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**STANDING COMMITTEE ON
COMMUNICATIONS AND
INFORMATION TECHNOLOGY
(2024-25)**

EIGHTEENTH LOK SABHA

MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY

‘IMPACT OF INFORMATION TECHNOLOGY AGREEMENT IN THE NEW AGE’

TWENTY FIRST REPORT



**LOK SABHA SECRETARIAT
NEW DELHI**

October, 2025 / Asvina, 1947 (Saka)

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Presented to Hon'ble Speaker on 04.10.2025



LOK SABHA SECRETARIAT

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**Composition of the Standing Committee on Communications and
Information Technology (2024-25)**

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Lok Sabha**

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3. Shri Anil Baluni
4. Dr. Rabindra Narayan Behera
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| 3. Shri Salil Saroj | - | Under Secretary |

Committee constituted w.e.f. 26th September, 2024 vide Para No.833 of Bulletin Part-II dated 26th September, 2024.

* Shri Saket Gokhale has been nominated vide Para No. 853 of Bulletin Part –II dated 03rd October, 2024.

INTRODUCTION

I, the Chairperson, Standing Committee on Communications and Information Technology (2024-25), having been authorized by the Committee do present this Twenty First Report on the subject 'Impact of Information Technology Agreement in the new age' relating to the Ministry of Electronics and Information Technology.

2. The Standing Committee on Communications and Information Technology (2024-25) selected this subject for detailed examination and Report to the Parliament. The representatives of the Ministry of Electronics and Information Technology, Ministry of Communications (Department of Telecommunications), Ministry of Commerce and Industries (Department of Commerce), Ministry of External Affairs (Legal and Treaties Division), Centre for Trade and Investment Law (CTIL), India Cellular and Electronics Association (ICEA) and Academy of Business Studies deposed before the Committee on the subject on 9th April, 2025.

3. The Committee at their Sitting held on 9th September, 2025 considered and adopted the Report.

4. The Committee wish to express their thanks to the representatives of the Ministry of Electronics and Information Technology, Ministry of Commerce and Industries (Department of Commerce), Ministry of External Affairs (Legal and Treaties Division), Centre for Trade and Investment Law (CTIL), India Cellular and Electronics Association (ICEA) and Academy of Business Studies for furnishing written information/views and/or appearing before the Committee, which was of immense help in the examination of the subject and report.

5. The Committee also place on record their appreciation for the invaluable assistance rendered by the officials of Lok Sabha Secretariat attached to the Committee.

6. For facility of reference and convenience the Observations/Recommendations of the Committee have been printed in bold in Part-II of the Report.

**NEW DELHI;
11 September, 2025
20 Bhadra, 1947 (Saka)**

**DR. NISHIKANT DUBEY,
Chairperson,
Standing Committee on
Communications and Information Technology.**

REPORT
Part-I
(Narration Analysis)
CHAPTER-I

I. Introduction

1.1 The Information Technology Agreement (ITA) is a plurilateral agreement which came into existence through the Ministerial Declaration on Trade in Technology Goods at the WTO Ministerial Conference in Singapore on December 13, 1996. Subscribed initially by 29 members, participation quickly increased at the beginning of 1997 when a number of other members decided to join the Agreement. India joined the ITA on 25th March 1997. As a part of India's schedule, 217 HS lines are covered under the IT Agreement for which the duty has been reduced to zero till 2005. As per ITA, HS (Harmonised System) codes are used to classify goods for international trade. HS lines are those related to Information Technology products. As on date, there are altogether 81 member signatories, including 27 EU member countries and Republic of Seychelles, accounting for about 97 per cent of the world trade in Information Technology (IT) products.

1.2 As the first and most significant tariff liberalization arrangement negotiated in the WTO after its establishment in 1995, it led to the elimination of import duties on products which in 2013 accounted for an estimated US\$ 1.6 trillion, almost three times as much as when it was signed in 1996. The ITA covers a large number of high technology products, including computers, telecommunication equipment, semiconductors, semiconductor manufacturing and testing equipment, software, scientific instruments, as well as most of the parts and accessories of these products. Today, trade in these products account for about 10% of the world exports.

1.3 The ITA requires each participant to eliminate and bind customs duties at zero for all products specified in the Agreement. Since the ITA concessions are included in the participants WTO schedules of concessions, the tariff elimination is implemented on a "Most-Favoured Nation" (MFN) basis. This means that even countries that have not joined the ITA can benefit from the trade opportunities generated by ITA tariff elimination. This is brought into effect by each member country notifying the tariff reduction in their schedule of concessions.

II. Salient Features of ITA-1

1.4 ITA-1 covers over 200 physical IT products broadly categorized under semiconductors, computers, telecommunications equipment, and software.

1.5 The agreement provides for periodic meeting to review the product coverage in the light of technological developments, experience in applying the tariff concessions, or changes to the HS nomenclature, the Attachments to be modified to incorporate

additional products. Agreement provides for review of non-tariff barriers, but no binding commitments. There is no exit clause specified in the agreement.

1.6 The Harmonized System of Nomenclature (HSN) code is a globally standardized 6-digit system for classifying products traded internationally. The 6-digit code may be extended by nations to more digits (e.g., 8 or 10) for domestic purposes or more detailed categorization. India follows an 8-digit system for classification and tax determination. The HSN codes are regularly updated/ replaced. A one to one mapping of the then HS codes (HS 1996 system when ITA was introduced) with the currently used code (HS 2022 system) has not been possible and it remains an area of dispute.

1.7 The HSN Code indicating a particular product is usually amended in 5 years. These amendments, also called 'Transposition of HSN Codes' can lead to broadening or shrinking of product categories under an HSN Code, affecting the scope of commitments under ITA, and thus may often lead to disputes. The amendments carried out in HS Codes until now are HS 1992, HS 1996, HS 2002, HS 2007, HS 2012, HS 2017 and HS 2022.

III. Analysis

1.8 During the course of examination of the subject, while deposing before the Committee, the representatives of the Ministry of Electronics and Information Technology (MeitY) submitted that:

“As per the agreement, there is a review mechanism and periodic meetings to review the product coverage in the light of new technological developments. This is what is frequently happening. In addition, every five years, the World Customs Organisation changes the harmonised system classification, the HS nomenclature. Usually, the attachments are expected to be modified to incorporate additional items. So, this incorporation of additional items is important because certain other items came up subsequently. We have gone ahead and levied duties because we believe that we made a mistake. By error, certain commodities or certain goods were added, which is why we have gone ahead and levied. That is a matter of the WTO dispute. So, that is going on parallelly. Then, it also provides for a review on non-tariff barriers, but there are no binding commitments there. There have been some non-tariff barriers in the form of Compulsory Registration Orders (CROs) within MeitY and in the form of the import management system – technically speaking we do not call it non-tariff barriers, more a monitoring system – for certain categories of IT hardware import. So, those have been brought in. We believe that those are WTO-compliant. Those are intended to support this entire mechanism. Unfortunately, in the agreement itself, there is no specific exit clause. So, this is legally the current provision as far as this agreement is concerned. India joined the ITA on 25th of March, 1997”.

1.9 When asked to provide details of Most Favoured Nation (MFN) basis of tariffs elimination, Zero (customs) duty clause for IT hardware/electronics products along with impact of zero-duty imports under the ITA on domestic electronics manufacturers in India, MeitY stated as under:

“MFN principle within the WTO

- The MFN principle within the WTO mandates that member countries treat all other WTO members equally in terms of trade benefits, such as tariffs and market access. This means that if a country offers a specific trade benefit to one member, it must extend the same benefit to all other members. The MFN principle aims to prevent discrimination and promote a level playing field in international trade.
- The ITA requires each participant to eliminate and bind customs and other duties at zero for all products specified in the Agreement. Since the ITA concessions are included in the participants' WTO schedules of concessions, the tariff elimination is implemented on MFN basis.

Impact of zero-duty imports under the ITA on domestic electronics manufacturers in India:

- The zero-duty imports under the ITA impacted India's domestic electronics manufacturing sector by increasing import dependence and hindering local growth. The elimination of tariffs made imported electronics cheaper, benefiting consumers but making it difficult for Indian manufacturers to compete, especially against established players from countries like China and South Korea due to lack of technology, skill etc. This led to a surge in imports and a widening trade deficit. Additionally, the lack of tariff protection discouraged investment in domestic manufacturing, resulting in limited technology transfer and minimal development of a local component ecosystem. As a result, much of India's electronics industry remained focussed on assembling imported parts rather than full-scale manufacturing, limiting value addition and employment generation”.

1.10 On being asked to provide brief chronological details of ITA product expansion negotiations in WTO since its inception and new IT products that have been added in the tariffs elimination list during recent years and kinds of non-tariff barriers which are being considered for elimination, MeitY replied:

- “The ITA 1.0 was concluded in December, 1996 at the WTO's Singapore Ministerial Conference by 29 participants, committing to eliminate tariffs on a wide range of IT products. It entered into force in 1997, with the goal of covering 90% of global IT trade.
- India signed the ITA 1.0 in 1997 as per HS 1996 wherein 217 HS lines were covered on which duty was reduced to zero in phased manner.
- On December 16, 2015, ITA 2.0 was signed by over 50 WTO members to eliminate tariffs on additional 201 IT products, including advanced

semiconductors, GPS devices, medical equipment like MRI machines, and optical lenses.

- This expansion aimed to address new technological developments and facilitate global trade in emerging IT sectors.
- India is not a signatory to ITA-2.
- The HS codes are reviewed periodically after every 5 years; thus, the HS codes were revised in 2002, 2007 and so on. In 2002, there were not many changes in HS codes w.r.t. electronics sector but in 2007 there were major changes.
- The WTO formulated the HS schedule for the developing countries for transposition as per HS 2007 and a window of three month was given for comments and it was indicated that if no comments are received within this period, the India's schedule would be considered as ratified. The schedule was ratified on 12.5.2015. This lead to changes in India's schedule and many product lines were bound at zero duty.
- The ITA primarily focusses on tariff elimination; there is no provision for mandatory elimination of non-tariff barriers (NTBs)".

1.11 When the Committee wanted to know about the most contentious and unfavourable clauses in ITA for India and other developing countries, the Committee were apprised by MeitY as under:

- "ITA is a plurilateral agreement but is implemented as multilateral agreement. The ITA's comprehensive tariff elimination is the most contentious and unfavourable clauses in ITA. The scope of coverage is much wider and may cover future products and technologies also. The implementation of ITA is done through modification of WTO schedule. The modification of schedule as per Article XXVIII of the GATT 1994 is extremely difficult.
- The ITA does not provide a clear mechanism for renegotiating or withdrawing from specific tariff commitments, making it difficult for India to formally revise its obligations".

1.12 Replying to a query regarding the current level of MFN applied tariffs for the products under the ITA expansion, MeitY stated that:

"The MFN applied tariff for products covered under the ITA expansion is zero for signatory countries. Country-wise schedule is available at WTO Website".

CHAPTER-II

Impact of ITA on India – Electronics Manufacturing and Trade Balance

2.1 According to MeitY, the ITA has had a significant impact on India's electronics manufacturing sector since India signed it in 1997. While the ITA contributed to making electronic products more affordable for consumers and facilitated the import of advanced technologies, its effects on India's domestic Electronics Manufacturing have been mixed. Some of the key impacts are as enumerated below:

(i) Increased Import Dependence

- **Reduction in Tariffs:** One of the core aspects of the ITA was the elimination of tariffs on a wide range of IT products. While this benefitted consumers by reducing the cost of electronics like computers, smart phones, and semiconductors, it also made it difficult for India's domestic electronics manufacturing sector to compete with cheaper, imported products.
- **Growth of Imports:** As a result, India became heavily reliant on imports of electronic components and finished products, especially from countries like China, Taiwan, and South Korea. This led to increase in trade deficit in electronics sector.

