onward. The pandemic is troubling manufacturing industries and causing disruptions to global value chains and the supply of products.

Figure IV

Quarterly growth of manufacturing output, by country group, 2018–2020

(As a percentage compared with the same period of the preceding year)



Source: UNIDO statistical database.

C. Impact of the pandemic on industrial development

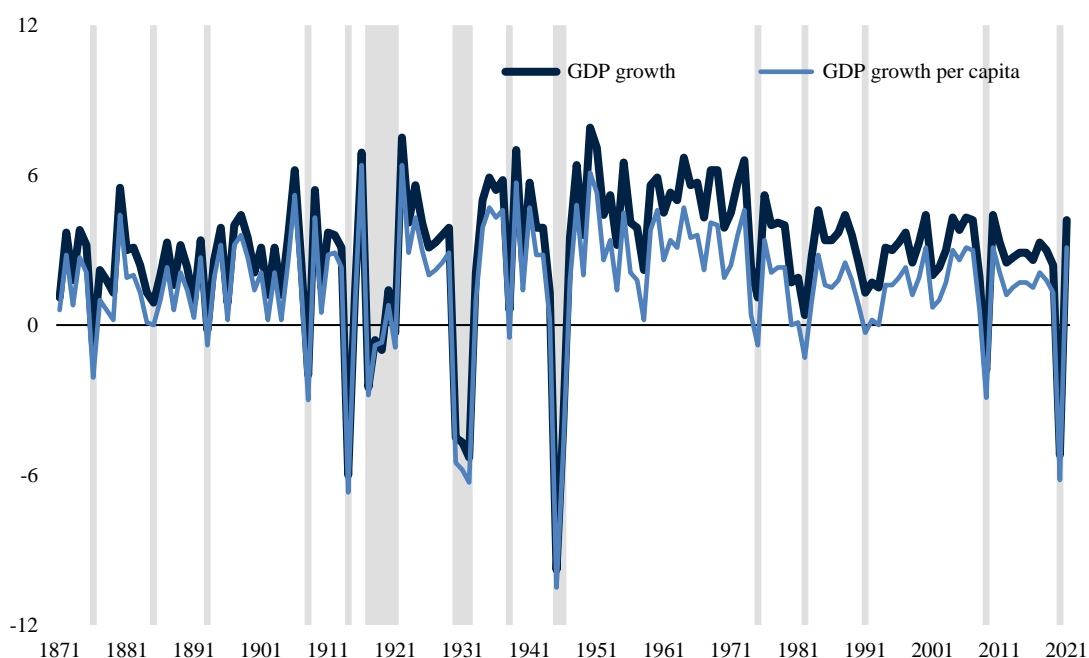
21. The COVID-19 crisis began as and remains primarily a health emergency, with widespread loss of life and severe human suffering that continue to grow. To contain the spread of the virus, Governments imposed far-reaching containment measures, which turned the pandemic into the worst economic crisis in decades, resulting in contractions in output, spending, employment and overall economic growth. It is the largest global recession solely caused by a pandemic and with a high degree of synchronization across the globe.

22. The economic outlook is exceptionally uncertain, with the forecasts in June 2020 expecting the world economy to shrink by 5.2 per cent in 2020, representing the deepest recession since the Second World War (see figure V).¹ In the scenario of a second wave of infections, with renewed lockdowns before the end of the year, global GDP is projected to decline by 7.6 per cent in 2020.² In all cases, the implications for real economies are severe, at both the macroeconomic and microeconomic levels.

Figure V

Global GDP growth and GDP growth per capita, 1871–2021

(Annual percentage change for up to 183 economies)



Source: World Bank, *Global Economic Prospects, June 2020* (Washington, D.C., 2020), figure 1.1.1.B.

Note: Data for 2020 and 2021 are forecasts. Shaded areas refer to global recessions.

23. The manufacturing industry experiences shocks on both the demand and supply sides. A combination of shop closures, unemployment and lower income, together with other uncertainties on the consumer side, resulted in lower spending and a drop in demand for goods, proxied by the considerable decline in commercial activity, energy consumption and transport use, real estate-related commercial activity and

¹ World Bank, *Global Economic Prospects, June 2020* (Washington, D.C., 2020).

² Organization for Economic Cooperation and Development, *OECD Economic Outlook*, vol. 2020, issue 1, No. 107 (Paris, OECD Publishing, 2020).

other indicators of consumer behaviour. Even in countries in which containment measures were less stringent, the sharp fall in external demand affected the economy. On the supply side, with factories either closed or operating well below capacity, output dropped.

24. Production is further hampered by the lack of intermediate supplies, in particular where lean inventory management previously relied on just-in-time delivery of intermediate inputs. Data for the first quarter of 2020 suggest that the COVID-19 pandemic has reduced global trade in goods by 5 per cent, pointing to a 27 per cent drop for the second quarter and an annual decline of 20 per cent for 2020.³ This is in line with the World Trade Organization estimate of a decline in international trade of between 13 and 32 per cent in 2020.

25. Reduced manufacturing output is reflected in declining trade, while trade disruptions to suppliers affect cross-border production networks and global value chains, compounding the effects of the collapse in demand.

26. Under normal circumstances, manufacturing firms would be making profits that would be distributed to households and Governments in the form of incomes and taxes. Household incomes are now expected to decline owing to sharp losses from lost earnings, diminished employment opportunities, illness and reduced remittance receipts.

27. Large revenue losses affect even those companies that were otherwise financially stable, operationally competitive and profitable. Companies with assets that are not sufficiently liquid to cover current expenses may run into a liquidity shortfall. Those that turn illiquid during the confinement may face difficulties in gaining access to new financing owing to a lack of collateral. Businesses with debt before the crisis may be even more vulnerable to reductions in cash flow, leading to potential chain reactions of unpaid creditors and workers.

