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POLICY PULSE

A MONTHLY NEWSLETTER



In This Volume



Economic Snapshot



Regulations Watch: Notifications of the WTO



WTO Updates



Free Trade Agreements/
Bilateral Discussions



Policy – Regulatory Brief



Opinion Column

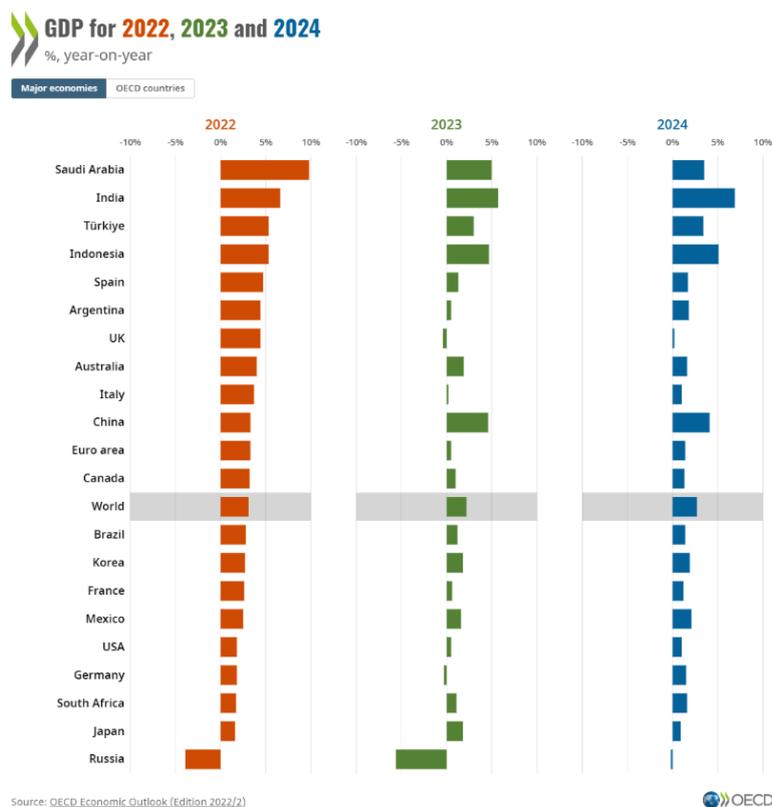
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ECONOMIC SNAPSHOT

GLOBAL ECONOMY

As per OECD, the global economy is facing significant challenges. Growth has lost momentum, high inflation has broadened out across countries and products, and is proving persistent. Risks are skewed to the downside. Energy supply shortages could push prices higher. Interest rates increases, necessary to curb inflation, heighten financial vulnerabilities. Russia's war in Ukraine is increasing the risks of debt distress in low-income countries and food insecurity.



Russia's war of aggression against Ukraine has provoked a massive energy price shock not seen since the 1970s. The increase in energy prices is taking a heavy toll on the world economy, which will worsen if European gas storage runs short. This could force rationing in Europe, hurt countries worldwide as global gas prices are pushed higher. Growth would be lower and prices higher in Europe and worldwide.

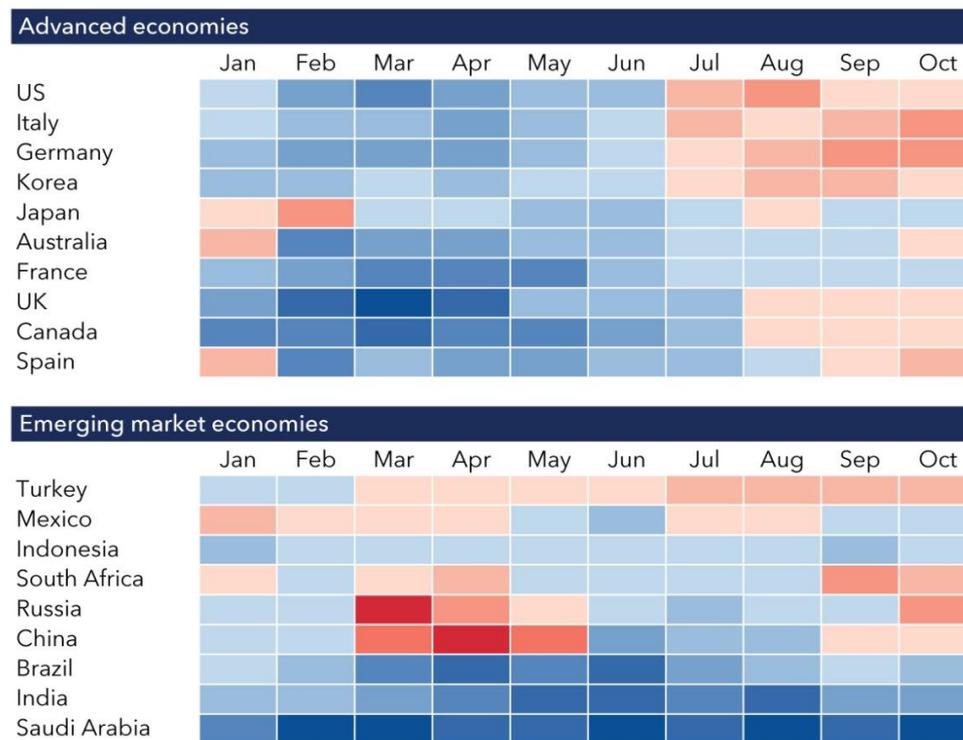
Tighter monetary policy and higher real interest rates, persistently high energy prices, weak real household income growth and declining confidence are all expected to sap growth. The United States and Europe are slowing sharply and the major Asian emerging-market economies are expected to account for close to three-quarters of global GDP growth in 2023.

Inflationary pressures have intensified, largely due to the war in Ukraine, which has pushed up energy and food commodity prices. The higher price of energy has helped trigger increasing prices across a broad basket of goods and services. Tighter monetary policy and decelerating growth will help to eventually moderate inflation.

Red zone

Indicators of economic activity confirm the gloomy outlook.

(purchasing manager indexes, 2022: blue signals expansion, red signals contraction)



Source: Caixin, CIPS, CommBank, HSBC, Jibun Bank, RBC, S&P Global, via Haver Analytics.

Note: Readings are composite except for Canada, Indonesia, Korea, Mexico and Turkey, which are manufacturing alone. Argentina is excluded due to data limitations.

IMF

Regional Outlook

United States: The Conference Board forecasts that economic weakness will intensify and spread more broadly throughout the US economy over the coming months, with a recession to begin around the end of 2022. This outlook is associated with persistent inflation and rising hawkishness by the Federal Reserve. It forecasts that 2022 real GDP growth will come in at 1.8 percent year-over-year and 2023 growth will slow to zero percent year-over-year.