(ii) Hindrance to Domestic Manufacturing

- **Weakening of Local Industry:** The reduced tariffs under ITA agreement and cheap imports promoted the imports and there was no attraction for the local manufacturers to scale up and invest in domestic production. Many Indian manufacturers struggled to compete against established global players, who had access to more advanced technology, capital, and economies of scale.
- **Limited Technology Transfer:** The free flow of IT products into India did not always result in significant technology transfer or capacity building in the domestic industry. This led to a situation where India was primarily an importer and consumer of electronics rather than a manufacturer.
- **Cyber security:** The globalized nature of IT products has also exposed systems to increased risks, including data breaches and cyber-attacks. While ITA has lowered barriers to technology access, it has also raised questions about global cyber security standards and data protection.

(iii) Delay in Building an Electronics Manufacturing Ecosystem

- **Lack of Component Ecosystem:** While India saw a boom in IT services and software, its hardware and component manufacturing ecosystem remained underdeveloped. Unlike countries like China, which used tariffs and policies to build a strong domestic manufacturing base, India lacked the infrastructure and policy support needed to establish a robust ecosystem for electronics manufacturing.

- **Assembly vs. Manufacturing:** Much of the electronics manufacturing that did occur in India was limited to the assembly of imported components rather than full-fledged production. This limited the value-addition and employment opportunities that the sector could generate.

2.2 The Ministry of Electronics and Information Technology also stated that the ITA has played a transformative role in shaping global trade in information technology products since its inception in 1996. As we move into a new Age marked by advancements in AI, 5G, block chain, and other emerging technologies, the impact of ITA is still evolving. As submitted by MeitY, some of the key ways the ITA is impacting and continues to influence the global tech landscape are as follows:

- **Trade Liberalization:** The ITA significantly reduced tariffs on a wide range of IT products such as semiconductors, computers, software, and telecommunications equipment. The zero-duty regime has led to:
 - Increased global trade in IT products, making them more accessible and affordable.
 - Growth of the digital economy as more businesses and consumers gained access to affordable technology.
 - A boost to global supply chains, fostering greater interdependence between countries producing and consuming IT goods.
- **Expansion of Tech Markets:** With tariff reductions, emerging markets gained easier access to advanced technologies, enabling:
 - Digital transformations in developing countries, helping them catch up with more advanced economies.
 - Growth in e-commerce, mobile banking, and digital education, which helped address some of the socio-economic challenges in less developed regions.
 - **AI and Automation:** The availability of more affordable computing power and sensors has accelerated AI research and adoption, making AI-driven technologies more accessible globally.
 - **5G and Connectivity:** Telecommunications equipment covered under the ITA has enabled faster deployment of 5G networks, revolutionizing industries like healthcare, manufacturing, and transportation.
 - **Internet of Things (IoT) Devices:** The ITA has facilitated the growth of IoT by lowering costs of sensors, networking hardware, and other essential components, leading to a more connected world.
- **Encouraging Innovation and Competition: The reduction in cost of ITA goods has stimulated:**
 - Innovation as companies reinvest savings from reduced tariffs into R&D, fostering the development of new technologies like AI, IoT, and

cloud computing.

- Global competition, as companies from all over the world could more easily enter new markets, leading to increased product diversity and efficiency.

- **Environmental and Sustainability Impacts**

- **E-waste:** The increased consumption of IT products, partly driven by the ITA, has contributed to the global e-waste challenge. However, the ITA has also opened markets for green technologies such as energy-efficient devices and recycling equipment.
- **Smart Cities:** The availability of low-cost technologies has fuelled smart city initiatives that focus on sustainability, energy efficiency, and resource management, often leveraging ITA-enabled devices like sensors and connectivity tools.

- **Expansion of ITA**

- With the rapid development of new technologies, there is a push to expand the ITA to cover new-generation technologies like AI chips, autonomous vehicles, and 3D printing equipment, ensuring the agreement remains relevant in the 21st century.
- **Expansion into services and digital goods:** As the global economy becomes more service-oriented, many countries are considering extending the ITA's principles to cover digital trade and services, such as cloud computing or data analytics, to reflect the realities of the modern economy.

2.3 When asked to furnish the details regarding how the Information Technology Agreement had impacted the growth of India's IT, electronics and hardware manufacturing sector and in what ways the ITA had contributed to the increase in IT product imports in India, the MeitY in its written reply has furnished the following:

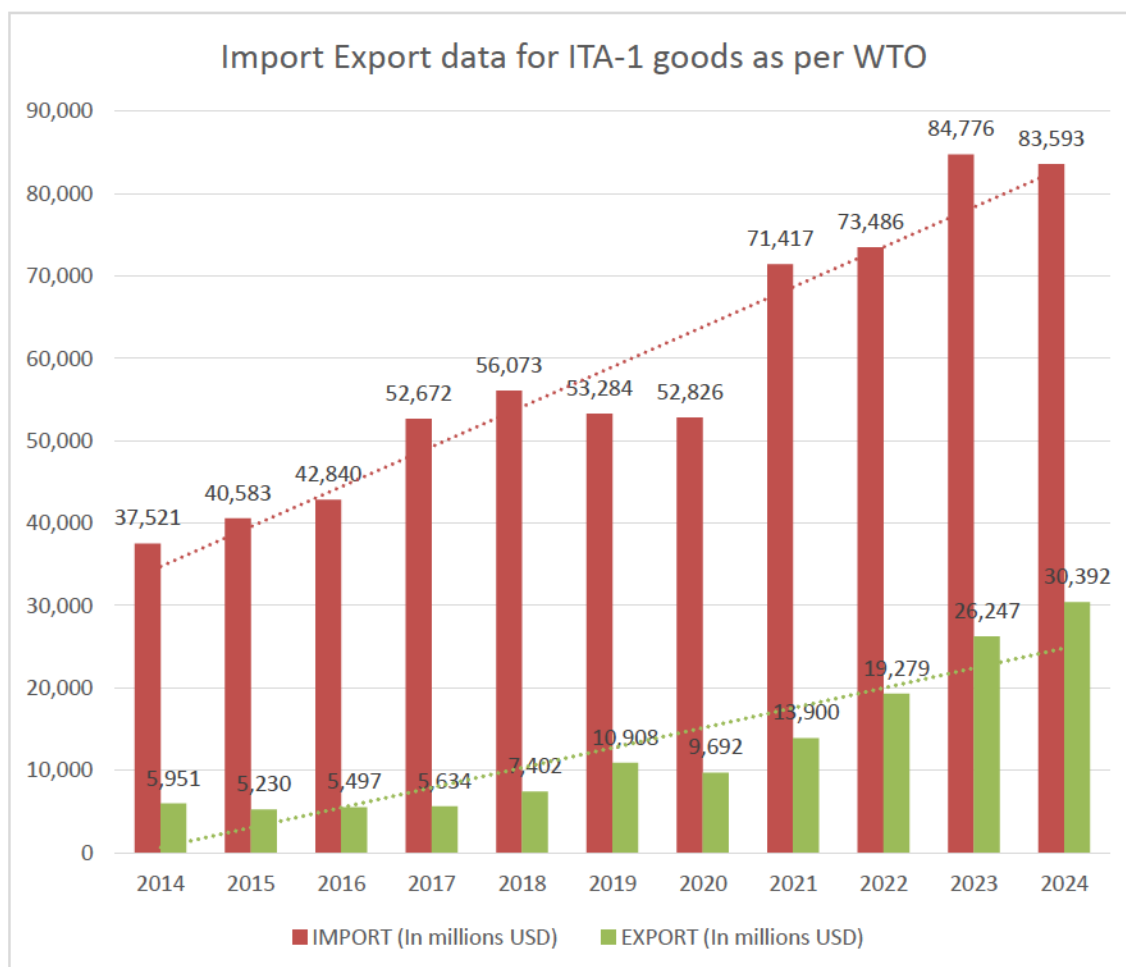
“The ITA has had a mixed impact on India's IT and electronics sectors. While it lowered costs and supported the growth of the IT services industry by enabling duty-free imports of key equipment, it had a negative impact on the domestic hardware manufacturing. Although the ITA opened markets for export of electronics and IT goods, India could not reap the benefits due to limited technology, skills, scale of production etc. The elimination of tariffs made imports cheaper and more attractive, discouraging local production and increasing reliance on countries like China and South Korea. The broad and open-ended product coverage under the ITA also limited India's ability to protect emerging technologies, contributing to a growing trade deficit and a weak electronics manufacturing ecosystem.

- The details are given in **Annexure-I**”.

2.4 The Committee sought to know the advantages India got as a member in ITA and whether it had gained in IT hardware/electronics exports during the last 10 years.

Further, the Committee also wanted to know the impact of the ITA on India's trade balance in the IT hardware/electronics manufacturing sector and the Indian share in Global IT products trade. In reply, the following information was provided by MeitY:

- "India's membership in the ITA has offered some benefits, such as duty-free access to global markets, increased FDI, international product standards and quality. Further, due to reduced cost of ICT goods, India excelled in software and IT-enabled services (ITES).
- According to the WTO Report in 1996, India was not listed on the list of major exporters of ITA products, however, in 2015; it registered a 0.1% share in the list of major exporters of ITA products.
- The elimination of tariffs led to a surge in imports, while domestic manufacturing, especially in hardware and components, struggled to grow. Overall, the ITA's impact on India's electronics trade balance has been largely unfavourable.
- The Import export trend of ITA goods as per data available at WTO website indicates that the trade deficit is increasing.
- Since 2014, exports have grown at a Compound Annual Growth Rate (CAGR) of approx. 19% and the imports have grown at a slower rate of approx. 8%".



2.5 Further, regarding value addition in the electronics sector in India, the representatives of MeitY while deposing before the Committee submitted that:

“Currently, the value addition in the electronics sector, in India, is between 18 to 20 per cent. After the implementation of the component ecosystem scheme, our objective is that we want to double it to about 35 to 40 per cent, which we think is a good thing because we will still continue to import certain components. We cannot get away. But it will come from trusted sources because that is the way the trade works. And more importantly, the components that we make in the country, we need to make it competitively. So, they will be exported as components also. In addition to supplying to Indian final goods assembly, they will also be exported as components. So, this is basically the design of the scheme for two reasons. One reason is that it is a part of the global value chain and we want to be a part of it, and secondly, what we manufacture as components needs to be internationally competitive, and therefore, they will be exported as components”.

2.6 The Department of Commerce while deposing before the Committee about the global value chain submitted as follows:

“The global production was not confined to production in one country, except for agriculture products, which are in WTO parlance. When we negotiate, we use the term wholly-obtained, which means that you will give a concession to a country only if that agricultural produce is produced in that country. For example, if wheat is produced in India, then, only that concession will be given for wheat to India, or if corn is produced in US, then that concession will only be given to US. The concept was wholly-obtained. That was a concept of an agrarian sector. As we move towards industrial sector, and as industrial sector broke down in MNCs and the global value chains, in fact, there is a WTO report which says that 70 per cent of the global trade is now through MNCs, and most of it is intra-firm trade. So, whatever is accounted for in the national account’s statistics or the international statistics, that is not the trade which is happening between the countries, but in fact, it is happening between the companies. So, that is how the statistics, export imports, as rightly pointed out, that if you are importing components, it will be import, but that company has to import those, because if they have to do assembly, then they have to import that. That will be shown in your import statistics.

The second phenomenon of things moving into a global value chain, and as rightly mentioned that if you look at these value chains, a large number of countries are involved, and products are moving from one border to another”.

2.7 The Ministry of Electronics and Information Technology while replying on the negatives and disadvantages of India’s membership in ITA and to a question of India losing out to other countries due to binding provisions of ITA, submitted that:

“India’s membership in the ITA has brought certain disadvantages, primarily due to its binding zero-tariff commitments leaving India as a net importer with limited gains in domestic capability or global competitiveness. These have led to a surge in cheap IT imports, especially from China and ASEAN countries, widening India’s electronics trade deficit and undercutting domestic manufacturers. At the

time of joining ITA-1, India's electronics sector was underdeveloped, and the removal of tariffs prematurely exposed it to global competition, stifling growth. Unlike countries such as China or Vietnam, which joined after building stronger industrial bases, India lacked the technology, skills, scale, infrastructure, and policy flexibility to benefit from the agreement. Moreover, the ITA incentivized low-value assembly over full-scale manufacturing, limiting domestic value addition and technological advancement. India also experienced revenue loss by eliminating tariffs on over 200 product lines”.