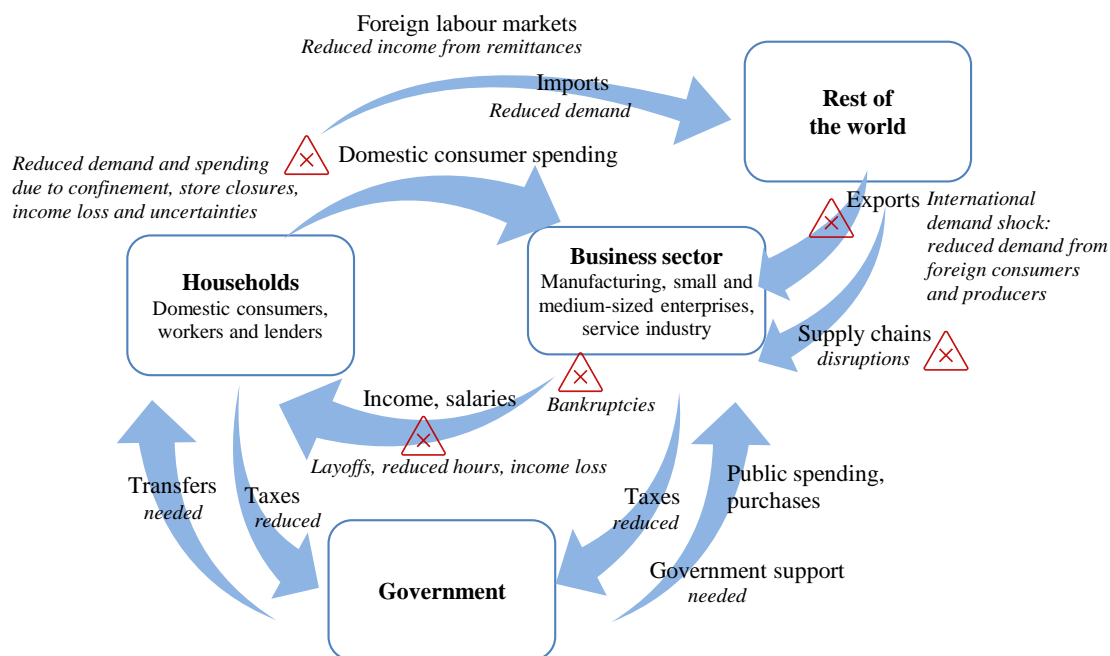
28. Global foreign direct investment is also affected by unprecedented outflows of capital from emerging economies. The United Nations Conference on Trade and Development warns that foreign direct investment could experience a downward pressure of between -30 and -40 per cent in 2020 and 2021.⁴

29. Figure VI displays in a simplified manner how the current crisis creates disruptions in several parts of the economic ecosystem of employees, firms, producers, consumers and Governments.

³ United Nations Conference on Trade and Development (UNCTAD), “Global trade update: June 2020” (Geneva, 2020).

⁴ UNCTAD, “Impact of the COVID-19 pandemic on global FDI and GVCs: updated analysis”, *Investment Trends Monitor*, No. 35 (Geneva, March 2020).

Figure VI
Multiple strikes of COVID-19 in the circular flow of income



Source: Own illustration.

30. The COVID-19 crisis is directly affecting the majority of the world's workforce of 3.3 billion people. Unemployment rates are skyrocketing to unprecedented levels, threatening the entire ecosystem of livelihoods. The collapse of firms in the manufacturing sector, with often more extensive linkages in value chains than other sectors, could multiply the negative impact on people. That would create disruptions on both the consumer and supplier sides, which in turn could undermine the smooth functioning of the industrial system as a whole, leading to more bankruptcies and closures and higher unemployment, with significant negative implications for vulnerable groups.

31. Unemployment effects are felt disproportionately across industries, with the highest impact on wholesale and retail trade, with 482 million potentially affected workers, and the manufacturing industries, with 463 million, where low-skilled and low-paid workers, often women, are particularly affected. Other highly affected areas are accommodation and services, with 144 million workers, and the real estate and business/administrative sector, with 157 million.⁵ Depending on the country context, those workers face a drastic reduction in working hours, wage cuts and layoffs. The resilience of sectors and firms to pandemics, and physical distancing through alternative working modalities, such as telecommuting arrangements, may also play a role.

32. Micro, small and medium-sized enterprises, self-employed persons, daily wage earners, part-time workers and those insufficiently covered by formal working arrangements will be hit particularly hard by the crisis. Worldwide, around 2 billion people work informally, most of them in emerging economies and developing countries. Lacking the social protection coverage that formal employment usually

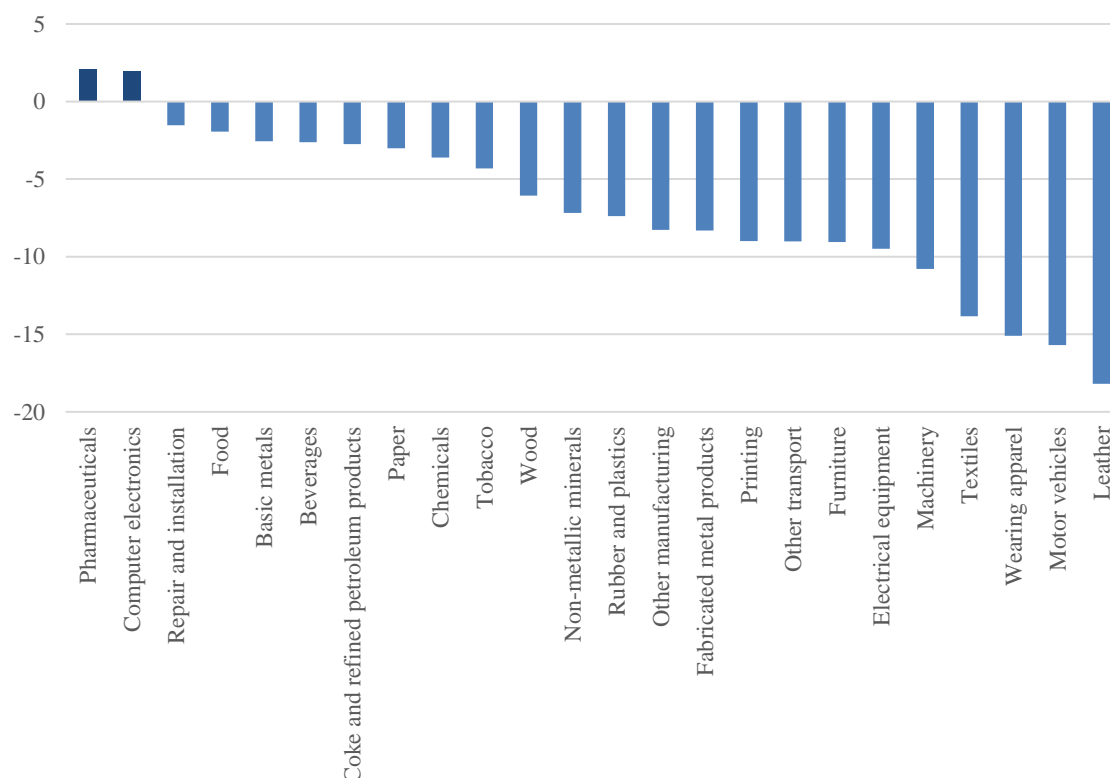
⁵ International Labour Organization (ILO), "ILO Monitor: COVID-19 and the world of work", 2nd ed. (Geneva, 7 April 2020).

provides, including access to health care or income replacement in case of sickness or job loss, the crisis may widen already existing inequalities.