Europe: GDP reports for the third quarter came in better than expected, particularly for Germany and Italy. Nonetheless, the European economy is clearly slowing, with Euro Area real GDP expanding 2.2 percent on a yearly basis in Q3, down from 4.2 and 5.4 in the second and first quarters of 2022.

China: Data through September show a steady recovery in industrial production and resilient growth in investment, but continued weakness in consumer-focused services. Export growth continues to moderate on the back of a slowing economy. It forecasts China to grow 3.3 percent in 2022 and 5.1 percent in 2023. This is based on a number of assumptions.

Emerging Markets: The economic environment for emerging economies has rapidly deteriorated, which is particularly visible in tightening global financial conditions. This is leading to capital outflows, depreciating currencies, and increased risks of debt crises. Inflationary pressures are either already elevated or are starting to gather momentum, leading to tightening monetary policy and hence weaker growth.

INDIAN ECONOMY

India's GDP forecast for 2022, the US-based global ratings agency Moody's Investors Service has lowered India's growth projections to 7% from 7.7% earlier due to the weak rupee and high oil prices. Despite downward revisions, India remains the world's largest-growing economy in 2022.

India is set to overtake Japan and Germany to become the world's third-largest economy, according to S&P Global and Morgan Stanley. S&P's forecast is based on the projection that India's annual nominal gross domestic product growth will average 6.3% through 2030. Similarly, Morgan Stanley estimates that India's GDP is likely to more than double from current levels by 2031. "The global slowdown will have less impact on domestic demand-led economies such as India. India's output will expand 7 per cent in fiscal year 2022-2023 and 6 per cent in next fiscal year," S&P Global Ratings Asia-Pacific chief economist Louis Kuijs said.

Performance of Key Indicators

The combined Index of Eight Core Industries increased by 0.1 per cent (provisional) in October 2022 as compared to the Index of October 2021. The production of Fertilizers, Steel, Coal and Electricity generation increased in October 2022 over the corresponding month of last year.

Coal production (weight: 10.33 per cent) increased by 3.6 per cent in October, 2022 over October, 2021. Its cumulative index increased by 18.1 per cent during April to October, 2022-23 over corresponding period of the previous year.

Crude Oil production (weight: 8.98 per cent) declined by 2.2 per cent in October, 2022 over October, 2021. Its cumulative index declined by 1.4 per cent during April to October, 2022-23 over the corresponding period of previous year.

Natural Gas (weight: 6.88 per cent) declined by 4.2 per cent in October, 2022 over October, 2021. Its cumulative index increased by 0.9 per cent during April to October, 2022-23 over the corresponding period of previous year.

Petroleum Refinery (weight: 28.04 per cent) declined by 3.1 per cent in October, 2022 over October, 2021. Its cumulative index increased by 8.1 per cent during April to October, 2022-23 over the corresponding period of previous year.

Fertilizers (weight: 2.63 per cent) increased by 5.4 per cent in October, 2022 over October, 2021. Its cumulative index increased by 10.5 per cent during April to October, 2022-23 over the corresponding period of previous year.

Steel (weight: 17.92 per cent) increased by 4.0 per cent in October, 2022 over October, 2021. Its cumulative index increased by 6.1 per cent during April to October, 2022-23 over the corresponding period of previous year.

Cement (weight: 5.37 per cent) declined by 4.3 per cent in October, 2022 over October, 2021. Its cumulative index increased by 8.6 per cent during April to October, 2022-23 over the corresponding period of previous year.

Electricity generation (weight: 19.85 per cent) increased by 0.4 per cent in October, 2022 over October, 2021. Its cumulative index increased by 9.3 per cent during April to October, 2022-23 over the corresponding period of previous year.

As per data released by Ministry of Statistics, India's factory output, measured through the Index of Industrial Production (IIP), witnessed a growth of 3.1% in September. The growth was primarily owing to a rise in manufacturing and mining outputs. The output of the manufacturing sector rose 1.8% in September 2022 as against an 4.3% growth recorded in the year-ago period. Mining output went up to 4.6%. Power generation, on the other hand, was up 11.6% during the month.

As per Ministry of Finance, the gross GST revenue collected in the month of November is ₹1,45,867 crore of which central GST (CGST) is ₹25,681 crore, state GST (SGST) is ₹32,651 crore, integrated GST (IGST) is ₹77,103 crore (including ₹38,635 crore collected on import of goods) and cess is ₹10,433 crore (including ₹817 crore collected on import of goods). Experts are of the view that monthly collection of GST, a weathervane of economic health, is robust and that ₹1.40 lakh crore is the new normal. A minor sequential decline could be on account of weakening of festival demand and the cascading effect of global headwinds, they added. The collection in November pertain to transactions and economic activity in October.

REGULATIONS WATCH Notifications at the WTO

Sanitary And Phytosanitary Notifications

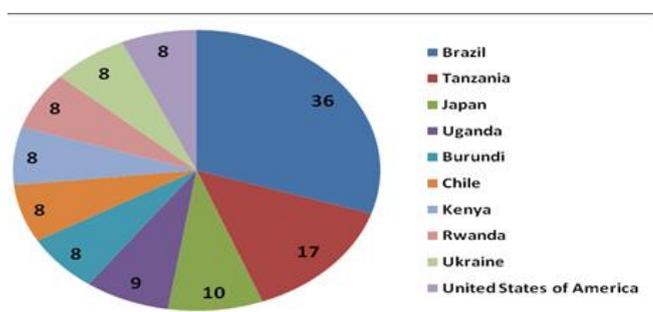
Details Pertaining to SPS Notifications Issued by WTO Member Countries

The total numbers of SPS Notifications issued by the various WTO-Member Countries in 01st November 2022 to 30th November 2022 are 176 of which 154 are relevant to India. Hence, 154 notifications have been studied in 01st November 2022 to 30th November 2022. Out of 154 notifications, 50 notifications were the addendums of draft regulations notified earlier in the WTO.

Details Pertaining to SPS Notifications Relevant to India:

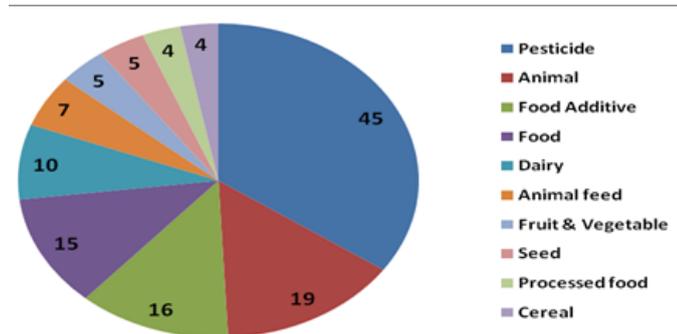
❖ Country-wise Information (Top 10)

Out of the total 154 notifications, Brazil issued 36 notifications, followed by Tanzania (17), Japan (10), Uganda (9), Burundi (8), Chile (8), Kenya (8), Rwanda (8), Ukraine (8) and USA (8) respectively. The remaining 34 notifications were from other WTO Member country.