2.8 When asked about the countries which gained maximum from ITA in terms of volume of trade and IT exports, MeitY replied:

“According to the WTO Report, China is the major gainer as it acquired the top position and had 33% of global share in the export of ITA products during the period of 1996 to 2015 while the share of the EU and USA shrank and became 16% and 9% respectively.

Apart from China, the other primary beneficiaries include South Korea, Taiwan, Singapore, Vietnam etc.

2.9 On being questioned to enumerate reasons with respect to Chinese success, it was replied by MeitY that:

- Timing: While China was already benefitting from the ITA as a member of the WTO since 2001, its formal accession to the ITA itself took place in 2003.
- Manufacturing Scale: China developed robust electronics manufacturing ecosystem, specializing in semiconductors, computers, and telecom equipment, before joining ITA in 2001. This allowed it to exploit tariff-free access to global markets effectively.
- Global Value Chains: China integrated deeply into Global Value Chains (GVCs), producing both components (e.g., ICs, PCBs) and finished goods (e.g., smart phones, laptops). Its role as the “world’s factory” enabled high export volumes.
- Policy Support: Government subsidies, special economic zones, and investments in R&D enhanced competitiveness.
- Cost Advantage: Low labour costs and economies of scale allowed China to dominate price-sensitive markets, outcompeting countries like India”.

Further, China joined ITA six years after India from a position of strength as the global export factory in electronics manufacturing. China’s electronics industry had benefitted substantially from ITA-1. Extraordinary investments, subsidies by Chinese government and predatory pricing by Chinese companies most verticals supported the momentum.

2.10 While examining the subject, the Committee inquired about the details with regard to signatory countries of ITA 1.0 who are reconsidering their decision and are yet to take a decision to sign ITA 2.0. and the primary reasons for such reconsideration,

MeitY furnished the following in reply:

- “It's difficult to definitively pinpoint signatory countries of ITA 1.0 that are specifically reconsidering their decision and haven't yet signed ITA 2.0. The ITA 2.0 expansion was agreed upon in 2015 at the Nairobi Ministerial Conference by 24 signatory countries, the list includes 54 countries as on date”.

CHAPTER-III

I. ITA 2.0 and its Impact

Genesis of ITA 2.0

3.1 According to Department of Commerce, in the light of new technological developments, some WTO members considered that the current product coverage of the ITA-1 should be expanded. At the Nairobi Ministerial Conference in December 2015, ITA -2 was adopted to eliminate tariffs on 201 additional IT products, covering \$1.3 trillion in annual trade. At present India is not a signatory of ITA 2.0.

3.2 The annual trade in these 201 products is valued at over \$1.3 trillion per year, and accounts for approximately 7% of total global trade today. The new accord covers new generation semi-conductors, semi-conductor manufacturing equipment, optical lenses, GPS navigation equipment, and medical equipment such as magnetic resonance imaging products and ultra-sonic scanning apparatus. The use of IT technologies, increased productivity and spurred the creation of IT-enabled industries and services by lowering the cost of communication networks and IT equipment and these have been achieved through the agreements.

II. ITA 1.0 vis-à-vis ITA 2.0

3.3 When the Committee asked the Ministry of Electronics and Information Technology (MeitY) to furnish the details of ITA 1.0 and ITA 2.0 objectives and declarations, WTO schedules of concessions, elimination of tariffs and non-tariff barriers and current status of implementation, MeitY provided the following information:

“WTO’s Information Technology Agreement (ITA) is a plurilateral trade deal under the WTO aimed at eliminating tariffs on a broad range of IT products to boost global tech trade. It began as ITA 1.0, launched through the 1996 Ministerial Declaration in Singapore, and was later expanded as ITA 2.0 in 2015.

ITA 1.0

- Initially signed by 29 WTO members, now covering over 80 participants including India, it mandates zero tariffs on items like computers, semiconductors, telecom equipment, software, and scientific instruments.
- The agreement is plurilateral but applied on an MFN basis, meaning all WTO members benefit, even if they haven’t signed it.
- Product coverage includes items listed under the 1996 Harmonized System (HS) codes in Attachments A and B of the declaration.

ITA 2.0

- India is not a signatory to ITA 2.0.
- Adopted in 2015 by 53 members (excluding India), ITA 2.0 expanded the list by 201 products including semiconductors, medical electronics, and testing equipment.
- Implementation involved updating tariff schedules with a three-year staging period (until 2019 for initial members).

Objectives

- Eliminate tariffs on IT goods.
- Boost global trade and innovation in the IT sector.
- Facilitate access to technology and encourage investment in high-tech industries.

3.4 MeitY was asked to explain in detail about the Information Technology Agreement in the New Age and the position of India in comparison to other countries in respect of World Trade Organisation (WTO) with special focus on turnaround in trade since ITA as compared to pre-ITA period. The following submissions were made by the Ministry:

“The WTO has published a detailed report entitled “20 years of Information Technology Agreement” wherein global scenario of pre and post ITA trade in ITA products (export and import respectively) is reflected. Inter-alia, it indicates that:

- ITA products export scenario: The top three exporters of ITA products in 1996 were the EU, USA, and Japan enjoying a share of 31%, 20%, and 15% respectively while China had only a 2% share. However, in 2015, China acquired the top position and had 33% while the share of the EU and USA shrank and became 16% and 9% respectively. It reveals that the major beneficiary of the ITA is China. In 2015, India’s share in world export is 0.1%.
- ITA products import scenario: The top three importers of ITA products in 1996 were the EU, USA, and Japan having share of 34%, 22%, and 7% respectively while China had only 2% share. However, in 2015, China acquired the top position and had 23% while the share of the EU and USA shrank and became 20% and 15% respectively. It reveals that import of ITA products was also drastically increased in China. In 2015, India’s share in world import was 2%”.

3.5 MeitY was further queried to explain whether the global trade in ITA goods became more competitive after ITA as compared to the pre ITA period with significant change in the role of developed *vis-a-vis* developing countries and strengthening of global production network by increased participation of developing countries. To this, the Committee were apprised by the Ministry as under:

“Yes. The WTO report indicates a major change in the role of developed *vis-à-vis* developing countries. China is one of the top beneficiaries among the

developing countries. Apart from China, Vietnam, Taiwan, and South Korea like countries have taken advantage of the ITA”.

3.6 Dwelling further on the same issue, the Committee catechized the Ministry whether there had been a significant increase in the affordability of IT goods resulting from a decline in price during the post-ITA period as compared to the pre-ITA period. To this, the reply was as under:

“Yes, ITA has been associated with increased affordability of IT goods due to price declines. The ITA, which eliminates tariffs on certain ICT products, has contributed to both a reduction in prices and an increase in trade, leading to wider access to technology for consumers and businesses”.

3.7 Since ITA covers a large number of high technology products, including computers, telecommunication equipment, semiconductors, semiconductor manufacturing and testing equipment, software, scientific instruments, as well as most of the parts and accessories of these products, MeitY was queried if it proposed to include other items under this agreement. To this pointed query, MeitY answered categorically that:

“No. The Ministry is not considering inclusion of other items to the Agreement”.

3.8 The Committee noted that due to ITA, India became heavily reliant on imports of electronic components and finished products, especially from countries like China, Taiwan, and South Korea and this had led to increase in trade deficit in electronics sector. The Committee wished to know how MeitY viewed this phenomenon and what steps were being taken by them to overcome this dependency. In its reply, the Ministry submitted the following:

- “Theoretically, the concept of ITA seems to be quite attractive but it went against the Indian domestic manufacturing of ICT products which is still at a nascent stage. China had protected its electronics industry and created a robust component ecosystem before joining the ITA. On the other hand, similar steps were not taken by India, and as a result, the domestic electronic industry of India is almost wiped out.
- The Ministry has taken several initiatives to promote domestic manufacturing in the electronics sector **[Ref. Annexure-II]**”.

3.9 Observing that the availability of more affordable computing power and sensors had accelerated AI research and adoption, making AI-driven technologies more accessible globally due to technology transfer under ITA, the Committee wanted to know the course of action being devised by MeitY to meet the challenges posed by fast expansion of AI and Automation. To this, the Ministry replied:

- “Artificial Intelligence (AI) and automation are the future of the industry. However, it may create a mixed impact. The development of AI technology is creating new markets and employment opportunities in vital industries, including transportation, health, education, and the environment. According to experts, the rapidly increasing improvements in AI will continue and widely considered to be game-changers in a variety of industries. This technological development may also

pose novel kinds of challenges, like high cost of implementation, no creativity, unemployment, etc.

- The Ministry has taken initiative in this arena and has started the IndiaAI Mission. The Cabinet has approved over Rs 10,300 Crore for IndiaAI Mission on 07.03.2024. It will Empower AI Startups and Expand Compute Infrastructure Access”.

3.10 When asked to comment on growth in e-commerce, mobile banking, and digital education, which helped address some of the socio-economic challenges in less developed regions due to tariff reduction under ITA, the Ministry of Electronics and Information Technology have made the following submission:

“Tariff reduction due to ITA-1 has resulted in widespread availability of low-cost smart phones, laptops, and internet-enabled devices. These have enabled small businesses to access broader markets through e-commerce platforms, promoting rural entrepreneurship and employment. Mobile banking services have expanded financial inclusion by bringing digital payments and Government benefits to remote areas, reducing dependence on cash and informal financial systems. Similarly, digital education initiatives have helped bridge the learning gap by providing students in underserved regions with access to online resources. Together, these developments have helped address socioeconomic challenges and support inclusive growth by leveraging the opportunities created through ITA-led technology access.

- a) In order to improve the digital literacy rate, especially in rural India, the Government of India implemented a scheme titled “Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)” to usher in digital literacy in rural India by covering 6 crore rural households (one person per household) across the country.
- b) Unified Payment Interface (UPI) is the leading digital payment platform. National Payments Corporation of India (NPCI) has rolled out innovative UPI features such as UPI 123 Pay and LiteX which are targeted to promote UPI adoption in areas with low internet connectivity”.

3.11 The Committee wanted to know if ITA had opened the doors of new markets to the private players or it had cornered the micro and small industries from the market. The Ministry of Electronics and Information Technology in its reply has submitted that:

“ITA has opened access to global markets by reducing tariffs, lowering the cost of IT goods, and enhancing the competitiveness of MSMEs. However, on the other hand, ITA has also intensified competition by allowing a surge of cheaper imports, which has posed serious challenges to domestic manufacturers, especially smaller players. Some of the positive and negative impacts are as follows:

- Positive impacts include reduced costs, improved access to technology, enhanced competitiveness, global integration, innovation and productivity, etc. For example, Major private players benefited from easier access to high-quality, tariff-free hardware, improving competitiveness in the global IT services market. ITA enabled the import of advanced components (semiconductors, servers, routers, etc.) at zero tariffs, helping startups and large private firms to develop high-tech products.

- Negative impacts include increased competition, disruptions in domestic manufacturing, dependence on imports, etc. India's electronics hardware manufacturers, especially MSMEs, couldn't compete with zero-duty imports. Example: Domestic manufacturers of motherboards, printed circuit boards (PCBs), and power supplies were unable to compete with cheaper imports and many shut down”.

3.12 During the course of examination, it was seen that unlike ITA-1, ITA-2 included products without established six-digit HS classifications, making it difficult for developing countries to anticipate future trade implications. In view of this, the Committee sought how the Ministry viewed this development and what was the way forward to counter it. The Ministry of Electronics and Information Technology has submitted the following:

- “The Products Coverage under ITA 2.0 is similar to that of ITA 1.0 by enlisting a list of 6-digit HS codes in Attachment A and also a list of products as Attachment B, irrespective of HS codes. The products in Attachment B will be covered under the Agreement wherever they will be classified. The products covered under Attachment B create ambiguity as the HS codes are not clearly defined.
- India has not signed ITA-2”.