Figure VII

Estimated growth rates in the first quarter of 2020, by industry

(Percentage change of output by manufacturing industry, comparing first quarters of 2020 and 2019)



Source: UNIDO statistical database.

33. A sectoral-level comparison between the first quarters of 2020 and 2019 (figure VII), incorporating the wide heterogeneity across countries, shows that the overwhelming majority of manufacturing industries registered a downturn. Pharmaceuticals and medicinal chemicals, together with computer, electronic and optical products, emerge as winners, with positive growth during the crisis. The sectors experiencing the most drastic decline are typical global value chain industries, including leather, motor vehicles, wearing apparel and textiles.

34. The downturn effect of COVID-19 on manufacturing (relevant to Goal 9) will contribute to a significant rollback of the progress made towards eradicating poverty (Goal 1). A 10 per cent decrease in the average share of manufacturing added in GDP is associated with a 2 per cent rise in poverty.⁶ Global extreme poverty is expected to rise for the first time since 1990, with the potential increase in people living under the poverty line of \$1.90 per day estimated to be between 80 million and 420 million (for a contraction in per capita incomes of 5 or 20 per cent).⁷

⁶ See www.unido.org/news/covid-19-poverty-and-why-rescuing-industry-good-strategy.

⁷ Andy Sumner, Chris Hoy and Eduardo Ortiz-Juarez, "Estimates of the impact of COVID-19 on global poverty", WIDER Working Paper, No. 2020/43 (Helsinki, United Nations University World Institute for Development Economics Research, April 2020).

35. The pandemic and its consequences are hitting the poor and the vulnerable the hardest, including through increased risks of infection and mortality, job or income losses, food supply disruptions, school closures and less capacity to manage negative income shocks. Least developed countries experience a particularly heavy humanitarian and economic toll, in the light of their specific vulnerabilities and large outbreaks of the pandemic, in addition to higher poverty, poorer sanitation, less access to medical treatment and lower availability of essential goods owing to market disruptions. The remittances that would usually be an important source of income have also dropped sharply, as the downturn in host countries affects migrant workers.

36. Current food stocks are solid and global food production prospects are positive, but disruptions to agrifood supply chains, shortages of chemicals, fertilizers and seeds and the threat of smaller harvests owing to adverse weather conditions or pest or disease outbreaks, such as locusts or African swine fever, could aggravate food insecurity in shock-prone countries in sub-Saharan Africa or small island developing States.⁸

37. The situation will be accompanied by rising gender inequality and exacerbate the feminization of poverty, vulnerability to violence and women's unequal participation in the labour force. Women working in the informal economy are overrepresented in the sectors hardest hit by the crisis (42 per cent, compared with 32 per cent of men). The situation is particularly acute in lower-income and upper-middle-income countries, where 56 per cent of women work in high-risk sectors, compared with 39 per cent of men.⁹

38. Young people are also disproportionately affected owing to disruption to education, including technical and vocational education and on-the-job training. Although over two thirds of training worldwide is now provided in a distance-learning format, few of the least developed countries have made the transition to online training. Disruption to education will reduce potential employment opportunities and earnings in the future. Collapses of businesses and layoffs owing to the crisis, and the global pre-crisis youth unemployment rate of 13.6 per cent, may worsen the situation.¹⁰

D. Conclusions

39. As the global COVID-19 emergency unfolded, the reliance of humanity on manufactured products became evident, what with the shortage of critical supplies, such as personal protective equipment, surgical and face masks, gowns, sanitizers and disinfectants, medical ventilators, laboratory equipment and viral testing kits for the health-care sector and the wider population. Firms across manufacturing sectors responded to the call from policymakers to speed up and scale up production, while some temporarily repurposed their production in order to increase global production capacity. Manufacturing has earned its place as a mainstay of the COVID-19 response and of recovery strategies for post-COVID-19 economies.

40. During the crisis, even the most market-oriented countries have been drawn to implement more dirigiste policies to limit harm and weather the economic downturn. Governments applied and are applying a broad mix of labour-market policies, corporate support schemes, eased monetary policy and relaxed fiscal and financial

⁸ Food and Agriculture Organization of the United Nations, *Food Outlook: Biannual Report on Global Food Markets – June 2020* (Rome, 2020).

⁹ ILO, "ILO Monitor: COVID-19 and the world of work", 3rd ed. (Geneva, 29 April 2020).

¹⁰ ILO, "ILO Monitor: COVID-19 and the world of work", 4th ed. (Geneva, 27 May 2020).

policies to protect the incomes of workers and businesses and to prevent an even larger economic and financial collapse.

41. While macroeconomic measures are expected to have an impact on the manufacturing industry, the combination with policy responses limiting the impact on manufacturing was found in three distinct areas:

(a) Safeguarding the continued operation of manufacturing (financial and fiscal support, ensuring input supply and designation of critical sectors);

(b) Mobilizing manufacturing towards critical supplies (repurposing, industrial consortiums, adjusted regulations, export controls and import facilitation and government involvement in production and distribution);

(c) Supporting post-crisis manufacturing growth (guidance for business resumption, support for swift recovery and future growth, initiatives for increased productivity, skills development and capital investment).¹¹

42. Socioeconomic aspects of the COVID-19 crisis have been described above. At the time of writing, uncertainties exist not only about the spread of the virus and new waves of infections, but also about the severe impact of the crisis on industries and economies around the world.

43. As economies begin to reopen and countries loosen containment measures, open borders and lift restrictions on travel, a progressive recovery in many aspects can be expected. Importantly, unemployment is generally projected to moderate gradually, although it will remain substantially above the pre-outbreak level. Reopening industries at lower levels of capacity, changing consumer preferences and behaviour and implementing lessons learned may imply structural changes. An outlook to building a better future after COVID-19 is given in section II.B below.