❖ Product-wise Information (Top 10)

Out of the total 154 Notifications, 45 related to pesticide, 19 related to animal, 16 related to food additive, 15 related to food, 10 related to dairy, 7 related to animal feed, 5 related to fruit & Vegetable, 5 related to seed, 4 related to cereal, 4 related to processed food and 24 notifications were related to other products.



Technical Barriers to Trade Notifications

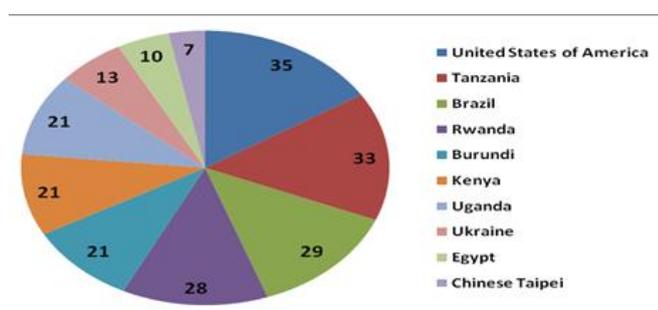
Details Pertaining to TBT Notifications Issued by WTO Member Countries

The total numbers of TBT Notifications issued by the various WTO-Member Countries from 01st November 2022 to 30th November 2022 were 289. Out of 289 notifications, 91 notifications were the addendums of draft regulations notified earlier in the WTO.

Details Pertaining to TBT Notifications Relevant to India:

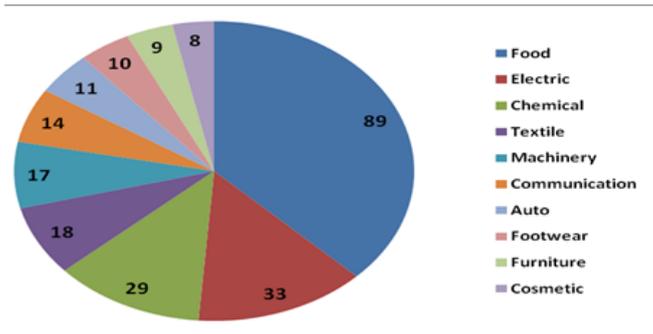
❖ Country-wise Information (Top 10)

Out of the total 289 notifications, USA issued 35 notifications, followed by Tanzania (33), Brazil (29), Rwanda (28), Burundi (21), Kenya (21), Uganda (21), Ukraine (13), Egypt (10) and Chinese Taipei (7) notifications, respectively. The remaining 71 notification were from other WTO Member country.



❖ Product-wise Information (Top 10)

Out of the total 289 Notifications, 89 related to food, 33 related to electric, 29 related to chemical, 18 related to textile, 17 related to machinery, 14 related to communication, 11 related to auto, 10 related to footwear, 9 related to furniture, 8 related to cosmetic and 51 notifications were related to other products.



WTO UPDATES

WTO members resume discussions on e-commerce

On 18 November, WTO members started discussions on identifying specific cross-cutting issues to be addressed under the Work Programme on Electronic Commerce. The expansion of digital trade has helped reduce the costs of engaging in international trade, facilitated the integration to global value chains (GVCs), and connected a greater number of businesses and consumers globally. More specifically, it has offered the potential to help micro, small, medium enterprises (MSMEs) overcome the challenges of scale and distance, selling products directly to consumers online, and facilitate business-to-business transactions.



At the same time, the digital transformation of trade is posing various challenges to policy makers to provide conducive and secure digital trade environment, for both businesses and consumers. WTO members agreed at MC12 to maintain their current practice of not imposing customs duties on electronic transmissions and to intensify discussions on this moratorium. During the recent meeting, some Members have raised concerns regarding the potential loss of government revenue associated with the digitization of goods and the non-application of customs duties on their cross-border trade. Several Members, signaled an interest to further understand the ability to apply internal taxes.

In this respect, it was proposed that following discussions related to the moratorium should take place:

- The impacts of the moratorium
- Lessons learned from businesses, particularly from MSMEs in developing country - Members, including their views on the potential pitfalls of digital regulatory fragmentation;
- Continuation of the exchange of best practices in establishing and implementing internal - non-discriminatory, WTO-consistent taxes on electronic transmissions.

FREE TRADE AGREEMENTS/ BILATERAL DISCUSSIONS

INDIA

India-UK likely to resume FTA negotiations in December

India and U.K. are expected to commence the next round of FTA negotiations in December. There are 26 chapters in the agreement, which include goods, services, investments, government procurement and intellectual property rights (IPR). So far, the two sides have concluded 14 of the 26 chapters. While initial deadline for conclusion of FTA by Diwali has been missed due to delay in resuming negotiations after fifth round of discussions in July. The two sides now expect negotiations to conclude by March next year. On Government procurement, U.K. is seeking relaxation in local content requirements. While on IPR, India is keen on discussing geographical indications (G.I.).



The two sides seem to be in harmony on tariffs, as India has agreed to provide substantial tariff concessions to the U.K. on products like auto and alcohol. According to a media report, U.K. government has also agreed to give relief on maturation conditions to Indian whiskey exporters. Under the new rules for trade in alcohol, U.K. government is planning to classify Indian liquor as Indian imported liquor and allow access to Indian liquor with three years maturation period. In addition to liquor sector

(primarily Scotch whisky segment), financial services and cutting-edge renewable technology are also among some key sectors set to benefit. Exports of Indian labour-intensive sectors like textiles, leather, and gems and jewellery will also get boost in the UK market. However, discussion on Mode-IV, i.e., the movement of natural persons, likely remains an issue for U.K. authorities. UK Prime Minister Rishi Sunak is reportedly planning to bring

down immigration numbers by limiting the entry of students. A move which may impede the progress made early on issue of immigration and visas. In November, U.K. finalized a reciprocal migration deal with India under which 3,000 U.K. visas will be offered to young professionals from India. The recent data reveals Indians are the largest receipts of 'Skilled Worker' visas from U.K.

Australia ratifies its early harvest trade deal with India



India-Australia early harvest trade deal has recently been approved by the Australian Parliament. The trade deal will come into force from 29 December 2022. Early this year, the interim trade deal- Economic Cooperation and Trade Agreement, ECTA was finalized and signed by both nations. However, the ratification process got delayed following change in political leadership of Australia. Piyush Goyal, minister of commerce and trade has stated that the implementation of deal is likely to open up markets across 6,000 broad Indian sectors that could include final goods.