3.13 The Committee found that due to the zero tariffs under ITA-1, India became an easy target for low-cost electronics imports, especially from China – a country far ahead in its electronics manufacturing industry. It was also inferred that the existing domestic producers may become domestic assemblers and traders in the IT products. On being beseeched to comment, MeitY has stated:

“The Ministry has taken several initiatives to promote domestic manufacturing [Ref. Annexure-II]. Since the electronics industry is at a nascent stage, a well-structured strategy is being adopted, which includes (i) starting with the assembly of finished goods; (ii) intensify the assembly with domestic value addition; (iii) cultivate domestic component ecosystem; (iv) be self-sufficient in raw materials; and (v) finally move towards manufacturing of end-to-end product. Accordingly, the schemes/programs are being crafted and implemented. The impact of the strategy is now become visible [Ref. Annexure-III]”.

3.14 When queried to elaborate on India's ITA dispute in WTO and also provide details of ITA 2.0 w.r.t signatory Member States, new products coverage, review mechanism and exit clause, MeitY replied:

“WTO Dispute for ICT products

- The Panel on India – Tariffs on ICT Goods (DS582/ DS 584 / DS 588) was established by the DSB on June 29, 2020, and composed on August 31, 2020.
- EU is the complainant in DS 582. At the same time, Japan is the complainant in DS 584 and Chinese Taipei in DS 588.

- The Panel circulated the final report to all WTO members on April 17, 2023. The report was not in favour of India.

The ITA-2 finalized in 2015, was signed by 54 WTO member countries, including major economies like the United States, China, European Union etc. ITA 2.0 covers a broader range of advanced ICT products, such as advanced semiconductors, GPS devices, medical equipment like MRI machines, optical lenses etc. There is review mechanism for product coverage in the light of technological developments, experience in applying the tariff concessions, or changes to the HS nomenclature. There is no specific exit clause in ITA -2”.

3.15 While furnishing the present status of disputes w.r.t. ICT products at WTO, MeitY has submitted that Department of Commerce provided the following information:

- “In DS582 (EU) - the EU included on the agenda of the DSB meeting on 07 December 2023 that they intend to seek for adoption of the Panel report. Hence India appealed against the Panel report on 08 December 2023.
- In *DS588 (Chinese Taipei) - Both countries have jointly decided and communicated their intention for deferment in the adoption of the Panel report till 26 April 2024. The DSB in its meeting on 18 December 2023 had accepted it.
- While in DS584 (Japan) - India appealed against the report in May 2023.
- Further, it is indicated that DoC is waiting further communication from the complainants. The Ministries/Departments are requested to provide their inputs/comments (if any)".

Note: *Presently India and Chinese Taipei are engaged in MAS (Mutually Agreeable Solutions) negotiation.

3.16 When inquired by the Committee to provide the import-export statistics of leading countries in ITA along with a comparative analysis of gains/losses made by India under ITA-1 in comparison to USA, China, Taiwan, South Korea, EU and other leading countries, MeitY in its written reply furnished the following information:

“Data available at [WTO Tariff & Trade Data | Analysis / Imports & exports pattern](#) for the period 2020 to 2024 has been compiled as depicted below:

Economy:	India	Source: Trade Data Monitor				
Trade:	Exports					

		2024	2023	2022	2021	2021
		% Share of Millions US \$30,392.28	% Share of Millions US \$26,247.09	% Share of Millions US \$19,278.71	% Share of Millions US \$13,899.63	% Share of Millions US \$9,692.47
1	World	100	100	100	100	100
2	United States of America	33.56	34.44	22.37	18.98	19.57
3	European Union	27.2	22.91	28.69	20.33	21.3
4	United Arab Emirates	9.67	12.51	14.46	16.86	14.78
5	United Kingdom	5.38	5.16	5.06	5.22	3.55
6	Russian Federation	2.91	1.29	0.71	3.14	2.84
7	China	2.31	2.42	3.09	6.85	6.16
8	Hong Kong, China	1.86	2.64	2.27	2.74	3.16
9	Saudi Arabia, Kingdom of	1.55	1.58	1.74	0.8	0.81
10	Mexico	1.42	1.42	0.91	0.66	0.75
11	Türkiye	1.28	1.59	0.72	0.95	1.52
12	Japan	1.16	0.73	1.5	1.88	0.64
13	Singapore	0.94	1.25	2.24	1.82	2.54
14	South Africa	0.74	1.11	1.49	1.54	1.64
15	Australia	0.72	1.11	0.82	0.87	1
16	Bangladesh	0.57	0.44	0.66	1.38	1.39
17	Israel	0.56	0.66	0.8	1.44	1.81
18	Korea, Republic of	0.55	0.31	0.45	0.47	0.78
19	Canada	0.54	0.71	0.68	0.42	0.5

						1.23
20	Viet Nam	0.52	0.48	0.55	1.24	
Economy:	India	Source: Trade Data Monitor				
Trade:	Imports					
Product:	ITA1					
		2024	2023	2022	2021	2020
		% Share of Millions US \$83,592.90	% Share of Millions US \$84,775.91	% Share of Millions US \$73,486.25	% Share of Millions US \$71,416.83	% Share of Millions US \$52,825.81
1	World	100	100	100	100	100
2	China	42.04	39.75	40.28	48.68	43.85
3	Hong Kong, China	11.09	12.38	11.9	14.49	16.1
4	European Union	8.35	12.02	10.28	5.72	6.11
5	Singapore	7.61	7.74	8.43	7.37	7.87
6	Chinese Taipei	7.44	5.57	5.44	3.15	2.87
7	Viet Nam	4.96	4.71	4.65	4.33	6.15
8	Korea, Republic of	4.89	4.27	5.1	3.79	3.95
9	United States of America	4.29	3.76	4	3.42	3.89
10	Malaysia	2.3	2.44	2.38	1.98	1.99
11	Japan	1.99	2.09	2.03	1.67	1.88
12	Thailand	1.58	1.5	1.74	1.15	1.29
13	United Kingdom	0.66	0.64	0.62	0.62	0.73
14	Mexico	0.6	0.64	0.47	0.32	0.62
15	Israel	0.51	0.56	0.57	0.63	0.85
16	Philippines	0.36	0.42	0.4	0.31	0.33
17	Switzerland	0.3	0.32	0.31	0.29	0.37
18	United Arab Emirates	0.28	0.22	0.56	0.9	0.42
19	Indonesia	0.21	0.23	0.21	0.17	0.16
20	Canada	0.17	0.23	0.14	0.12	0.14

3.17 Detailed examination of the subject revealed that with ITA, cheap as well as duty-free import of components had helped Indian companies to source components at cheaper cost, which made exports more profitable/competitive. In order to substantiate the fact, the Committee wanted to know how Indian domestic market would be affected and how affordable would be our exports, if tariffs were levied on it. MeitY replied:

“The key ICT components at cheaper or duty-free rates significantly reduce production costs and make exports more competitive. However, if tariffs were imposed on these components, it would raise production costs, making Indian goods more expensive both domestically and internationally. This would reduce the competitiveness of Indian exports, especially in price-sensitive markets, and could diminish India's market share”.

3.18 On being ascertained about the extent the ITA had hindered India's ability to impose tariffs for protecting its emerging domestic IT industries and how the ITA had influenced India's ability to adopt policies for self-reliance in technology production, MeitY has outlined as:

“Some of the major hindrances emerged after signing ITA and its influence on India's ability to adopt policies for self-reliance in technology production are as follows:

- By signing the original ITA in 1997, India committed to eliminating tariffs on a wide range of IT and electronics products. This included computers, semiconductors, telecom equipment, and other high-tech goods. This commitment is binding under the WTO, meaning India cannot reintroduce tariffs on these items without violating its international obligations.
- While advanced economies benefitted from liberalized access to Indian markets, Indian firms still in their infancy had to compete against large, well-established global players.
- Tariff barriers often play a key role in import substitution strategies, which are central to self-reliance. Under the ITA, India cannot impose duties even when a domestic alternative is available.
- Further, due to MFN commitments, India cannot apply discriminatory tariffs on imported electronics and IT products, limiting the effectiveness of these initiatives”.

3.19 When the Committee desired to know how successfully India had put forward its point through in WTO w.r.t. ITA for preserving the policy flexibility of the Government to support its domestic producers to the maximum possible extent and what institutional or legal constraints India had encountered in renegotiating or reforming its commitments under the ITA, the Ministry has made the following submission:

- “The ITA does not provide a clear mechanism for renegotiating or withdrawing from specific tariff commitments, making it difficult for India to formally revise its obligations. However, India has filed rectification request as per Article XXVIII of GATT to modify the binding commitments under schedule XII.
- EU, Chinese Taipei and Japan has filed dispute in WTO against India's imposition of tariff on certain ICT goods. The decision of WTO Dispute Settlement Body (DSB) is not in favour of India. However, India has filed the Appeal against the decision of WTO Dispute Settlement Body (DSB). While WTO members can

renegotiate bound tariffs under GATT Article XXVIII, this is a complex, time-consuming process and is rarely used for plurilateral agreements like the ITA”.

3.20 On the issue of imposition of Basic Customs Duty (BCD), the following was submitted by MeitY:

“The meeting of the Inter-Ministerial Committee (IMC) comprising of member from MeitY, DoT, DoC and DoR was held on 03.05.2017 in MeitY to review and evolve a harmonized view on imposition of Basic Custom Duty (BCD) on electronic goods covered under ITA-1. Based on the detailed analysis, it was concluded that cellular mobile phones were not covered under the ITA-1 of WTO and the IMC recommended imposition of BCD of 15% on cellular mobile phones and parts thereof (presently covered under HS 85171210, HS 85171290 & HS 851770), in accordance with the PMP (Phased Manufacturing Programme) notified by MeitY. Accordingly, BCD was imposed on certain IT products and parts thereof”.

3.21 While examining the subject, the Committee found that mobile phones were not included in ITA-1 and despite this the same were imported at zero duty for years. Even though India’s decision in 2018 to impose 20% duty on import of mobile phones resulted in increase of domestic production, it led to international legal disputes and economic losses. With this, India’s mobile production reached three lakh crores and exports reached about one lakh crore. In view of the above facts, the Committee wanted to know why they were allowed to be imported at zero duty for so many years and whether the Ministry had sought any kind of clarification or amendment from the WTO in this regard. Details of initiatives currently being taken by MeitY to protect and encourage mobile manufacturing in India were also sought for. Accordingly, MeitY submitted their reply as under:

- “Mobile phones existed in 1996. However, it was not covered under the specific HS code (8525.20) agreed for zero duty treatment under the ITA. It was supposed to be classified under tariff item 8543.89 of the HS1996, which covers "other" products falling under heading 8543, which covers "electrical machines and apparatus, having individual functions, not specified or included elsewhere in this Chapter which was not covered under zero duty treatment.

The Ministry has initiated Phased Manufacturing Programme (PMP) and Production Linked Incentives specifically for Mobile phones. Further, the initiatives taken by the Ministry to encourage the manufacturing of mobile and other ICT products is given in **Annexure-II**”.

3.22 Examining further, the Committee wanted to know the views of MeitY about data localization and permanent moratorium on digital goods and services imposed by USA. In response, MeitY stated that:

“Cross-Border Data Flows and Data Localization:

India has enacted a Personal Data Protection law, the Digital Personal Data Protection (DPDP) Act of 2023. The rules for implementing the DPDP Act are

under development. The law states that personal data can flow freely across borders unless notified otherwise by the Central Government [Section 16]. At the same time, the DPDP -2023 Act also states that nothing contained in the Act shall restrict the applicability of any law for the time being in force in India that provides for a higher degree of protection for or restriction on transfer of personal data by a Data Fiduciary outside India in relation to any personal data or Data Fiduciary or class thereof.

Furthermore, there are existing sectoral laws (RBI circular on payment system related to be stored only within India, Unified Access License for Telecom Service Providers requires local storage and local processing of subscriber information, Cloud computing initiative Meghraj impanels providers that have physical and virtual hardware only in India, etc.).

Customs Duty on Electronic Transmissions:

At present, the WTO decision has put a temporary moratorium on imposing customs duties on electronic transmissions. This decision is renewed every two years at the Ministerial level.

The meaning and scope of electronic transmissions are not established yet. Developed countries propose a permanent moratorium (i.e., no customs duties on e-transmissions ever)".