II. Industrial development and the 2030 Agenda for Sustainable Development

A. Inclusive and sustainable industrial development and the Sustainable Development Goals

44. Since the adoption of the 2030 Agenda, UNIDO member States have reported annually through the President of the Industrial Development Board to the high-level political forum on sustainable development on the contribution of UNIDO to the fulfilment of the 2030 Agenda and the industry-related Sustainable Development Goals and targets.

45. The 2018 submission to the high-level political forum was focused on the contribution of inclusive and sustainable industrialization to the achievement of Goal 7, among other Goals. It was highlighted that rapid industrialization had lifted hundreds of millions of people out of poverty in the past decades by providing them with jobs and income, but that progress had been uneven, with many remaining stuck in a poverty trap, particularly in areas in which industrialization levels had remained low or had stagnated. This shows how industrial development is key to poverty reduction efforts and ensuring that no one is left behind.

¹¹ Policy Links, “Covid-19: international manufacturing policy responses – a preliminary review of international approaches to supporting the manufacturing supply chains and workforce” (Cambridge, United Kingdom of Great Britain and Northern Ireland, IfM Education and Consultancy Services, University of Cambridge, 2020).

46. The achievement of inclusive and sustainable industrialization (Goal 9) enables sustained economic growth and the creation of decent jobs (Goal 8). It helps to reduce poverty (Goal 1), hunger (Goal 2) and inequalities (Goals 5 and 10), while improving health and well-being (Goal 3), increasing resource and energy efficiency (Goals 6, 7, 11 and 12) and reducing greenhouse gas and other polluting emissions, including from chemicals (Goals 13 to 15).

47. In the input to the 2019 high-level political forum, it was concluded that industry was a key generator of viable solutions to global development challenges, but their adaptation, scale-up and deployment needed to be accelerated. A transformation of industrial systems will be required, as industry still needs to cut greenhouse gas emissions by 65 to 90 per cent by 2050 compared with the 2010 baseline. Emission reductions can be achieved through energy, emissions and material efficiency and reduced product demand.

48. Adequate and predictable finance from a range of public and private sources is crucial for realizing the global transition. Governments could derisk investments to enable wider dissemination and use of clean and innovative technologies that in turn create education opportunities and reduce unemployment. Facilitation of the flow of international finance, through Governments to subnational authorities and non-State actors, is needed to fund green investments.

49. Emerging digital solutions for the energy-water-food nexus enable new business models in the industrial sector while helping to increase resilience to the adverse effects of climate change. Digital technologies help to enhance resource-efficient production and heighten environmental standards in manufacturing. However, such technologies also risk leaving people, especially women and those without adequate skills, behind. Concerted efforts are therefore required to ensure a just and equitable transition of the affected workforce.

50. Policy frameworks should be enhanced towards inclusive and sustainable industrial development to bend the global greenhouse gas emissions curve, increase industry's resilience to the adverse impacts of climate change and ensure the social and economic inclusion of all. Governments need to pursue policy coherence with regard to industry, education, labour and investment to enable the creation of green jobs and empower the workforce with the skills required to take on these jobs.

51. High-level political commitment on the part of Governments in terms of institutional, systemic and individual capacity-building should be sustained to realize sustainable industrial practices in a socially inclusive manner.

52. UNIDO, as the entity of the United Nations mandated to promote inclusive and sustainable industrial development, has extensive knowledge and technical experience in the above-mentioned areas. UNIDO realizes its mandate by designing and implementing industrial policies, enhancing local productive capacities and entrepreneurship, contributing to job creation, advancing economic competitiveness and enabling market access, advancing the diffusion of environmentally sound technologies and practices in production systems and partnering with the private and public sectors to mobilize investments in an inclusive, sustainable and resilient manner.

B. Building a better future after the pandemic through inclusive and sustainable industrial development

53. Since 2000, there have been a number of disease outbreaks, including severe acute respiratory syndrome, influenza A (H1N1), Middle East respiratory syndrome, Ebola virus disease and Zika, affecting over 115 countries. In comparison, climate

disasters, such as floods, droughts, storms and wildfires, occur more often. The ongoing nature of rising temperatures and climate change should serve as a reminder that, as the world addresses the consequences of COVID-19, it cannot be complacent in the face of other major crises ahead.

54. The COVID-19 pandemic is a strong wake-up call for the international community to be better prepared and to build a more resilient, inclusive and sustainable future. The calls for international cooperation and multilateralism are strong.

55. Major disruptions can create new opportunities and accelerate transformations in a positive manner, inducing structural change and the development of or investment in new areas. The obliteration of non-viable businesses may lead to new opportunities, including in green growth and more equitable, inclusive and environmentally sustainable investments. Once the immediate health crisis subsides, Governments will also need to prioritize reforms based on the lessons learned.

56. Amid the devastation of the pandemic, its effect on air pollution and greenhouse gas emissions emerged as a positive aspect. Cleaner air was observable around the globe, visible also in satellite images. Daily global carbon dioxide emissions had fallen by 17 per cent by early April 2020 compared with the mean 2019 levels. Emissions from surface transport, power and industry accounted for 86 per cent of the total reduction in global emissions. Carbon dioxide emissions declined by 60 per cent in the aviation sector, the largest decrease of any sector.¹²

57. The decline in global energy demand by 3.8 per cent in the first quarter of 2020 relative to the same period in 2019 implied reduced demand for coal, oil and gas, as well as a fall in the corresponding carbon dioxide emissions.¹³ Global carbon dioxide emissions are expected to decline by 8 per cent in 2020, to their lowest level since 2010.

58. That, however, does not guarantee a sustained decline, particularly as emissions increased rapidly soon after previous economic downturns. Achieving a robust economic recovery without the rebound in emissions that followed the financial crisis in 2008 will require Governments to take the lead in pursuing systematic reductions in emissions through smart, sustained and ambitious policies to accelerate the development and deployment of a full range of clean energy solutions. The sharp drop in energy prices and demand, for example, may make it much easier for Governments to phase out fossil fuel subsidies.

59. For policymakers, building back better does not have to be a choice between economic recovery and sustainability. The economic stimulus packages, totalling over \$9 trillion to date, primarily designed to revive economies, could be allocated to sustainable energy investments, promoting economic revitalization, creating new skilled jobs and putting clean infrastructure and circular economy models in place at the same time.