Zero duty benefits will be extended to all Indian products within five years. Australia, in turn, will get zero duty benefits for 90% of its exports (in value terms) to India. Elimination of Australian import duties will mainly benefit India's labor-intensive exports such as textiles and apparel, agriculture and fish products, leather, footwear and furniture, several engineering products, jewellery, select pharmaceutical and medical devices, furniture and sports goods. India may also benefit from exports of certain services such as business and commercial services as well as computer and information services. Data from the Ministry of Commerce and Industry reveals that in the first three quarters of FY23, energy products dominated India's trade with Australia. By September 2022, automotive diesel fuel, high-speed diesel and automotive gasoline alone accounted for more than 55 per cent of India's exports to Australia. Of the \$15.6 billion imports from Australia this year, coking coal (\$9.56 billion), steam coal (\$1.4 billion), and other forms of coal (\$1.37 billion) accounted for close to 80 per cent of the total imports from Australia.

India-EU move towards third round of negotiations



India and the EU are likely to start the next round of talks on the proposed India-EU FTA between November 28 and December. The India-EU FTA focuses on multiple areas including market access for key industrial and agricultural goods, intellectual property, digital

trade, government procurement, data secure status, and environment & sustainability issues including labor and gender. About 75 sessions on 19 policy areas are scheduled in the third round. EU is expecting a significant reduction in tariffs on wines & spirits and automobiles. India is likely to demand data adequacy status, for easy flow of cross-border data which is important for exports of services sector. Mainly, labor-intensive sectors such as Indian textiles, leather, sports goods and processed food are likely to benefit from the trade agreement. Issues such as relaxation in the rules of EU work visa, intellectual property, digital trade and government procurement are some of the challenges which needs to be resolves for early conclusion of the FTA.

India-GCC start FTA negotiations

India and Gulf Cooperation Council (GCC) started first round of FTA negotiations on November 24. GCC comprises Saudi Arabia, UAE, Qatar, Kuwait, Oman and Bahrain. India has already entered into FTA with UAE, early this year. In the first round of discussions, the two sides are likely to discuss issues related to food security, logistics and regulatory measures.



Primarily, The GCC is keen to ensure food security while India's concerns relate to regulatory measures, especially in some food items. India wants resolution of issues such as sanitary and phytosanitary measures which pertain to food safety, animal and plant health, as the GCC follows EU standards for maximum residue level limit.

OTHERS

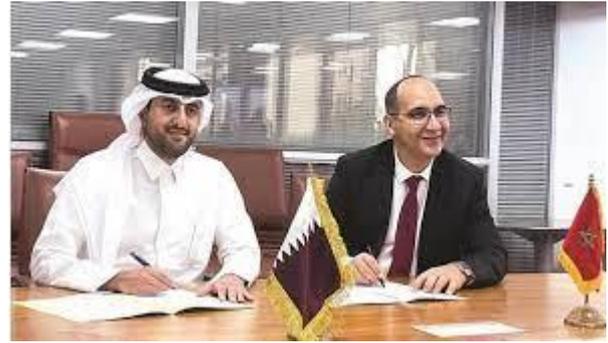
UK signs fintech trade agreement with Singapore

UK and Singapore have entered into a Memorandum of Understanding (MoU) to remove barriers to fintech trade and boost cooperation. Previously, the two sides signed a Regulatory Cooperation Agreement in 2016 to enable close alignment of fintech sectors at a regulatory level. The recent MoU will deepen engagement between businesses, and regulators, adding value to previous co-operation.



The MoU between UK and Singapore will strengthen a framework for vital regulatory and policy discussions between the two countries. It will also enable innovation across financial services, and ensure businesses growth while driving better outcomes for customers. Under the deal, known as Fintech Bridge, policymakers from both the UK and Singapore will meet regularly with the fintech sector to work to remove regulatory barriers to trade. The FinTech Bridge will create new opportunities and greater alignment of regulatory approaches which will help in the expansion of FinTechs markets in both countries.

Morocco-QATAR concludes first round of FTA negotiations



Source: MENAFN

Morocco and Qatar recently concluded the first round of negotiations on the Free Trade Agreement (FTA). The two sides discussed strengthening cooperation on trade in goods and services, investments, competition, dispute settlement, and protection of intellectual property. The second round of negotiations is expected to take place in Doha. The two countries also signed an information-sharing agreement in September to facilitate the organization of the competition. In addition, Morocco and Qatar have been working on fostering economic ties by removing trade barriers and increasing trade volumes. Between 2017 and 2021, the trade volume between the two countries increased by 130% reaching \$207 million, up from \$90 million. The FTA deal is expected to further accelerate this growth by encouraging cooperation between businesses in both countries.

POLICY – REGULATORY BRIEF

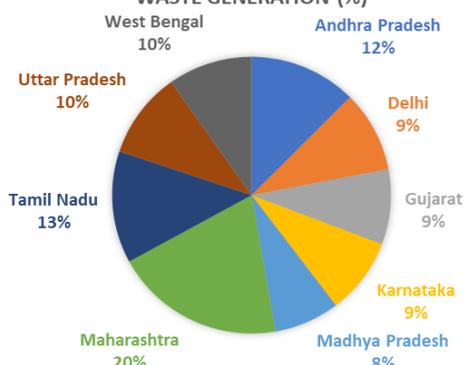
INDIA

E-waste (Management) Rules 2022

The Ministry of Environment, Forest and Climate Change (MoEFCC) published the draft rules in May this year for stakeholders' consultations. Recently, the ministry notified the final E-Waste (Management) Rules with significant changes. These rules will come into force from the 1st of April, 2023.

India is the third largest e-waste-producing country in the world after China & USA. As per the roundup global statistics, as of November 2022, India produces 3230 Kt e-waste at one per cent of the recycling rate. Among the top ten cities in India, Mumbai ranks first in generating e-waste, followed by Delhi, Bangalore, Chennai, Kolkata, Ahmadabad, Hyderabad, Pune, Surat and Nagpur.

STATE WISE E-WASTE GENERATION IN INDIA (TONNES/YEAR) E-WASTE GENERATION (%)



Source: CPCB

The 65 cities generate more than 60% of the total generated e-waste, whereas ten states generate 70% of the total e-waste.

Financial Year	Number of Authorized Dismantlers/ Recyclers	Total Capacity (Tonnes per Annum)
2016-17	178	4,38,086
2017-18	275	5,10,950
2018-19	312	7,82,080.62
2019-20	407	11,10,103.22
2020-21	468	13,85,932.22
2021-22	472	14,26,685.22

Source: Lok Sabha Question

As per the notified rules, manufacturers shall use the technology or methods to make the end product recyclable. They shall ensure that components or parts made by different manufacturers are compatible with each other to reduce the quantity of e-waste.

The rules restrict the use of hazardous substances for manufacturing electrical and electronic equipment. This comes in response to the deaths caused by exposure to radioactive materials. Electronic equipment manufacturers are mandated to reduce the use of lead, mercury, cadmium, and others that can harm human health and the environment. These materials can adversely affect the brain, heart, liver, kidneys and skeletal system. It also causes harmful effects on neurological and reproductive systems.

Further, the rules apply to Solar PV module waste. This was included by a task force constituted by MoEFCC & Ministry of New and Renewable Energy (MNRE), which drafted a policy framework for adopting a circular economy in solar energy.