3.23 On being asked to provide the current status of India's Carbon Border Adjustment Mechanism (CBAM) with respect to EU, the following submission was made by MeitY:

"India's relationship with the EU's Carbon Border Adjustment Mechanism (CBAM) is complex and fraught with concerns. The CBAM, which aims to level the playing field for EU producers by ensuring imported goods face similar carbon pricing as domestically produced goods, is viewed by India as a trade barrier and a potentially discriminatory measure. India argues that the CBAM could negatively impact its exports to the EU, particularly in sectors like steel and aluminium, and that it contradicts the principle of "common but differentiated responsibility" within international climate agreements. The EU, however, maintains that the CBAM is a WTO-compatible measure designed to prevent carbon leakage and encourage global decarbonisation".

3.24 On seeking a comprehensive list of all the Quality Control Orders (QCOs) that were applicable on electronics and IT imports into India alongwith its relevance and utility vis-à-vis ITA-1, MeitY furnished the following:

"The following regulations are applicable on electronic sector:

- Electronics and Information Technology Goods Requirement of Compulsory Registration) Order, 2021 notified by MeitY.

- Mandatory Testing and Certification of Telecom Equipment (MTCTE) notified by Department of Telecommunication”.

3.25 About the achievements made under Digital India Programme and timelines to meet the targets, MeitY submitted as under:

- **“Digital Public Infrastructure (DPI):** DPI approach is all about taking benefits of digital technologies in delivering public as well as private services in equitable manner to all including urban and rural areas. DPI, such as Aadhaar, DigiLocker, Unified Payments Interface(UPI), Digital Infrastructure for Knowledge Sharing (DIKSHA), E-Sanjeevani, Government e-Marketplace (GeM), etc, are available and accessible to all without any discrimination.
- **Pradhan Mantri Gramin Digital Saksharta Abhiyaan (PMGDISHA):** In order to improve the digital literacy rate, especially in rural India, the Government of India implemented a scheme titled “Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)” to usher in digital literacy in rural India by covering 6 crore rural households (one person per household) across the country. As on 31st March 2024, as against a total target of covering 6 crore beneficiaries, more than 7.35 crore candidates were enrolled and 6.39 crore were trained, out of which 4.78 crore candidates were certified under the PMGDISHA Scheme across the country. The training & certification under the PMGDISHA Scheme has been officially concluded on 31.03.2024.
- **National Knowledge Network:** National Knowledge Network (‘NKN’) carries the digital-traffic of National/state Data Centres (NDCs/SDCs), State-Wide Area Networks (SWANs) and provides connectivity to various Digital India initiatives. It also carries digital-traffic of various G2G (Government to Government) and G2C (Government to Citizen) services. NKN also inter-connects all knowledge institutions across the country through high-speed data communication network to encourage sharing of resources and collaborative research. So far, 1,810 links to institutions had been commissioned and made operational under NKN.
- **BHASHINI:** BHASHINI aims to transcend language barriers, ensuring that every citizen can effortlessly access digital services in their own language. Using voice as a medium, BHASHINI has the potential to bridge language as well as the digital divide. Launched by Honourable Prime Minister in July 2022 under the National Language Technology Mission, BHASHINI aims to provide technology translation services in 22 scheduled Indian languages.
- **Aadhaar:** Aadhaar is the world’s largest digital identity programme that provides biometric and demographic-based unique digital identity; which can be authenticated anytime, from anywhere and also eliminates duplicate and fake identities. As on date, 141.88 Crore Aadhaar numbers have been generated.
- **Common Services Centres – CSCs** are offering Government and business services in digital mode in rural areas through Village Level Entrepreneurs (VLEs). Over 800

services are being delivered through CSCs, including Government services, financial services and services related to Aadhaar, various social welfare schemes, education, tele-medicine, travel bookings and utility payments. So far, 5.72 lakh CSCs are functional across the country (rural + urban), out of which 4.51 lakh CSCs are functional at the Gram Panchayat(rural) level.

- **DigiLocker:** It is a platform for issuance and verification of documents & certificates digitally. It has facilitated more than 51.49 crore users and made available 943.36 crore issued documents. Several fintech companies, working on banking and financial sector, are using DigiLocker for easy onboarding of users.
- **Unified Mobile App for New-Age Governance (UMANG):** UMANG is unified platform for all Indian Citizens to access pan India e-Gov services ranging from Central to Local Government bodies and other citizen centric services. Currently, 2,132 services from 209 Central/State/UT Departments have been on-boarded on UMANG.
- **myScheme:** myScheme is a National Platform that aims to offer one-stop search and discovery of the Government schemes. The platform helps the citizens to find the right Government schemes for them. It also guides on how to apply for different Government schemes. So far, there are a total of 3,400 schemes published out of which Central government schemes are 540 whereas State/UT Government schemes are 2,860.
- **e-Sign:** e-Sign service facilitates instant signing of forms/documents online by citizens in a legally acceptable form. The services are being leveraged by various applications using OTP based authentication services of UIDAI. More than 94.90 Crore e-Sign issued by all e-Sign service Providers (ESPs).
- **MyGov:** It is a citizen engagement platform that is developed to facilitate participatory governance. Presently, over 3.64+ crore users are registered with MyGov, participating in various activities hosted on MyGov platform.
- **MeriPehchaan – National Single Sign-on (NSSO)** platform called MeriPehchaan has been launched in July 2022 to facilitate / provide citizens ease of access to Government portals. Currently 13,395 services of various Ministries/States have been integrated with NSSO.

In addition, citizens across the country have also been enabled to access e-services under various initiatives, such as National scholarship Portal, e-Hospital etc.

Further, Digital India has set timelines and phased targets. For instance, PMGDISHA has achieved the target and the training & certification under the PMGDISHA Scheme has been officially concluded on 31.03.2024. CSC has concluded on March 2024. The other initiatives are also planned in phased manner with specific aims/ targets”.

3.26 Global Value Chain

Global Value Chain (GVC) refers to the full range of activities that economic actors engage in to bring a product to market, and it refers to the interconnected series of activities involved in producing a good or service, where different stages occur across multiple countries. This includes activities like design, manufacturing, marketing, and distribution, all of which contribute value to the final product. In context of these facts mentioned above, MeitY was asked to explain the whole cycle of Global Value Chain in the context of high-end electronics and semiconductor products like mobiles, laptops, computers and chips etc. The Committee also wanted to know about the amount of value addition that was being done at various stages of productions across international borders and whether ITA had contributed successfully to global value chain addition. Further, the Committee also wanted to know about the countries which were major beneficiaries of the global value chain in Electronics manufacturing. In reply to the above, the MeitY stated that:

“The Global Value Chain refers to the entire process of designing, producing, assembling, and distributing a product, with each stage potentially occurring in different countries. In high-end electronics, this chain is highly fragmented and globally distributed. The chain begins with activities with the highest value addition e.g research, design, and software development and typically conducted in the developed nations. The manufacturing of core components like semiconductors, displays, and batteries are done in China South Korea Taiwan etc. Sub-assembly, module integration and Assembly, Testing, Marking, and Packaging (ATMP) are often carried out in Southeast Asian countries like Malaysia and Vietnam, India etc. The final stages, including branding, marketing, and distribution, managed mostly by the parent company e.g. Apple, Samsung etc. ITA has leveraged the GVC by providing zero duty treatment from components to end products. The Major Beneficiaries of Electronics GVC are China (Assembly hub, strong ecosystem, scale and labour), Taiwan (high-end chip manufacturing), South Korea (Components, displays etc.), USA (Dominates in design, IP, and software, High capture of profit margins), Vietnam & Malaysia (low-cost alternatives for assembly), Japan (precision equipment, sensors, high-tech materials)”.

CHAPTER-IV

Challenges and constraints posed by the ITA and Government's Initiatives

4.1 According to the Department of Commerce (Ministry of Commerce and Industry), due to ITA-1, some domestic electronics industry stagnated. Influx of duty-free imports stifled domestic production. It produced limited value addition and brought about high dependence on China and SE Asia. Zero tariffs made local manufacturing non-competitive. India missed the opportunity to build a robust electronics hardware base like China or Vietnam due to high imports. There was also a lack of scale and ecosystem development for components and semiconductors.

4.2 When the Committee sought explanation about the challenges faced by India due to the signing of ITA in developing a competitive domestic electronics/hardware industry, MeitY in its written submission has furnished the following details:

“Some of the major challenges are as follows:

- **Lack of Domestic Component Ecosystem:** The signing of the ITA has led to an influx of finished products while simultaneously reducing incentives for the development of a robust domestic component manufacturing ecosystem. Most of the critical components e.g. microchips, display panels, and integrated circuits are imported from countries like China, Taiwan, and South Korea, rather than being produced locally. India has faced difficulties in establishing its own indigenous semiconductor and component manufacturing capabilities, which is crucial for creating a self-reliant and competitive electronics industry.
- **Limited Protection for Domestic Manufacturers:** Local manufacturers are unable to charge competitive prices for their products because they face lower-priced imports at zero duty from economy countries. This has hindered the growth of domestic production capacity and innovation. The Trade Remedial Measures e.g. Anti-Dumping Duty, Safeguard Duties etc. are complex and time consuming.
- **Inadequate Focus on R&D and Innovation:** Domestic manufacturers in India have often struggled to invest in Research and Development (R&D) and innovation. While international companies may have invested significantly in R&D and have more advanced technologies, Indian companies face challenges in competing on technological innovation due to limited access to capital and lower technological capabilities. The focus has often been more on assembly and low-end manufacturing rather than on high-value, innovative products. The Indian market quickly flooded with imported IT goods, limiting space for local firms to scale or invest in R&D”.

4.3 Further, while deposing before the Committee about various incentive Schemes to boost Electronics Manufacture, the representatives of the Ministry of Electronics and Information Technology submitted as follows:

“The Design Linked Incentive Scheme is part of the India Semiconductor Mission. In the Design Linked Incentive Scheme, we have been having some issues. People have come to us with suggestions. So far, about 21 companies have taken advantage of it. But more companies want to come in. They have pointed out certain limitations. We are in the process of modifying the scheme in order to enable more companies to take advantage on the design space so that higher value addition takes place and again better-quality jobs are created. The other part what we are encouraging is also what are called Global Capability Centres (GCC) especially in the engineering R&D space because that creates a considerable employment of engineering R&D personnel, higher-end M Techs, PhDs, those kinds of people. It also creates a positive spill over in terms of when they quit multinational or other companies, set up start-ups and innovate. So, that is the other part. The employment in that sector is also rising considerably. In the latest budget, the hon. Finance Minister had announced that we will do a GCC Framework. Many States have come up with GCC policies of their own. The Ministry is currently engaged in preparing the Global Capability Centre Framework which will address part of the issue”.

4.4 Adding further, about component ecosystems and value chain, the Ministry of Electronics and Information Technology submitted as under:

“Coming to the other issue, given the tariff situation, whether India will become more expensive and whether they will abandon. That is always a risk because the assembly industry that way requires very little capital investment. So, it can move fairly quickly, which is why the component ecosystem. That is why we want to deepen the value chain because then we are more competitive in manufacturing and people do not stick here only because the labour is cheap. They are here because it is a competitive destination to manufacture, which is why the component ecosystem. The other point the hon. Chairperson has already answered that relative to some of our competitors, compared to China, compared to Indonesia, compared to Vietnam, who are three or four major competitors in the electronic space, we seem to be at a relative advantage on the tariffs regarding the US. Of course, as the Commerce Secretary already pointed out, we are in the process of negotiating our bilateral trade agreement. Hopefully, that should give us some certainty. Of course, we are in an uncertain phase right now. But what we are looking forward to very hopefully be that all of these issues get resolved moving forward, which we think would probably create an even bigger opportunity for India. So, that is the outlook and that is what we are planning for”.