60. Transforming energy systems based on renewables is expected to boost global GDP by \$98 trillion by 2050, delivering a 2.4 per cent higher GDP growth and 42 million more jobs globally.¹⁴ The deployment of renewable energy and energy efficiency investments is labour intensive and will thus also benefit the labour market.

¹² Corinne Le Quéré and others, “Temporary reduction in daily global CO₂ emissions during the COVID-19 forced confinement”, *Nature Climate Change*, vol. 10 (July 2020).

¹³ International Energy Agency, *Global Energy Review 2020* (Paris, 2020).

¹⁴ International Renewable Energy Agency, *Global Renewables Outlook: Energy Transformation 2050* (Abu Dhabi, April 2020).

61. A business-as-usual recovery based on the systems of the past would be an enormous missed opportunity. The prioritization of sustainability, incentives for low-carbon growth and resource-efficient manufacturing offer the private sector competitive solutions to reduce power bills, rapidly generate new jobs and raise productivity, while also curbing carbon emissions and saving money.

62. While globalization has helped to lift millions out of poverty, and the interconnectedness of economies is a source of resilience, it can also have the opposite effect. Foreign value added in production exceeded 50 per cent in most economies prior to the crisis, with strong backward linkages in manufacturing. Closed borders, travel bans and other restrictions during the crisis demonstrated the vulnerability of domestic production to the sourcing of inputs from distant locations.

63. The disruption of global value chains during the crisis has intensified calls in industrialized countries for a substantive nationalization or regionalization of supply chains. The costs of shortened value chains and diminishing international trade could, however, be high, as the benefits of efficiency gains, economies of scale, specializations and increased productivity would be lost.

64. For developing and emerging economies, this will reduce opportunities to benefit from trade-associated capital flows and access to international markets, human capital, technologies, innovation and knowledge. Hence, the opportunity of developing countries to industrialize by linking into global value chains may be significantly reduced if no steps are taken to balance reshoring and anti-globalization tendencies. This adds to other uncertainties about international trade, trade disputes and the erosion of rules-based dispute settlement mechanisms.

65. To cope with the possibility of shortened global value chains, developing countries need to nurture local manufacturing capacities. Demand-enhancing policies, including through cash transfers, public procurement, promotion of specific industries and improved access to markets, will help to address market failures and promote economic growth, industrial development and innovation, while fostering a middle class. This may also serve as a possible precondition for developing countries to re-enter global value chains.

66. Where manufacturing is embedded in local and regional networks, economies have been able to respond faster and adapt better to the new realities created by the pandemic, particularly those regions with businesses that have been able to transfer skills to the production of different goods. Developing countries should therefore enhance “industrial commons”, meaning the knowledge and resources (research and development, know-how, manufacturing infrastructure, process-development and engineering skills) that result from and are nurtured by the clustering and constant interaction between research and manufacturers within an industrial sector with rapidly developing innovation.

67. Product diversification and a balanced industry mix are also beneficial for enhanced resilience. During the COVID-19 crisis, manufacturers were able to adapt better when they had developed industrial commons with a combination of manufacturing capacity, access to raw materials and importantly to knowledge, as well as quality assurance and standardization capabilities.

68. History has shown that coordination, cooperation and the mobilization of scientific and technological progress, combined with strong manufacturing capabilities, are critical for addressing complex challenges. Four aspects are particularly relevant in this regard, namely:

(a) Science, technology and innovation contribute to addressing health challenges;

(b) Science, technology and innovation underpin the development of new products, new industries and jobs;

(c) Dynamic science, technology and innovation systems entail strong and effective collaboration and coordination between actors in the system;

(d) A well-performing science, technology and innovation system requires active public-policy support.

69. As innovation features as one of the key drivers of economic growth, it is expected that science, technology and innovation policies should also contribute to fostering economic recovery in the medium to long term by enabling economic restructuring, productive diversification and entry to or repositioning in a potentially changed landscape of global value chains.

70. The COVID-19 crisis has given a strong push for innovation and digital transformation. Indeed, the world has experienced a greater digital transformation in the past few months than at any time in the past decade. Information and communications technologies have made it possible for many to sustain their operations during lockdown, and the use of telecommuting, videoconferences, webinars and online training has surged. The experience with this short-term solution is expected to have a long-lasting effect, revolutionizing the world of work in many areas.

71. Similarly, the crisis has also highlighted the benefits of the advanced technologies of the fourth industrial revolution. From the perspective of lead firms, new technologies, such as automation, artificial intelligence, robotics and three-dimensional printing, have the potential to reduce reliance on low-skilled, low-cost labour in manufacturing. This would have not only an impact on the labour market, already under strain owing to COVID-19, but also implications for the geography of production, as value chains can be expected to become more regional, moving closer to the final consumer markets.

72. However, the crisis has also shown that not everyone is ready to embrace a more digitized existence, highlighting the importance of addressing the current digital divide, including the lack of access to modern technologies and the Internet, but also skills gaps. The additional strain placed on developing countries by the current crisis may have further depressed their capacity to innovate and to promote the uptake of advanced technologies, widening the gap with high-income countries even further. Similarly, women and other vulnerable groups could be disproportionately affected, with limited access to digital skills and tools and higher risk of job losses.

73. To prepare the workforce for new technologies, enhanced education and training programmes will be required, which also need to be better integrated with the requirements of labour markets. Given the uncertainties about the long-term consequences of COVID-19 for the reallocation of resources, it will be important to preserve jobs that are viable in the medium term, while providing workers with opportunities to move to industries with better long-term prospects. Social protection and social insurance must also be improved, especially for workers in non-standard work arrangements and the informal sector.

74. Responsibilities are also becoming clearer. Since the financial crisis of 2008, a gradual rebalancing of the relationship between the free market and the State has been observed. The COVID-19 situation highlights the importance of the capacity of the State to respond to crises and protect people and the inability of the free market to serve the common good. It has led to calls for stronger labour-market protection, the strengthening of domestic supply chains and universal health insurance. A larger role

for Governments in steering recovery efforts and in responding to inequality and economic¹⁵ insecurity is likely.

75. The crisis has also highlighted that international cooperation and coordination are essential to tackle challenges that know no borders. In the face of a pandemic, information-sharing, joint measures and multilateral efforts are essential to ensure the efficient production of affordable essential medicines, which need to be made swiftly and widely available. Information-sharing and best practice are also important to support risk assessments and sound national policy responses on the health and the economic sides.