One of the members from the task force stated that “the task force had recommended Extended Producer Responsibility for Solar PV module waste, and was accepted. Recycling will enable India to achieve ‘Atmanirbhar’ as the reclaimed materials can be re-used as secondary raw materials to produce new modules and prevent new mining that causes environmental damage. There are, however, challenges but can be tackled with indigenous R&D.”

The ministry has also increased the E-waste item list in the rules from 21 to 106. They also lay down the recycling targets under extended producer responsibility (EPR) per Schedule III from FY 2023-24 till FY 2028-29 & Schedule IV from FY 2023-24 till 2025-26. These E-Waste recycling targets do not apply to waste generated from solar photovoltaic modules, panels, or cells.

Draft Digital Personal Data Protection Bill, 2022

The draft Digital Personal Data Protection Bill (DPDP), 2022 has been released by the Ministry of Electronics and IT (MeiTY) months after the withdrawal. The MeitY withdrew the Data Protection Bill, 2021 on the premise that the Joint Committee had recommended substantial amendments to the original draft, highlighting the need for developing a "comprehensive legal framework" to regulate the online space, including bringing separate laws on data privacy, the overall Internet ecosystem, cybersecurity, telecom regulations, and harnessing non-personal data to boost innovation in the country.



The new draft bill is supposed to outline the rights and duties of "Digital Nagriks" or citizens while laying out the process and rules for data collection regarding companies. According to an explanatory note for the bill, it is based on seven principles.

1. Usage of personal data by organisations must be done lawfully, fair to the individuals concerned and transparent to individuals.
2. Personal data must only be used for the purposes for which it was collected.
3. Data minimization
4. Emphasize on data accuracy when it comes to the collection
5. Personal data cannot be stored perpetually by default, and storage should be limited to

a fixed duration.

6. There should be reasonable safeguards to ensure unauthorized personal data is not collected or processed.
7. The person who will use the data for a decided reason will be accountable for the processing.

The DPDP Bill 2022, gives maximum control to the data principal. It mandates a comprehensive notice to the data principals on different aspects of data processing. Data Principle to an individual whose personal data is related, and if the individual is less than the age of 18 years, then parents or legal guardian will be legal data principal.

The draft Bill covers processing (which includes collection/recording, storage, alteration, dissemination, removal/deletion etc.) of personal data, the obligations of the data fiduciary (one who determines the purpose and means of processing personal data), rights and duties of the data principal (whose personal data is involved), and also sets up a compliance framework, which includes the establishment of a Data Protection Board.

The draft bill envisages seeking prior consent from the data principal through an 'itemized notice' containing the description of personal data and the purpose of processing that personal data. The data fiduciary can only access such personal data with the data principal's permission. If the data principal gives consent, it must be clear, legally binding, and available to the data principal if requested access. Additionally, the data principle retains the right to revoke its consent at any time (through a consent manager). In such a case, the data fiduciary will stop processing the personal data (within a reasonable timeframe).

The draft bill obliges data fiduciaries to guarantee that personal data is processed, stored, or deleted securely and ethically. The

data fiduciary should ensure that all reasonable measures are taken to prevent personal data breaches. The bill mentions that data fiduciaries must retain personal data only till the required purpose. Data fiduciaries must provide their contact details to whom queries or grievances can be addressed. The Bill lays down additional obligations while processing children's personal data, including seeking consent from parents/guardians.

The bill also provides data principal rights and duties, such as the right to information about personal data at every stage of the process, the right to correct and erase the data and the right to a grievance. In case of erasure, the data fiduciary must erase personal data that is no longer necessary unless it is required for legal purposes. In case the data principal can register their grievance to the data fiduciary and is obliged to address it within seven days.



Source: Global Voice Group

The Personal Data Protection Bill required data localization (for transfers outside of India). However, the draft Bill proposes that it will notify a list of nations to whom a data fiduciary may transfer personal data, subject to applicable terms and conditions.

The draft Bill imposes hefty penalties divided under six heads (under Schedule 1), the lowest being ₹50 Crores and extending to a maximum penalty of ₹250 crores.

Ministry of State for Electronics and IT, Rajeev Chandrasekhar, clarified the question that

through this law government can violate the privacy of citizens and the government be on the Data Protection Board (DPB). First, the minister said that the bill and laws laid out are clear terms, government can have access to the personal data of the citizens only in exceptional cases, i.e. national security, pandemic, healthcare and natural disasters. And on the DPB, the minister said it is not a regulator. DPB is an adjudication mechanism to adjudicate a breach that has occurred. It is independent as the government will not be on the board.

Draft Uttar Pradesh Green Hydrogen Policy 2022

The Government of India-led 'National Green Hydrogen Policy 2022' and 'National Hydrogen Mission 2022' to achieve the Prime Minister's vision of India becoming a global hub for green hydrogen. The Government of Uttar Pradesh drafted the Green Hydrogen policy 2022 aims to cut hydrogen costs to \$2/kg in the next five years and whittle it further to \$1/kg in the long term.



The state aims to achieve 20% green hydrogen blending in total hydrogen consumption by 2028 for existing fertilizer and refinery units and ramp it up further to 100% by 2035. The draft policy proposes a capital expenditure subsidy of 60% of the electrolyser cost in 2024. The state will set up a state centre of excellence (CoE) to lead research, development, and techno-economic innovation activities.

Through a focused approach to chemical fertilizer and the refinery sector, the policy aims to start the stage journey towards becoming a green hydrogen economy. The sectors

contribute nearly 55% of the state's industrial emissions, and promoting greenhouses it will help address the substantial amount of state emissions. The policy shall be in force for five years.

Further, the policy argues the need to encourage innovation to reduce costs over time. The cost of green hydrogen is a major constraint in its adoption. Green hydrogen cost in the state stands at \$2.8/kg (using Round the Clock (RTC) renewables) to \$7/kg (using power from a standalone solar plant in the state). The current hydrogen demand in the state stands at around 0.9 million tonnes per annum, primarily used in the production of nitrogenous fertilizers.

The minimum capacity to avail of the subsidy must be above 50MW. The state government's monetary initiative will be reduced by 20% by 2027.

Incentives provided in the 'Industrial Investment and Employment Promotion Policy 2017' such as exemption of stamp duty, tax reimbursement, capital interest subsidy, infrastructure interest subsidy, and electricity duty, will apply to new green hydrogen/ammonia investment and expansion of existing fertilizer units in the state.

Karnataka research development and innovation policy

At Bengaluru Tech Summit, Karnataka Chief Minister Basavaraj Bommai released the 'Karnataka Research Development and Innovation Policy, which has the focal objective of financing the infrastructure and institutions. Karnataka CM said that the goal of technology and innovation is to reduce the digital divide worldwide.