4.5 MeitY while elaborating about the strategies for imports and import of components, also submitted before the Committee that:

“Then, about inputs and the import of components, I think what we are adopting is a much calibrated policy. We fully realise that as long as we are focussing on assembly, and as I said, in the component scheme, we are not focussing on all kinds of components. We are focussing on limited number. It is very strategic. We are focussing on two categories. One is where the value addition is likely to be higher. Therefore, we bring in more value addition. Where, as part of the materials, it is at least about four to five percent, and then it is worth focussing on. The second part is where we have, Indian industry has some kind of a presence and where they can scale up and adapt quickly, things like Printed Circuit Boards (PCBs) and so on, where we can scale up quickly. These are the two categories. Unlike the previous schemes, unlike the MCEPs, and SPECS, if you look at the list of what we have identified under the component ecosystem, it is very specific and very limited because we want to be strategic; we want to make an intervention where it matters. So, that is how it has been structured. Now, we will have to be very nuanced and calibrated regarding the policy on the taxation or rather tariffs on inputs. We are well aware of that. Currently you would have noticed, in the last budget also, most of the input tariffs have come down. But then we will slowly have those input which will get manufactured in India and in sufficient quantity. Those tariffs will have to go. That is something that we are clear about”.

4.6 On being ascertained about after India’s signing of ITA, what are the key regulatory and policy conflicts/constraints which have arisen between India’s industrial goals and ITA obligations and whether the Country’s commitment to the ITA constrained its autonomy in policy-making in the IT & electronics/ hardware manufacturing sector, the following submissions have been made by MeitY:

- “The inability to impose tariffs due to India’s commitment to ITA, has limited India’s capacity to pursue import substitution strategies, which are central to self-reliance efforts such as 'Make in India' and 'Atmanirbhar Bharat'.
- By agreeing to eliminate tariffs on a wide range of IT products, India gave up a key industrial policy tool protective tariffs that many countries historically used to nurture their domestic industries”.

4.7 Considering that the ITA with its wider product coverage had restricted /limited India’s flexibility to protect sensitive or strategic sectors, the Committee enquired whether it had impacted the capacity to incentivize indigenous production of IT & electronics goods through tariffs or subsidies. To this, the Ministry replied as:

“By signing the ITA in 1997, India agreed to eliminate tariffs on a wide range of IT and electronics products, including semiconductors, computers, telecom equipment, and components. This limited its ability to use protective tariffs, a common policy instrument for developing countries to nurture emerging industries. As a result, India has been unable to shield its domestic hardware and

electronics sector from low-cost imports, particularly from more advanced manufacturing economies thereby weakening the competitiveness of local firms”.

4.8 Dwelling on the point that India lacked the infrastructure and policy support needed to establish a robust ecosystem for electronics manufacturing and most of the electronics manufacturing that occurred in India was limited to the assembly of imported components rather than full-fledged production, the Committee wished to be apprised of that besides assembling, what measures were being taken by the Ministry to encourage and boost electronic goods/components manufacturing ecosystem in India. To this, MeitY replied as under:

“Government of India envisions positioning India as a global hub for Electronics System Design and Manufacturing (ESDM) by encouraging and driving capabilities in the country for developing core components, including chipsets, and creating an enabling environment for the industry to compete globally. Government of India’s goal is to broaden and deepen the country’s electronic manufacturing ecosystem as well as increase India’s participation in electronics Global Value Chains (GVCs). The Government has taken several measures to boost electronics manufacturing including semiconductors in the country and incentivizes large investments in the electronic goods and appliances as well as to promote exports. The steps taken by the Government for deepening and broadening the electronic manufacturing are available in **Annexure II**”.

4.9 Further, on being queried as to how much funds had been reserved for creating an ecosystem of R&D and innovation under PLI Scheme, MeitY provided the following in their written submission to the Committee:

“Under the PLI Scheme 2.0 for IT Hardware, no dedicated fund is explicitly reserved for R&D and innovation. However, R&D is indirectly supported as expenditure incurred on R&D and technology transfer is considered as eligible investment under the scheme”.

4.10 Regarding Government Initiatives to boost local manufacturing, MeitY has provided the following details:

Governments Initiatives

- **Phased Manufacturing Program (PMP):** In response to the challenges posed by the ITA, the Indian Government launched the Phased Manufacturing Program (PMP) in 2015 to encourage domestic production of mobile phones and their components. Under this program, tariffs were reintroduced on specific components while exempting others to gradually build local capabilities in stages.
- **Production-Linked Incentive (PLI) Scheme:** In 2020, the Government introduced the PLI scheme to incentivize large-scale manufacturing in India by offering financial incentives for increasing domestic production. This was part of India’s broader strategy to reduce its dependence on imports and become a hub for electronics manufacturing, especially in sectors like mobile phones and its components. The Government has also launched PLI scheme

for IT hardware to promote the domestic manufacturing of Laptops, tablets, Servers etc. The Government has also taken initiative of 'Semicon India' to promote manufacturing of semiconductors in the country.

- **Make in India Initiative:** Government has a vision to position India as a global hub for Electronics System Design and Manufacturing (ESDM) and create an enabling environment for the industry to compete globally. Government of India has taken various initiatives and notified Phase Manufacturing Programme, CAP-EX and OP-EX based incentive schemes to broaden and deepen the electronics manufacturing ecosystem. Under the Make in India initiative, the Government has been working to attract global companies to set up manufacturing facilities in India. This has already led to companies like Apple, Samsung, and Foxconn increasing their manufacturing presence in the country.

4.11 While tendering evidence before the Committee regarding PLI scheme, the Department of Telecommunications (Ministry of Communications) submitted that:

“Since the PLI scheme was introduced, we have had a significant increase in the volume of telecom equipment exports from countries. Second, the telecom equipment import has stabilized in the sense that we have been able to keep it”.

4.12 When asked MeitY to comment on weakening of Local Industry, Limited Technology Transfer and Cyber security challenges in connection with ITA and the details of measures adopted by the Ministry to meet these challenges, MeitY in its written reply has stated the following:

- “The duty-free import of IT products under ITA has made it difficult for Indian manufacturers to compete with cheaper and often more technologically advanced imports.
- The Ministry has taken several initiatives to promote domestic manufacturing in the electronics sector.
- ITA liberalizes trade but does not mandate technology sharing. As a result, high-end technology remains concentrated in advanced economies. The ITA has nourished monopoly of big companies to manufacture anywhere and sell anywhere in the world duty free leading to limited Technology Transfer to smaller industries. This restricts the ability of Indian companies to climb up the value chain and innovate independently.
- As ITA facilitates the influx of foreign IT products, it raises concerns about backdoors, spyware, or hardware vulnerabilities embedded in imported devices. Dependence on foreign infrastructure exposes India to external cyber threats. The supply chain security risk is one of the most prevalent challenges as IT products (software and hardware) are sourced from different regions. Supply chain attacks can be especially damaging because they may affect multiple parties in the chain and can have a cascading effect on the entire ecosystem, including national security systems.

4.13 Further, the measures taken by Ministry of Electronics & Information Technology (MeitY) to address the Cyber security challenges as submitted are as follows:

“National Cyber Security Policy (NCSP) released in July 2013, caters to the cyber security requirements of Govt. and non-Govt entities as well as large, medium & small enterprises and home users. The policy aims at facilitating creation of secure computing environment and enabling adequate trust and confidence in electronic transactions and also guiding stakeholders’ actions for protecting cyber space, for securing India cyberspace, creating cyber security ecosystem enhancing the resilience of critical infrastructure and establishing norms for international collaboration.

Directions under section 70B of IT Act: CERT-In issued directions under sub-section (6) of section 70B of the Information Technology Act, 2000 on 28th April 2022 relating to information security practices, procedure, prevention, response and reporting of cyber incidents for Safe & Trusted Internet.

Indian Computer Emergency Response Team (CERT-In) has been setup national nodal agency under section 70B of IT Act for 24 X 7 cyber security incident response.

National Cyber Coordination Centre (NCCC) has been set up to generate necessary situational awareness of existing and potential cyber security threats and enable timely information sharing for proactive, preventive and protective actions by individual entities.

Cyber Swachhta Kendra (CSK): The Botnet Cleaning and Malware Analysis Centre has been setup with an eye to create a secure cyber space by detecting botnet infections in India and to notify, enable cleaning and securing systems of end users so as to prevent further infections. CSK is covering about ~98% of Indian internet users as well as 1178 organizations across sectors.

International Cooperation and Collaboration in cyber security – CERT-In has 10 active bilateral Memorandum of Understandings (MoUs) on cooperation in cyber security incident with counterpart agencies of foreign countries to deal with and mitigate borderless cyber attacks.

CERT-In has signed **MoUs** with Industry, which benefit Government and industry with exchange of information on cyber security threats and threat intelligence, developing best practices and guidelines to enable organisations to secure their networks and systems, while cyber security awareness tips and free tools for cleaning the digital devices infected by malware are provided to citizens.

National Critical Information Infrastructure Protection Centre (NCIIPC) setup under section 70A of IT Act to serve as the national agency in respect of Critical Information Infrastructure Protection.

Software Bill of Materials (SBOM): Technical guidelines for the Software Bill of Materials (SBOM), issued by CERT-In, which aimed at enhancing the security and transparency of software supply chains. These guidelines offer a structured approach for creating, managing, and sharing detailed SBOMs, facilitating improved vulnerability management and risk mitigation. These guidelines are intended for use by suppliers, developers, and software-consuming organizations.

Secure Application Design, Development, and Implementation & Operations: Guidelines issued by CERT-In for the entities engaged in developing or outsourcing application development. The objective is to establish a firm and robust application security baseline in application development lifecycle and to ensure comprehensive application security throughout the development lifecycle, encompassing design, development, deployment, and maintenance phases. The guideline mandates that applications must adhere to secure design and development practices before undergoing assessments or audits.

Supply Chain Security: The **Trusted Supply Chain Security Certification** scheme has been formulated by STQC for securing national critical information infrastructure to evaluate supply chain risks, which may include insertion of counterfeits, unauthorized production, tampering and theft, insertion of malicious software and hardware, poor manufacturing and development practices in the ICT supply chain”.

4.14 The Committee sought from the Ministry whether it was a fact that while India saw a boom in IT services and software, its hardware and component manufacturing ecosystem remained underdeveloped as India lacked the infrastructure and policy support needed to establish a robust ecosystem for electronics manufacturing. Further the Committee also sought to know how the Ministry proposed to overcome this problem and build a robust ecosystem of manufacturing of electronic goods in India. To these, the reply furnished was as below:

- “Yes, India’s IT sector (software and services) has witnessed a significant growth, while the hardware and electronics manufacturing ecosystem has remained underdeveloped.
- The Government has taken several initiatives to promote domestic manufacturing in the electronics sector [Ref. Annexure-II] and the industry now getting momentum [Ref. Annexure-III]”.

4.15 According to MeitY, though the increased consumption of IT products, partly driven by the ITA, had contributed to the global e-waste challenge, the ITA had opened markets for green technologies such as energy-efficient devices and recycling equipment. Regarding this, the Committee asked the Ministry to explain in detail along with the recent progress made. The following was submitted:

- “The ITA has indeed contributed to the global e-waste challenge by increasing the consumption of IT products. However, it has also opened markets for green

technologies, such as energy-efficient devices and recycling equipment due to access to world class products.

- The e-waste related policies are carried out by the MoEF&CC and the R&D related issues are taken care by the Ministry. Government of India has notified E-Waste (Management) Rules, 2022 with a major aim to digitize the e-waste management process and enhance visibility”.

4.16 Finding that, one of the key challenges under ITA was to have skilled and technically trained manpower, the Ministry/Department was asked as to how it proposed to address this challenge as India is a huge market of cheap labour but skilled manpower was an issue. To this, the Committee have been informed by MeitY as follows:

“To address the challenge of ensuring skilled and technically trained manpower in electronic sector, the Ministry has endeavoured for Human Resource Development (HRD) in the electronics and IT sectors. Through its autonomous bodies i.e. NIELIT and C-DAC, MeitY provides industry-relevant training across both formal and non-formal education streams. These efforts are supported by other affiliated organizations such as ERNET India, STQC, NIC, and CSC, which also conduct targeted training. The Ministry promotes innovation and practical skills through hackathons, bootcamps, and competitions, while also expanding outreach through large-scale digital literacy and cyber awareness programmes.

The major schemes/activities pertaining to Human Resource Development for Electronics and ICT sector have been approved/under implementation is placed at **Annexure VII**”.