76. As the world emerges from one crisis, it will be critical to prepare before the next strikes. International cooperation and multilateral dialogue will be key to addressing the critical health emergency and other known fragilities, as well as to building a better future. The United Nations and its specialized organizations, such as UNIDO, play a critical role in building international partnerships and mechanisms for an inclusive and sustainable future.

III. Response of the United Nations Industrial Development Organization

A. Introduction

77. In the Lima Declaration of 2013 (see GC.15/INF/4, resolution GC.15/Res.1), the General Conference renewed the mandate of UNIDO, defined inclusive and sustainable industrial development and reaffirmed the unique role of UNIDO as the central coordinator in the United Nations system of international industrial development cooperation. It also laid the foundation for Sustainable Development Goal 9.

78. In 2019, in the Abu Dhabi Declaration, that mandate was re-emphasized and guidance provided for the way forward into a decade of action. The role of UNIDO as a platform for private sector cooperation, in the fourth industrial revolution, and as lead agency of the Third Industrial Development Decade for Africa (2016–2025) (resolution [70/293](#)) was accentuated.

79. With only 10 years left to achieve the 2030 Agenda, industrial development cooperation is benefiting from the renewed momentum and strong support of member States. This is important, as the world has to respond to persisting poverty, growing inequalities, a global pandemic that has given rise to an economic crisis and increased unemployment, a changing climate and environmental degradation, as well as the advent of a new technological revolution.

80. The multiple crises require a united response. The role of the United Nations is indisputable, and so too is the need for specialized agencies such as UNIDO to support member States in their efforts. Neither Governments nor the private sector can solve the wide-ranging challenges of today alone.

81. UNIDO acts as the platform for industrial development cooperation within the United Nations system and works closely with its partners. Fully committed to strengthening the United Nations development system, UNIDO supports the reform initiated through General Assembly resolution [72/279](#) as a far-reaching transformation for more cohesive and coordinated inter-agency collaboration.

¹⁵ Dani Rodrik, “Making the best of a post-pandemic world”, Project Syndicate (12 May 2020).

82. UNIDO advocates a balanced implementation of the three dimensions of sustainable development and welcomes the reinvigorated resident coordinator system, which enhances the outreach and representation of the entire United Nations system, including the specialized agencies, leading also to stronger cooperation among entities.

83. Working partnerships are established with most organizations of the United Nations system, including the Food and Agriculture Organization of the United Nations, the International Fund for Agricultural Development, ILO, the International Telecommunication Union, the International Trade Centre, UNCTAD, the United Nations Development Programme, the United Nations Environment Programme, the United Nations Educational, Scientific and Cultural Organization, the United Nations Human Settlements Programme (UN-Habitat), the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women), the World Health Organization, the World Tourism Organization, the World Intellectual Property Organization, the World Trade Organization and the institutions of the World Bank Group.

84. Moreover, UNIDO broadened its engagement with international and regional development banks, regional economic and political organizations and a wide range of private sector partners.

85. In the implementation of its mandate, UNIDO follows the strategic priorities and programmatic objectives defined in the medium-term programme framework for the period 2018–2021. The stated strategic objective is to scale up the results of UNIDO interventions and to better integrate the four core functions: technical cooperation; analytical and research functions and policy advice; normative functions, including standards and quality-related activities; and convening and partnerships for knowledge and technology transfer, networking and industrial cooperation.

86. Given its long-standing mandate to maintain worldwide industrial statistics and its unique role within the international statistics system, UNIDO serves as custodian agency for six industry-related indicators under Goal 9. In that role, it provides data for the global database of Goal indicators and contributes, inter alia, to the annual *Sustainable Development Goals Report*.

87. The sections below provide a selective and short but balanced overview of the programmatic focus of UNIDO on the fulfilment of the 2030 Agenda. More detailed information can be found in the annual reports (see IDB.48/2 for 2019 and IDB.47/2 for 2018).

B. Creating shared prosperity

88. In recent decades, the world has made substantial advances in the *Global Sustainable Development Report* areas of human well-being and capabilities, but poverty remains the greatest global challenge and the gains of economic progress have not been evenly spread. The current economic crisis following the COVID-19 pandemic is exacerbating the situation.

89. To support developing countries, in particular the least developed countries, UNIDO employs its long-standing expertise in improving agro-industrial value chains and technological upgrading, agro-enterprise development and agribusiness investment, and the promotion of food safety and the reduction of post-harvest losses. Through those efforts, UNIDO contributes to improving *Global Sustainable Development Report* entry points, such as food systems and nutrition.

90. UNIDO supports light manufacturing to help to raise both productivity and incomes sustainably, in particular through its support for small and medium-sized enterprises.

91. The integration of women and girls into higher-skilled and better-paying productive activities remains a priority. A range of job creation and entrepreneurship initiatives gives them new opportunities and lays the groundwork for a sustainable dynamic private sector.

92. To improve sustainable agribusiness value chains and support job creation on a large scale, UNIDO helps to set up integrated agro-industrial parks covering food and food systems, leather and footwear, textile and garments, wood and woodworking, agromechanization and creative industries.

93. The post-crisis and human security programmes of UNIDO are focused on activities that foster economic recovery, rehabilitate damaged agricultural or industrial infrastructure, restore the productivity of small and medium-sized enterprises, raise skills for greater employability and create employment opportunities, thus contributing to the stabilization of communities.

C. Advancing economic competitiveness

94. Contributing to the improvement of the *Global Sustainable Development Report* areas of human well-being and capabilities and helping member States to benefit from rapid technological change and the globalization of production and trade, UNIDO assists developing countries and their business sectors in creating decent jobs, gaining better access to global markets, attracting investment and adopting new and innovative technologies.

95. To that end, UNIDO promotes the establishment of a favourable business environment, the development and competitiveness of small and medium-sized enterprises and clusters, entrepreneurship and industrial upgrading.

96. UNIDO supports the development of markets and product quality, ensuring compliance with international standards and market requirements and pursuing partnerships for knowledge and technology transfer, impact investment, networking and industrial cooperation.

97. Stakeholder engagement is emphasized at all stages: the formulation of modern industrial policies and regulatory frameworks; investment and technology promotion; advice on sustainable business and high-quality infrastructure; technological learning and innovation; and providing conformity assessment services.

98. The UNIDO network of investment and technology promotion offices provides services to those seeking international industrial alliances and acts as a platform for public and private stakeholders to establish collaborative links between developed and developing countries.