The policy's main objectives are to improve the governance and financing of the research and innovation system and policy that drives the regional ecosystem. This will support entrepreneurship and Micro, Small and

Medium-Sized Enterprises (MSMEs) and promote R&D in priority sectors for social transformations.

Source: Alcor Fund



According to the official statement, the policy to expand the financial reach of the research and innovation ecosystem, each department/ministry of the state government should earmark their budget for research and innovation activities. To achieve a national average of 0.7 per cent of GDP and 2 – 3 per cent of state GDP in the next 5 years, additional funding from state government agencies is proposed to increase by 0.1 per cent of state GDP every year.

The policy proposes that the Karnataka Technology Innovation and Entrepreneurship (K-TIE) initiative will be launched, bolstering the entrepreneurial environment outside of Bengaluru. This programme will offer incentives to start businesses outside the nation's capital.

WORLD

Windfall Tax on oil, gas & energy companies

A windfall tax is a tax that the Government imposes on a company or a group of companies when they benefit from something that happened outside their control. A recent example is that energy companies benefit from the increased demand for energy following the pandemic and Russia's invasion of Ukraine. During the pandemic and Russia's invasion, there was an increase in demand globally and

supply was not affected. Taking advantage of the scenario, energy companies exported the oil or energy at high prices and earned immense profits. By this, prices in the home country also shot up, affecting the consumer's households.



The UK government is hiking a windfall tax on oil and gas companies and extending the levy to electricity generators. The Energy Profits Levy on oil and gas businesses will increase from 25% to 35% on 1st January 2023 and remain in place until the end of March 2028. According to the Treasury, this increases the total tax on the sector to 75%.

During this time, there will also be a new, temporary 45% levy on the surplus earnings of electricity generators. Electricity rates in the United Kingdom are linked to wholesale gas prices, which implies that many power generators are also profiting. These measures will generate £14 billion (US\$16.5 billion) in revenue next year and more than £55 billion (US\$65 billion) between 2022 and 2028.

Recently, India also raised the tax on crude oil to 10,200 Indian rupees (US\$125.22) per tonne from 9,500 rupees per tonne. In September, Finance Minister Nirmala Sitharaman explained that introducing the windfall tax was a way to rein in the “phenomenal profits” made by some oil refiners who chose to export fuel to reap the benefits of skyrocketing global prices while affecting domestic supplies.

In September, European Union countries agreed to levies tax on energy companies' windfall profits which is crunching the EU energy market. Germany's finance minister cites the

draft document to introduce a 33% tax on oil and gas companies that have benefited from windfall profits. Finland plans to temporarily introduce an additional tax on energy profits for a year.

With earning profits, there also are issues while imposing windfall taxes. Companies invest in a sector if the tax environment is predictable and stable. Since windfall taxes are imposed retrospectively, they can create market uncertainty about future taxes. Therefore, imposing a temporary windfall profit tax discourages future investment since prospective investors will consider the possibility of potential taxes when making investment decisions.

Transforming the world: Broadband Connectivity for Sustainable Development

The importance of broadband connectivity was brought into sharp focus with COVID-19. The pandemic accelerated the adoption of broadband and digital services by individuals and businesses, as well as the digitization of government services and the spread of e-commerce. Post-pandemic, this will see growth with better quality and broadband networks.



The ITU and United Nations (UN) Broadband Commission for Sustainable Development issued their annual report on connecting the

world to affordable broadband ISP connectivity. To achieve a transition to the post-pandemic connected world, two developments are outlined in the report: a regulatory environment

that stimulates broadband services and attracts investment, as well as strategies and policies that enable broadband adoption and hasten digital inclusion.

The report lays down the seven targets for 2025 to assist in connecting the large population of the world that is inaccessible to broadband internet.

Make Broadband Policy Universal: By 2025, all countries should have a funded National Broadband Plan (NBP) or strategy or include broadband in their Universal Access and Service (UAS) Definition.

The number of countries with a plan has decreased over the period of time as plans have expired. The report on financing universal access highlights the need for a change in thinking, such as – proper design for infrastructure & target the underserved population.

Make Broadband Affordable: By 2025, entry-level broadband services should be made affordable in low- and middle-income countries at less than 2% of monthly Gross National Income (GNI) per capita.

After years of improvement, the affordability of broadband services worsened in 2021–due to a sharp drop in per capita income as a result of COVID-19 rather than an increase in service charges, which continued to fall. The demand for the internet has also increased despite becoming less affordable, which makes it a necessity than a luxury. This increase in demand will contribute to GDP direct or indirectly.

The ITU report provided a reference to a report commissioned by the European Telecommunications Network Operators (ETNO) published by Axon Partners in May 2022 that examined the benefits of contributions by leading OTT players to the cost of building telecommunications networks in the European Union. The ETNO report concludes

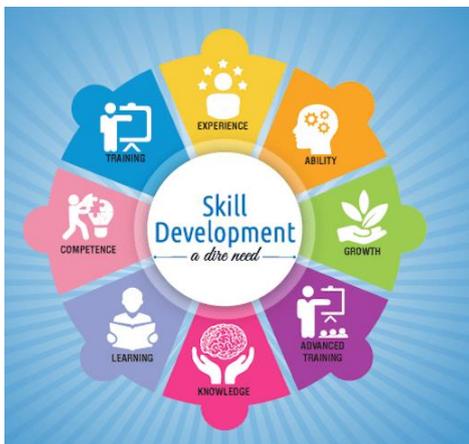
that annual contributions by leading OTTs could increase the EU's GDP by as much as EUR 72 billion by 2025 and parallelly increase employment of up to 840,000 jobs annually; with positive effects on both user experience and innovation levels; and a steep reduction of energy consumption and carbon emission levels.

Get Everyone Online: By 2025, broadband-Internet user penetration should reach: i) 75% worldwide; ii) 65% in low- and middle-income countries; and iii) 35% in least-developed countries

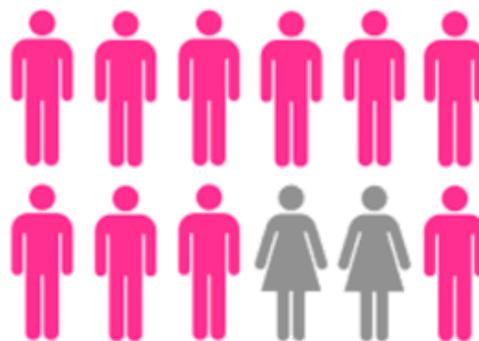
In 2020, the first year of the pandemic, the number of Internet users increased to 11%. The largest increase in a decade of internet users increased by 15% in low- and middle-income countries (LMICs). According to the latest International Telecommunication Union (ITU) figures, Internet consumption reached 5.3 billion people in 2022, accounting for 66% of the population. With all this surge, some groups – elderly & disabled persons left behind.