4.17 When MeitY was asked whether it concurred with the statement that while India’s IT sector has thrived in software and services, its hardware manufacturing industry remains constrained by structural challenges, exacerbated by its participation in the ITA, the following reply has been submitted by MeitY:

“Yes. Due to access of affordable IT equipment and favourable Government policies, the IT sector thrived in software and services. However, due to zero duty regime and other structural challenges to manufacturing, our hardware manufacturing industry remains underdeveloped”.

4.18 An in-depth analysis of the Subject also revealed that the globalized nature of IT products had also exposed systems to increased risks, including data breaches and cyber-attacks. While ITA had lowered barriers to technology access, it has also raised questions about global cyber security standards and data protection. On being queried to explain the measures that are being contemplated to overcome this problem, the Ministry of Electronics and Information Technology in its reply has submitted:

“IT Act and the rules thereunder sufficiently govern the major facets of cyber security in India including measures to secure personal data protection in the cyberspace through reasonable security practices. Additionally, once the Digital Personal Data Protection Act, 2023 (DPDP Act) is in force, it shall holistically

regulate digital personal data processing with lawful purpose, notice, and consent. Data Fiduciaries must safeguard data and report breaches to the Data Protection Board and affected individuals. Data Principals can access a summary of their data and its processing.

4.19 Enumerating the initiatives taken by MeitY, it was submitted that:

“The policies of the Government of India are aimed at ensuring a safe, trusted and accountable cyberspace for users in the country. The Government’s multifaceted approach to address the rising threat of data breaches and cyber-attacks due to lack of reasonable security practices, focus on strengthening legal frameworks, enhancing data protection & cyber security infrastructure, and promoting awareness among individuals and organisations. The Indian cyber law regime is rooted in the Information Technology Act, 2000 (‘IT Act’) and the rules there under. The IT Act and the rules made thereunder apply to any information which are generated by users themselves as well as to those which are generated using Artificial Intelligence (‘AI’) tools or any other technology for the purpose of defining offences. Although the provisions contained in the IT Act have stood the test of time and innovations in the ICT sector, the threat of growing cyber security issues remains ever present as technology evolves rapidly enabling more and more people to be connected over the internet and avail a wide variety of services.

The key provisions relating to cyber security are Section 69B, 70, 70A and 70B while other related provisions include Sections 43, 65, 66, 66C, 66D, 66E, 66F, 67C, 69 and 69A”.

4.20 Further, it was added that:

“Government is fully cognizant and aware of various cyber security threats and challenges and has taken following additional measures to enhance the cyber security posture and prevent cyber-attacks:

- (i) CERT-In, in December 2022, issued a special advisory on best practices to enhance the resilience of health sector entities, and has requested the Ministry of Health and Family Welfare (MoHFW) to disseminate the same to all authorised medical care entities and service providers in the country.
- (ii) CERT-In has issued guidelines on information security practices for Government entities in June 2023 covering domains such as data security, network security, identity and access management, application security, third-party outsourcing, hardening procedures, security monitoring, incident management and security auditing.
- (iii) CERT-In operates the Cyber Swachhta Kendra (Botnet Cleaning and Malware Analysis Centre) to detect malicious programmes and free tools to remove the same, and to provide cyber security tips and best practices for citizens and organisations.
- (iv) The office of National Cyber Security Coordinator (NCSC) has been established to coordinate, oversee and in compliance of Cyber Security

policies. The function of NCSC, inter alia, includes advise and ensure implementation of action plans for cyber security by nodal agencies in their areas of responsibility.

- (v) To mitigate cyber security risks on telecom networks, the National Security Directive on Telecommunication Sector has been mandated with effect from 15 June 2021.
- (vi) CERT-In operates an automated cyber threat exchange platform for proactively collecting, analysing and sharing tailored alerts with organisations across sectors for proactive threat mitigation actions by them”.

4.21 According to MeitY, the following has been the impact of duty and schemes of MeitY w.r.t. domestic phone manufacturing:

- “a) The domestic electronics hardware manufacturing sector faces certain disability vis-à-vis competing nations. The sector suffers disability of around 8.5% to 11% on account of lack of adequate infrastructure, domestic supply chain and logistics; high cost of finance; inadequate availability of quality power; limited design capabilities and focus on R&D.
- b) In order to build robust electronics manufacturing in the country, Government of India has implemented various policy measures. The details are as follows:

Excise duty based Phased Manufacturing Programme (PMP) for cellular mobile handsets and sub-assemblies/parts/sub-parts thereof was formulated and implemented in 2016-17 to increase the domestic value addition and establishment of a robust cellular mobile handsets manufacturing eco-system in India. However, excise duty was subsumed in GST regime. Thereafter, based on as per the recommendations IMC, BCD of 10% was imposed on the cellular mobile handsets and specified sub-assemblies / parts / sub-parts thereof w.e.f. 01.07.2017. BCD was further increased to 20%. To boost domestic manufacturing and attract large investments in mobile phone manufacturing and specified electronic components, a Production Linked Incentive Scheme (PLI) for Large Scale Electronics Manufacturing has been notified by MeitY on 1st April, 2020. In addition, M-SIPS/SPECS were to promote components manufacturing.

- c) As a result of various steps taken by the Government, more than 200 units manufacturing mobile phones and sub-assemblies / parts / sub-parts thereof have been set up in the country. Most major brands either have already set up their own manufacturing facilities or are in the process of doing so or have sub-contracted manufacturing to Electronics Manufacturing Services (EMS) companies operating from the country. These units are manufacturing mobile phones for domestic market as well as for export market. India has emerged as the 2nd largest manufacturer of mobile handsets in the world in volume terms. Production of mobile handsets has grown from INR 18,900 crore in FY 2014-15 to INR 3,50,000 crore in FY 2022-23, as per industry estimates. Exports of mobile handsets has grown from INR 188 crore in FY 2014-15 to INR 90,000 crore in FY

2022-23, as per industry estimates. Employment in mobile phone manufacturing sector is around 10 lakh persons (direct and indirect), as per industry estimates.

- d) Currently, there is a BCD of 20% levied on mobile phones and different duty on components of mobile phone which provides India with a level playing field in terms of cost competitiveness vis-à-vis other countries. The decision against India in WTO will result into reducing of BCD from 20% to 'Nil' on Mobile phone and its components, thereby affecting India's cost competitiveness vis-à-vis other manufacturing nations. As a result of Govt's initiatives, approximately 95% of India's demand (Value wise) and 99% (Volume wise) for mobile phones is being met by domestically manufactured mobile phones. India's loss of the WTO dispute case will result in imports of mobile phone".

4.22 The Committee were apprised that under the 'Make in India' initiative, the Government had been working to attract global companies to set up manufacturing facilities in India. This had already led to companies like Apple, Samsung, and Foxconn increasing their manufacturing presence in the Country. In this regard, MeitY was asked to explain as to how the presence of foreign companies would boost the manufacturing strength of items enlisted under ITA and was also asked to substantiate the reply *vis-à-vis* Phased Manufacturing Programme (PMP) and Production-Linked Incentive (PLI) Scheme run by it. The Ministry of Electronics and Information Technology in its reply has made the following submission:

- "The presence of foreign companies can significantly enhance India's manufacturing capabilities for ITA-listed items by bringing in advanced technology, investment, and global best practices. Aligned with the Phased Manufacturing Program (PMP), these firms help localize production by moving from basic assembly to high-value component manufacturing, fostering skill development and supply chain growth. Under the Production-Linked Incentive (PLI) scheme, foreign companies also drive large-scale production and exports, benefiting from financial incentives that reward higher output. Their integration into global value chains boosts India's export potential and competitiveness, making them crucial partners in India's ambition to become a global electronics manufacturing hub.
- The presence of foreign companies will boost the manufacturing strength of items listed under ITA by bringing advanced technology, capital investment, global supply chain integration, and large-scale production capabilities. The PLI Scheme 2.0 for IT Hardware has attracted global players like Dell and HP by offering an average incentive of around 5% on net incremental sales of goods manufactured in India for a period of six years. During its tenure the scheme is expected to lead to a total production of INR 3.35 lakh crore, bring in an investment to the tune of INR 2,430 crore and create 75,000 direct jobs".

4.23 About the measures contemplated to deal with issues of Cyber Security and Data Protection while having International Trade with other nations especially in context of ITA, MeitY submitted as follows:

“The existing legislations that deal with the issues of Cyber Security and Data Protection are the Information Technology Act 2000 (“IT Act”) the Digital Personal Data Protection Act 2023 (“DPDP Act”).

International data sharing or processing must comply with lawful purposes, consent requirements, and security safeguards as prescribed under the Sensitive Personal Data or Information (SPDI) Rules made under Section 43A of the IT Act, which are currently in force, and subsequently under the DPDP Act once it comes into effect.

The DPDP Act has been enacted but is not yet in force. The scope of the DPDP Act is to protect personal data of individuals while balancing the need to process such data for lawful purposes. The DPDP Act encapsulates the essential principles of Purpose limitation and Data minimization. Among its various provisions, the DPDP Act has specified provision for processing of the personal data outside India, which are crucial for enhancing cyber security and facilitating economic growth. The Central Government may, by notification, restrict the transfer of personal data by a Data Fiduciary for processing to a foreign country or territory. The Act also provides for an exemption where personal data of Data Principals not within the territory of India is processed pursuant to any contract entered into with any person outside the territory of India by any person based in India.

CERT-In is actively involved in monitoring cyber threats, incident reporting, and issuing security advisories to protect digital infrastructure.

Cyber security skilling initiatives are being expanded through NIELIT, C-DAC etc. to equip the workforce with the latest knowledge in data protection and cyber security”.

4.24 When asked by the Committee about the feasibility of PLI Scheme concentrating on Local Production Centres in rural areas of the Country to reduce imports and increase exports and what steps had been taken by the Ministry to benefit via local production in rural India under PLI scheme, the Ministry in its written reply, stated that:

“The Production Linked Incentive (PLI) Scheme is a pan-India initiative and does not geographically restrict investments, thereby allowing private companies to choose locations for their manufacturing units based on factors such as infrastructure availability, supply chain logistics, workforce access, and overall cost-effectiveness. The core objective of the PLI scheme remains reduction of imports and boost exports through scale and competitiveness”.

4.25 With the Government having recently approved the Component Manufacturing Incentive, the Committee wished to know whether this was reactionary in nature to the reciprocal tariffs announced by USA and whether it would help increase local manufacturing of components. The Committee further desired to know about the items included in this scheme and the scope to manufacture them locally. MeitY in response

furnished its reply as under:

“The recently approved Electronics Component Manufacturing Scheme is not a reactionary measure to the reciprocal tariffs announced by the USA, but a proactive and well-planned policy initiative aimed at strengthening supply chain ecosystem.

Further, the scheme will help in increase in domestic manufacturing of electronics components by attracting investments (global/domestic) across the value chain, leading to increase in Domestic Value Addition (DVA) and increase in the share of India’s exports in global electronic trade by integrating its domestic electronic industry with the Global Value Chains (GVCs).

The scheme broadly covers the following target segments:

S.No.	Target segments
A	Sub-assemblies
1	Display module sub-assembly
2	Camera module sub-assembly
B	Bare components
3	Non-Surface mount devices (non-SMD) passive components for electronic applications
4	Electro-mechanicals for electronic applications
5	Multi-layer Printed Circuit Board (PCB)
6	Li-ion Cells for digital applications (excluding storage and mobility)
7	Enclosures for Mobile, IT Hardware products and related devices
C	Selected bare components
8	High-density interconnect (HDI)/ Modified semi-additive process (MSAP)/ Flexible PCB
9	SMD passive components
D	Supply chain ecosystem and capital equipment for electronics manufacturing
10	Parts/components used in manufacturing of sub-assembly (A) and bare components (B) & (C)
11	Capital goods used in electronics manufacturing including their sub-assemblies and components

The scheme envisages to attract investment of ₹ 59,350 crore, result in production of ₹ 4,56,500 crore and generate additional direct employment of 91,600 persons and many indirect jobs as well during its tenure”.