99. UNIDO programmes and tools are also used for promoting sectoral and firm-level industrial upgrading, such as in the automotive, textile and apparel, agrifood processing, leather, cement and pharmaceutical sectors. Their results also contribute to the *Global Sustainable Development Report* entry points food systems and nutrition patterns, sustainable and just economies, and urban and peri-urban development.

100. The digitalization of industry, including through the frontier technologies of the fourth industrial revolution, has been at the forefront of the industrial transition in recent years, simultaneously promising immense potential for increasing value added, productivity and efficiency but also posing challenges to social inclusion and for accessibility in developing countries.

101. UNIDO, which addresses the matter through its research and analysis, the convening function and technical cooperation, is calling for immediate action from the international community to support developing countries, especially the least developed countries, in adopting advanced digital production technologies.¹⁶

D. Safeguarding the environment

102. The COVID-19 crisis is a stark reminder that humanity needs to be prepared for other crises ahead or to take urgent steps to avert them. The climate is changing faster than ever before, meaning that it is crucial to know what lies ahead.

103. The need to decouple economic growth from environmental degradation and human health is thus unquestionable. While industry is one of the largest sources of greenhouse gas emissions, it is also a leading provider of technological solutions and inclusive and green jobs.

104. UNIDO is at the forefront of efforts to build a more resilient, greener and circular economy, thus contributing to the *Global Sustainable Development Report* entry points sustainable and just economies, energy decarbonization with universal access, global environmental commons, and urban and peri-urban development.

105. UNIDO assists Governments, institutions and industry to best adapt their production methods, move towards cleaner production systems and circular economies and develop sustainable and efficient energy solutions. The programmes are focused on promoting clean and renewable energies, smart cities and low-carbon transport, fostering energy and resource efficiency and cleaner production and developing resource stewardship programmes.

106. UNIDO technical cooperation applies and promotes the circular economy model. Establishing eco-industrial parks and converting existing industrial zones into such parks are illustrative of its approach to promoting a circular economy.

107. Resource-efficient and cleaner production has long been an important element in the work of UNIDO, as increases in efficiency in terms of processes, products and services improve resource productivity and reduce the risks to communities and the environment. As a circular business model for the management of chemicals in industry, UNIDO pioneered chemical leasing.

108. UNIDO also facilitates the sustainability of the water supply to industries, particularly in water-scarce areas, where multi-stakeholder approaches combine water savings and better water retention.

109. With expertise built up over decades, UNIDO also plays a pivotal role in helping Governments to meet the requirements of international agreements.

110. Under the Montreal Protocol on Substances that Deplete the Ozone Layer, UNIDO contributed to the phase-out of over one third of ozone-depleting substances from the developing world.

111. UNIDO helps signatories to the Stockholm Convention on Persistent Organic Pollutants to create national implementation plans to limit or eliminate highly toxic pollutants, optimizing production processes, particularly those related to recycled raw materials, and establishing new facilities and recycling and waste management programmes.

¹⁶ See, for example, UNIDO, *Industrial Development Report 2020: Industrializing in the Digital Age* (Vienna, 2019).

112. In 2019, 49 million tons of carbon dioxide equivalent and over 90,000 tons of pollutants were reduced with UNIDO support.

113. UNIDO also assists countries in the implementation of the Minamata Convention on Mercury, initially focusing on artisanal and small-scale gold mining and now reducing mercury use and emissions in several industrial sectors, including the waste incineration and cement industries.

114. In support of renewable energy, UNIDO promotes the establishment of mini-grids based on viable and proven technologies, such as small hydropower, biomass and solar energy for local development and productive activities in rural areas.

115. To promote industrial energy efficiency, UNIDO focuses on policy and standards, capacity-building, awareness-raising and demonstrating new technologies. The UNIDO low-carbon, low-emission clean energy technologies programme provides a comprehensive technology transfer and localization mechanism.

116. UNIDO helps to accelerate the uptake of innovative climate and clean energy technologies by supporting small and medium-sized enterprises and start-ups with clean technology innovations to refine their products and business plans and linking them to potential financing and investment channels.

117. The Climate Technology Centre and Network provides technology solutions, capacity-building and advice on policy, legal and regulatory frameworks.

118. UNIDO supports the operation of the Global Network of Regional Sustainable Energy Centres, an innovative South-South and triangular multi-stakeholder partnership to accelerate the energy and climate transformation in developing countries.

E. Strengthening knowledge and institutions

119. With the commitment to “leave no one behind” at the heart of the 2030 Agenda, inclusive and sustainable industrial development must benefit all countries and all peoples and offer equal opportunities and an equitable distribution of the benefits of industrialization. In support of that objective, knowledge is a strategic asset for UNIDO and is one of its major contributions to its development partners.