Promote Digital Skills Development: By 2025, 60% of youth and adults should have achieved at least a minimum level of proficiency in sustainable digital skills

After the pandemic, there is more way to go as less than 40% of the population in 45% of reporting countries carried out at least one of the activities considered a basic skill (e.g., sending an e-mail with an attachment). Only 23% of the countries reported more than 60% of the population report having at least one basic ICT skill. There are challenges with the coverage and interpretation of this indicator which is complex and seeks to measure a broad range of skills.



Bridge the Gender Digital Divide: By 2025, gender equality should be achieved across all targets.



Digital Financial service: By 2025, 40% of the world’s population should be using digital financial services.

According to the World Bank’s Findex survey, 64% of people aged 15 years and older made and received digital payments in 2021. This figure exceeds the target of 40% on a global basis. According to the World Bank, digital payment rose in 2017 but sowed a huge jump during the pandemic as four in ten people in developing countries started using digital payment. This happened because of government and e-commerce platforms supporting digital payment from fear of spreading diseases.

In 2022, according to ITU, 69% of men and 63% of women use the Internet. According to GSMA, South Asia was the main contributor to the dramatic reduction in the gender gap in mobile Internet use, which went from 67% in 2017 to 36% in 2020. But the growth has stalled in LMICs as in some countries, and mobile internet use has decreased over time. Across LMICs, the gender gap for smartphone ownership among women had reduced to 16% in 2020, but this rose to 18% last year. This shows it may impact financial inclusion for women and drive them to become economically independent.

Get MSMEs Online: By 2025, improve the connectivity of micro-, small- and medium-sized enterprises (MSMEs) by 50%, by sector.

The MSMEs sector is affected during the pandemic, especially LMICs countries. Low levels of ICT use were reported in a survey of unregistered businesses in nine African nations. The average percentage of individuals who used the Internet for business purposes was 7%, ranging from 24% in South Africa to 1% in Rwanda. Over 90% of firms surveyed in Ghana, Kenya, Mozambique, Nigeria, Rwanda, Tanzania, and Uganda reported not owning a computer.

OPINION COLUMN

Smart Manufacturing
Akriti Kumari

Is Smart Manufacturing the way to achieve targets of Sustainability?

The general sense of urgency to address climate change is intensifying. For businesses, this means sustainability is no longer just a marketing bonus. Sustainable practices are table stakes to create long-term value and compete in the global economy.

According to IPCC Special Report on Global Warming, Human-caused emissions of carbon dioxide need to fall 45% from 2010 levels by 2030 and reach net zero by 2050 to limit climate change catastrophe.

We all want to do whatever we can to avert the mounting climate crisis, threats to biodiversity and other negative environmental impacts, but we are facing serious challenges.

Today's forward-thinking organizations are seeking to include sustainability into a comprehensive strategy that makes sense for the business.

Most are able to comply with Environment, Health, Safety & Sustainability (EHS&S) regulations, but with data currently trapped in information silos, executives and plant managers are challenged to go beyond compliance and begin to actively manage sustainability as a top-level strategy and then optimize that strategy across the business.

Businesses with robust sustainability practices demonstrate better operational performance, ultimately translating into higher cash flows. Smart manufacturing increases productivity, performance, flexibility and efficiency which ultimately makes companies stronger economically and sustainable.

In addition to these benefits of smart manufacturing, there are also sustainability benefits that effect workers and the environment, including increasing resources and energy efficiency, deploying sustainable infrastructure, securing health and safety for workers and a better quality of life. Smart manufacturing, being part of Industry 4.0, allows for responsible consumption and production aimed at doing more and better with less.

How can manufacturers be sustainable and profitable at the same time? The answer is with smart factories, they can be both. Smart factory is a concept that describes an intelligent, digitally connected plant that the applies and integrates advanced technologies to achieve the goals of Industry 4.0.

Automation, industrial IoT, cloud computing and data analytics all play a critical role in creating a fully connected smart factory that runs on digitally supported insights and decision making. Each of these elements also is pivotal to achieve your sustainability goals.

Indian Scenario

India follows a holistic approach towards its 2030 Sustainable Development Goals (SDGs) by launching various schemes such as, Swachh Bharat mission, Beti Bacho Beti Padhao, Pradhan Mantri AwasYojana, Smart Cities, Pradhan Mantri Jan Dhan Yojana, Deen Dayal Upadhyay Gram Jyoti Yojana and Pradhan Mantri Ujjwala Yojana, Namami Gange Mission, National Clean Air Programme 2019 and National Policy on Resource Efficiency (RE) among others.

Let us also look at Indian Companies working towards sustainability. According to 2022 Deloitte CxO Sustainability Report, 80% of Indian executives today see the world at a tipping point for responding to climate change. The report also highlights that the, Indian CxOs are slightly more likely to have been personally

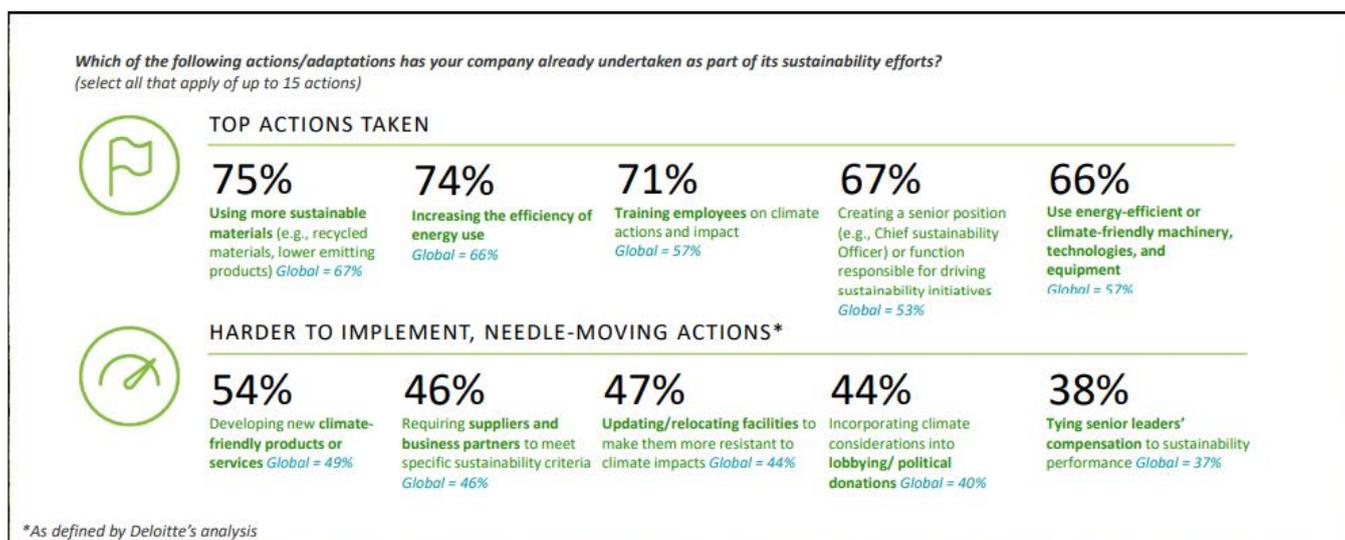
impacted by climate events in some way over the past year, citing extreme heat, water shortages, and severe flooding as top impacts.