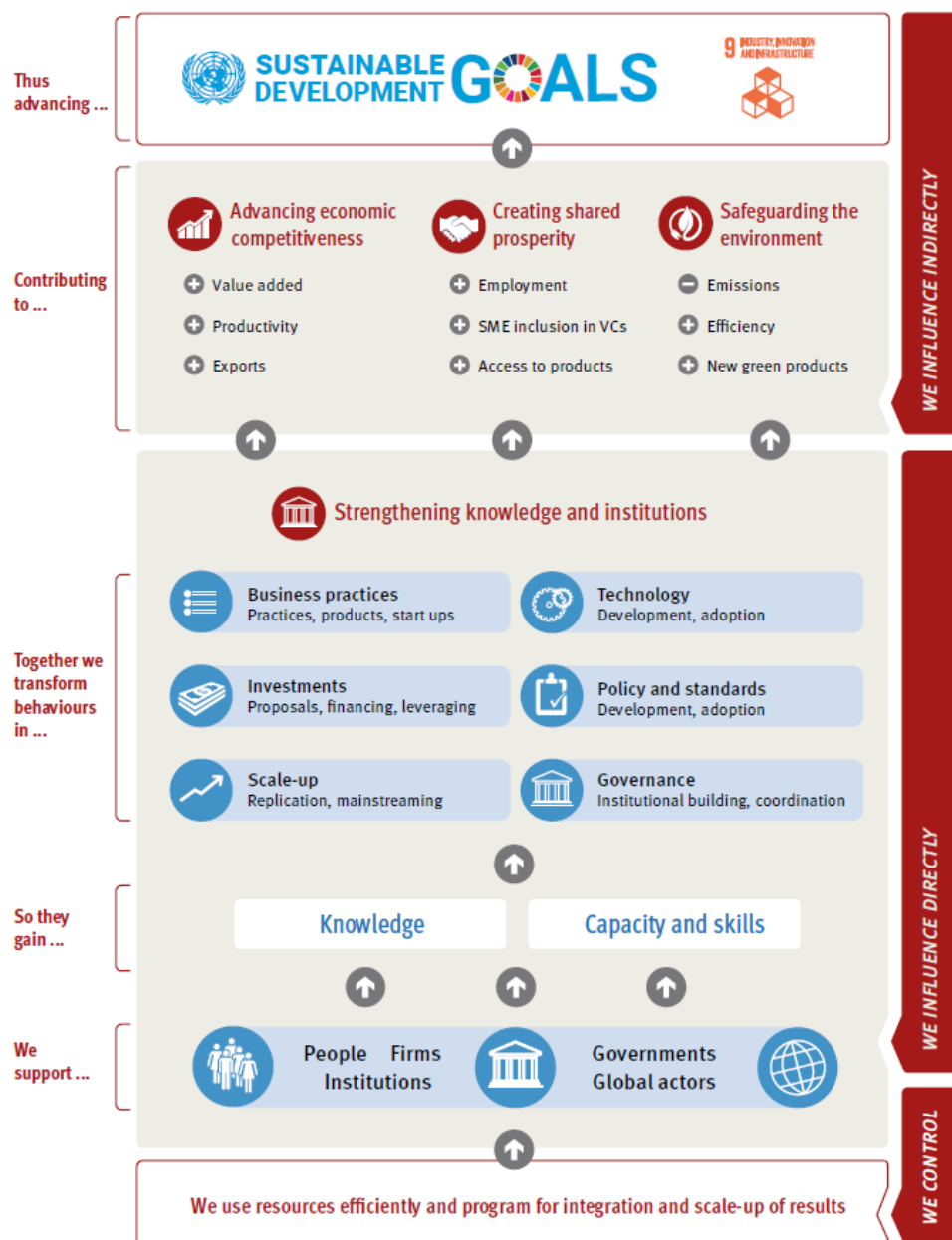
120. For UNIDO, strengthening knowledge and institutions means:

- (a) Advancing the technical, policy and normative knowledge base for inclusive and sustainable industrial development;
- (b) Building analytical, statistical and reporting capacities;
- (c) Facilitating policy dialogue;
- (d) Strengthening sector-specific technical and analytical work for country programmes and the Programme for Country Partnership;
- (e) Strengthening the institutional capacities of member States, integrating all services delivered by UNIDO.

121. Capacity-building is at the core of UNIDO interventions. As UNIDO progresses into the third year of implementing the management priority of integration and scale-up, close engagement with stakeholders helps to trigger the expansion, replication, adaptation and sustainability of results beyond the directly assisted groups.

122. The increased knowledge and institutional capacities of stakeholders contribute to changes in behaviour and practice. Figure VIII shows the areas in which such changes can take place, including in business practice, technologies and policies.

Figure VIII
Strengthening knowledge and institutions in the UNIDO results framework



Source: UNIDO, *Annual Report 2019* (Vienna, 2020), p. 73.

123. Strengthening knowledge and institutions will remain a strategic priority for UNIDO in supporting member States to expand, replicate, adopt and sustain development results, particularly as the world builds a better future drawing lessons from the COVID-19 crisis.

F. Partnership approaches

124. UNIDO continues to implement its Programme for Country Partnership as a high-impact solution to make inclusive and sustainable industrial development a reality in Africa and beyond.

125. The Programme was first introduced in 2014. The pilot phase comprised Cambodia, Ethiopia, Kyrgyzstan, Morocco, Peru and Senegal. In 2019, UNIDO initiated the formulation of new programmes for Côte d'Ivoire, Egypt, Rwanda and Zambia, where priority areas are being formulated under the leadership of the Governments and in consultation with development partners. Implementation and programming have advanced in the six pilot countries. For example, major progress in partnerships and resource mobilization was made around the four integrated agro-industrial parks in Ethiopia and the establishment of three agro-poles in Senegal is also progressing.

126. Going forward, and building on the lessons learned, the Programme will be gradually expanded to additional countries.

G. Pandemic response

127. As outlined above, industry is an important part of the response to the immediate health crisis, through the provision of critical supplies, and of later building a better future, as elaborated in section II.B above.

128. With its COVID-19 response framework, UNIDO aims to help to contain the effects of the crisis, respond and adapt to the emergency and ultimately recover from the socioeconomic shock, taking the opportunity to transform economies into inclusive, resilient and sustainable economies. On the basis of individual country needs and as part of the system-wide response, UNIDO provides the following three integrated service packages:

(a) Measures under “prepare and contain” include protecting the productive sector and its workers, diversifying manufacturing capacity and adapting infrastructure to ensure access to critical supplies;

(b) Under “respond and adapt”, UNIDO advises on repurposing capacities for greater resilience, the protection of firms and people in the immediate and medium terms, finance recovery efforts, sector prioritization and policies to facilitate investments;

(c) Helping to “recover and transform” inclusively and sustainably, UNIDO advises on smart solutions for the industry, energy and transport sectors with the aim of providing a holistic transition into resilient and low-carbon economies through circular industrialization pathways.

IV. Conclusions and recommendations

129. **Just as the world enters the decade of action and delivery for sustainable development, the development progress of past decades is at risk. While uncertainties about the further spread of the virus remain, it is clear that the COVID-19 pandemic and economic shutdowns have already caused suffering and major disruption for billions of people.**

130. **Several lessons can be drawn from the crisis. One is that the challenges of today know no borders and affect everyone everywhere. The clear consequence is that the response must be coordinated and global.**

131. **Multilateralism and international cooperation, including its institutions such as the United Nations, which have been gradually weakened over time, are now needed more urgently than ever and must be given sufficient authority and resources.**

132. **A second lesson is that the foundations of prosperity are precarious and that there is a need to prepare for other crises long talked about but long ignored. The impact of climate change will be severe, global and long-lasting.**

133. **As the international community and policymakers limit the harm and recover, it is clear that inclusive and sustainable industrial development is a powerful response to the COVID-19 and climate change crises. The current crisis is a unique opportunity for change and to build a better, more resilient, inclusive and sustainable future.**