The report also speaks about, Indian companies being more advanced than the global average and are more likely to be implementing the tougher actions defined by Deloitte’s analysis. Indian organizations are 5% more likely to have undertaken the development of new climate-friendly products or services and 4% more likely to have incorporated climate considerations into lobbying/political donations compared to the global average.

Indian tech industry, is of the view that sustainability is a billion-dollar opportunity for the sector, with 50% of enterprises allocating over 5% of total investment budget towards sustainability.

So, we can conclude that Indian government and industry will have to work closely to achieve the nations sustainability goals, and Smart Manufacturing will act as a crucial enabler for both the stakeholders to help reaching their goal.

(The writer is a Senior Research Analyst at VeKommunicate)



G-20 contribution in International Trade

The Group of Twenty (G20) is an inter-governmental forum to discuss and deliver on major international economic issues. The G20 comprises Argentina, Australia, Brazil, Canada, China, EU, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, UK and USA. Its members together represent around 85% of global GDP, over 75% of global trade, and two thirds of the world's population. G-20 countries have a set of objectives to achieve. This includes policy coordination among members for ensuring global economic stability & sustainable growth.



Trade which has become a powerful engine for economic development in recent decades, is one of the important agenda for G20 members. Coherence in trade policies is critical for achieving stated G20 objectives. G20 members recognize that facilitating trade and investment will enhance the ability of developing countries and SMEs to participate in and move up the value chain in GVCs, and recognize the importance of economic diversification and industrial upgrading in developing countries. According to OCED report 'G20 contribution to the 2030 Agenda', G20 members have made collective progress in removing barriers to international capital flows.

Trade can be harnessed further to address the cross-cutting issues such as climate change, food security, health security, etc. that are currently impacting the G-20 economies. For example, climate change has resulted in affected farm produce and subsequently disrupted food supplies. Moreover, the increasing scarcity of water across the globe due to climate change, is also impacting the agriculture produce and affecting the livelihood of crop producers. The situation has led to global food insecurity and food inflation resulting in cost-of-living crisis which threatens the growth of economies. G20 members Argentina and Turkey are among the countries worst hit by food inflation.

G-20 economies can address this issue by entering into trade negotiations to secure food supplies for member countries. Similarly, climate change also threatens the integration of G-20 economies and trade. For example, EU countries, which together represent one of the members of G-20, are looking to introduce carbon border tax which will impact the exports of other G-20 economies. Trade is important for development of businesses especially MSMEs in developing economies of G20. Therefore, it is important for G-20 members to address trade costs, and to reduce the time and uncertainty of moving goods and services, including by addressing behind the border measures.

By mid-October 2022, 11.6% of G20 imports were affected by trade-restricting measures implemented since 2009. According to a WTO report, the pace of implementation of new export restrictions has increased since 2020, first in the context of the pandemic and subsequently with the war in Ukraine and the food crisis. Some of these export restrictions have been gradually lifted, but several still remain in place. As of mid-October 2022, there are 44% export restrictions placed on food, feed and fertilizers by G20 economies among all WTO members. The report also highlights that 63% of the pandemic-related export restrictions, were maintained by G20

economies.

Starting from December 2022, India has assumed the G20 year-long presidency which will last till 30th November 2023. India theme for its presidency, is “One Earth, One Family, One Future.” G20 Presidency is an important opportunity for India to bring focus on issues of critical global importance and put forth its narratives on trade which supports multi-literalism and deeper global value chain integration. Under India’s presidency, G-20 members will work on shared priorities mainly defined by Indian leadership.

There is a growing correlation between shared priorities and trade relations. This is because countries mainly like to trade with countries prioritizing similar interests. The increase in shared priorities will increase the opportunities for trade among G-20 members, and India has a great opportunity to decide what those priorities should be and form a comprehensive strategy to achieve those objectives through trade.

(The writer is an Account Executive at VeKommunicate)

Digital Technologies to reduce carbon footprints

Greater use of digital technologies during COVID-19 led to increased electricity use. According to World Bank data, electricity use increased in 2020 among ICT companies, despite a 0.9 per cent global drop in electricity generation, the first decline since 2009. Greenhouse gas (GHG) emissions in the ICT sector also grew slower than in previous years, implying that grids are increasing their share of renewable energy. Further widespread use of digital technologies had an enabling effect on users through the avoidance of emissions. While there was an increase in household energy usage, these emissions were far less than those that would have occurred from transportation to work.

According to a European Union report, growing data traffic will drive higher energy use. Newer infrastructure is more energy efficient per unit of traffic. For instance, 5G is up to seven times more energy efficient per unit of data than 4G, and fibre optic cable emits far fewer emissions per unit of data than coaxial cable or hybrid fibre coaxial (HFC) cable. However, some argue that the increased data traffic from 5G due to greater bandwidth and Internet of Things/machine-to-machine (IoT/M2M) devices will result in growing energy consumption.

International Telecommunication Union (ITU) estimates that by 2025, at a global scale, mobile networks will be responsible for energy consumption of 170 terawatt-hours (TWh), and fixed networks will add another 100 TWh. Considering that 5G networks are expected to be 10 times more efficient, a shift of mobile traffic onto 5G networks would lead—in a steady-state situation—to an overall reduction of total energy consumed and carbon emissions.

Nevertheless, the telecommunications industry faces a challenge in financing the roll-out of 5G networks, particularly in emerging economies.

ICT sector clean transition

The ICT sector accounts for 1.4 per cent of global GHG emissions. An inevitable result of growing digitalization is higher electricity usage for networks and data centres. Greater energy efficiency through an upgrade of cooling, air ventilation/management, electricity system, and heat recovery, along with a continuous improvement in both data storage and processing infrastructure, will ensure a cost-effective green transition of data centres. New data centres should also be built with energy efficiency, renewable energy and heat recovery as essential criterion, which can provide large economic and environmental gains.

Governments also have an important role in lowering ICT emissions by liberalizing energy markets. This includes decoupling grids, allowing independent renewable power producers, and minimizing or eliminating duties and taxes on renewable energy products. ICT companies need to do everything they can to reduce and eliminate their operational emissions.

The telecommunications sector has shown significant leadership in upholding rigorous emissions reduction commitments. According to GSMA, as of the end of 2021, 44 per cent of telcos measured in connections and 63 per cent in revenue had either a commitment or active science-based target in place. The significance of this methodology is related to its alignment with the crucial UNFCCC Paris Agreement. It is important to note that climate action goes beyond mitigation and that the creation of digital infrastructure and digital inclusion are key for successful adaptation, something crucial in emerging markets.

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