CHAPTER-V

India's Stand on ITA in WTO, Need for Review of ITA and Way Forward

WTO Disputes on ITA: Imposing of Tarrifs on various products by India

5.1 According to the Department of Telecommunications (DoT) (Ministry of Communications), European Union, Japan and Chinese Taipei, in 2019, alleged that India, by imposing duties of up to 20% on Information and Communication Technology (ICT) products mentioned below, is in violation of provisions of General Agreement on Tariffs and Trade 1994 (predecessor of WTO). The contested products include mobile phones, mobile phone components and accessories, line telephone handsets, base stations, static converters, electric conductors and cables.

HS2007	Product	Base rate of duty	Bound rate of duty	Initial negotiating rights (INR)	Other duties and charges (ODC)
1	2	3	4	5	6
Ex 844332	Other, capable of connecting to an ADP machine or to a network	Unbound	Unbound		0
848610	Machines and apparatus for the manufacture of boules or wafers	Unbound	Unbound		
848620	- Machines and apparatus for the manufacture of semiconductor devices or of electronic integrated circuits	Unbound	Unbound		
848630	- Machines and apparatus for the manufacture of flat panel displays	Unbound	Unbound		
848640	Machines and apparatus specified in Note 9 (C) to this Chapter	Unbound	Unbound		
848690	Parts and accessories	Unbound	Unbound		
851712	Telephones for cellular networks or for other wireless networks	Unbound	Unbound		0
851761	Base Stations	Unbound	Unbound		0
Ex 851762	Other machines for the reception, conversion and transmission or regeneration of voice, images or other data including switching and routing apparatus	Unbound	Unbound		0
Ex 851769	Others	Unbound	Unbound		
Ex 851770	Parts of 851712, 851761, Ex 851762 & Ex 851769	Unbound	Unbound		0
Ex 851770	Other parts	Unbound	Unbound		0
Ex 852580	Television cameras, digital cameras and video camera recorders	Unbound	Unbound		0
852990	Parts suitable for use solely or principally with the apparatus of heading 8525 to 8528	Unbound	Unbound		
Ex 853190	Other parts [other than that of indicator panels incorporating liquid crystal devices (LCD) or light emitting diodes (LED)]	Unbound	Unbound		

5.2 Further, the Committee were apprised that Brazil, Canada, China, Indonesia, Korea, Norway, Pakistan, Russian Federation, Singapore, Thailand, Turkey, Ukraine, and United States had joined as third parties in these disputes. Regarding this, DoT has stated that India has argued that its measure of levying duty on said products is legally valid as they do not fall under the ambit of ITA-1 to which India is a signatory. The panel was established individually for all three cases during second half of 2020. The Panel issued its final report to all WTO members on 17 April 2023, wherein it has over-ruled India's argument, and recommended that India brings the above mentioned measures in conformity with its GATT 1994 obligations. As per the rules of the World Trade Organization (WTO), the panel's rulings are to be adopted by the Dispute Settlement Body (DSB) for implementation within 60 days of the release of the order. However, countries could mutually request the body to delay the adoption of the ruling. Accordingly, as per the available Dispute Settlement procedures, India was taking the necessary steps, and was also exploring the options available in light of its WTO rights and obligations. It was expected that the panel's report would not have any immediate impact on India's ICT products.

5.3 The Committee were given to understand that as per the recent developments, USA had imposed 10 percent universal tariff on all imports except Pharmaceuticals, effective April 5, 2025. Further, Country-wise reciprocal tariff had also been imposed

and India was subject to 26% of reciprocal tariff. The application of aforesaid tariff violates Article II of GATT (General Agreement on Tariffs and Trade) 1994 which was member countries cannot impose tariffs exceeding their bound commitments. Any duties or charges beyond those listed in their schedules would constitute a violation of WTO regulations.

5.4 While responding to the queries of the Committee on USA imposing 10 per cent universal tariff, MeitY during evidence submitted as under:

“Sir, it is unilateral decision. उन्होंने कर दिया तो कर दिया। As far as India is concerned, we eliminated on 217 HS lines in 1996. I understand that US has invoked the International Economic Emergency Security Act. So, the legal framework in which they have done it is this. They had passed an internal Act, the International Economic Emergency Security Act. उसके तहत उन्होंने किया है। The duties were eliminated, as was pointed out, in 217 cases in a phased manner till 2005. The Schedule of concession was published by modifying Schedule 12 in 1997. As is fairly clear, more or less, both import and export of ITA-1 goods has gone up. I mean the import has gone up at a slightly faster rate than the exports. There is a fairly sizeable deficit in the trade. In the most recent years, of course, the exports have also been pushed up by the exports of mobile phones. If you see, there is a discontinuous growth in the exports in the last three years. That is primarily because of the mobile phone exports from India”.

5.5 During evidence, while elaborating whether India would gain from on-going tariff war, the representatives of MeitY deposed before the Committee as:

“In our estimation – number of exports we have studied independent of this – if you take just mobile phones as an example, the United States imports something like more than 50 billion worth from China alone. We are exporting. So, the potential to catch up there is huge. If we replace China as a market, I mean as a source, and then there is a good possibility”.

5.6 At a time when WTO decisions are constraining India’s freedom of policy making, the Committee wanted to be apprised about the initiatives being taken by the Ministry to preserve the policy space for emerging areas of Information and Communication Technology, such as Artificial Intelligence and challenge the non-Tariff barriers, restrictive regulatory practices and predatory pricing at WTO. MeitY submitted as:

- India regularly raises Specific Trade Concerns (STCs) in WTO Technical Barrier to Trade (TBT) committees, targeting unjustified Technical Barrier to Trade, and procedural barriers imposed by other nations.
- Further, the Government has notified orders like CRO and MTCTE to improve the quality of the domestic produce for global competitiveness and to ensure that domestically produced products are safe, secure and are of good quality”.

5.7 The Committee felt that going by the flat 10 per cent tariff announced by US on all imports and even higher tariffs on some countries, the proposed tariff on India could

be up to around 27 per cent. This would have a huge impact on the electronic sector as America imported electronic products worth about \$14 billion from India every year. With the implementation of this tariff, the competitiveness of Indian products would decrease, jobs could be lost and export-based products could suffer. In view of this, the Committee asked MeitY to apprise them about the steps/counter measures the Ministry was contemplating to take on this tariff war of USA. In response, MeitY in its written reply has submitted that:

“India is negotiating the Bi-lateral Agreement (BTA) with USA to protect the interest of the Indian industry”.

5.8 When asked whether there were any provisions of Special and Preferential Treatment of Developing countries in ITA-1 and whether a new Harmonized System (HS) for customs was required in ITA which should not tilt towards developed nations and whether a Zero duty on Parts Components Accessories would be beneficial for India and developing countries, the Ministry of Electronics and Information Technology in its written reply, stated:

“There are no such provisions for Special and Preferential Treatment of Developing countries in ITA-1. Revision of HS codes is a dynamic process which undergoes revision/ updation after every 5 years and is largely related to product classification. Zero duty on components and parts result in providing components and parts at a lower cost. Hence, it would be beneficial to any developing country which has necessary capital, technology and human resource to make products by assembling those parts”.

5.9 Further, the Ministry of Commerce in its deposition before the Committee about India's ITA position in WTO submitted that:

“Now, we are in a position to also manufacture some of these IT products, so we have not joined the ITA-2 that is one. Secondly, we are not relented on the fact that those products which were not part of the ITA-1 and those new products were developed and new classifications permitted those products, so we have imposed, we have exercised our right of imposing those duties and we are fighting for those rights. So, we have taken a very, very strong position in WTO with respect to our rights and we are moving in that direction”.

5.10 When the Committee wanted to know if the Government of India decided to participate in the ITA expansion negotiations for the time being and what was India's position with respect to ITA 2.0 along with the way forward on ITA agreement for India now, especially in wake of recent Tariffs war being raised by US on other countries rendering WTO virtually to a position of redundancy, MeitY replied:

- “In light of the learning from India's experience with the ITA 1.0, it has been decided not to participate in the ITA expansion negotiations to build a sound manufacturing environment in the field of Electronics and Information Technology

- The export of ICT products continuously is showing a rising trend. According to industry experts, it envisages that the recently ignited trade war by the US may open new opportunities for the Indian electronics industry”

5.11 Further, the Committee sought information from the Ministry of Electronics and Information Technology whether the Ministry has agreed to move forward with Information Technology Agreement (ITA 2) and if so, what changes India was going to witness in coming days. In response, the following has been submitted:

“No. Currently, no proposal is under consideration for signing ITA 2.0”.

5.12 About India’s decision not to participate in ITA-2, the Committee felt that it could affect its ability to shape future ITA negotiations, potentially deterring international investors from expanding their presence in the Indian market. When asked how the Ministry viewed this decision in wake of massive transformations expected in IT hardware/electronics manufacturing due to advent of Artificial Intelligence, the Ministry of Electronics and Information Technology have made the following submission:

- “The ITA-2 covers 201 products like newer generation semiconductors, GPS systems, medical devices, and next-gen electronics. India chose not to join ITA-2, citing concerns over erosion of its domestic electronics manufacturing base, the need to maintain tariffs for "infant industry" protection. Not joining ITA-2 does not affect India’s future negotiating positions. On the other hand, by not joining ITA-2, India retains its policy flexibility of levying or withdrawing tariff either through multilateral means or through bilateral approach. Further, for promotion of manufacturing, India has taken a calibrated approach and provided need-based exemption from Basic Customs Duty (BCD) on import of capital goods/ inputs even for non-ITA goods. The Government has notified various incentive schemes to attract global companies to set up manufacturing facilities in India.”

5.13 An analysis of India’s experience with the ITA 1.0, it was found that it had been most discouraging, which almost wiped out the IT industry from India. India had filed a rectification schedule for ITA agreement. Further, at WTO in the context of ICT disputes filed against India by the EU, Japan, and Chinese Taipei, the struggle was still on. Hence, the Committee sought the current status of rectification schedule filed by India and the ICT disputes filed against India by several countries. MeitY in its reply submitted the following information:

“The rectification request filed by India for rectification of errors is under reservation at WTO. The European Union (DS582), Japan (DS584) and Chinese Taipei (DS588) had filed ICT dispute against India in WTO. The disputes are understood to be significant as they relate to India’s policy space on levying duties on IT products. The decision of WTO Dispute Settlement Body (DSB) has given rulings against India”.

5.14 Furnishing details about ICT disputes, MeitY has submitted the following:

- “India is a signatory to Information Technology Agreement-1 (ITA-1), which was

concluded by 29 participants at the Singapore Ministerial Conference in December 1996.

- The ITA covers many high-technology products, including computers, telecommunication equipment, semiconductors, semiconductor manufacturing and testing equipment, software, scientific instruments, and most of the parts and accessories of these products, representing 97% of the world's trade in IT products.
- The ITA requires each participant to eliminate and bind customs duties at zero for all products specified in the Agreement. Even countries not joining the ITA can benefit from the trade opportunities generated by ITA tariff elimination. This is brought into effect by each member country notifying the tariff reduction in their Schedule of Concessions. India consequently amended its Schedule of Concessions in 1997. India signed the Ministerial Declaration i.e., Information Technology Agreement (ITA-1) in 1997 as per HS 1996 wherein 217 HS lines were covered on which duty was reduced to zero in phased manner.
- The HS codes are reviewed periodically after every 5 years; thus, the HS codes were revised in 2002, 2007 and so on. In 2002, there were not much changes in HS codes w.r.t. electronics sector but in 2007 there were major changes.
- As far as the cellular phones are concerned, it was not clearly mentioned in HS 1996 about the wireless products e.g. Radio Telephony apparatus for motor vehicles, ships, trains etc. The chapter heading of HS 8517 was changed to include wireless products from 8525 during HS Schedule revision in 2007 in addition to the wired products. Mobile phones are classified under the HS 851712.
- The WTO formulated the HS schedule for the developing countries for transposition as per HS 2007 and a window of three month was given for comments and it was indicated that if no comments are received within this period, the India's schedule would be considered a ratified. The schedule was ratified on 12.5.2015. This lead to major changes in India's schedule and many product lines were bound at zero duty.
- The meeting of the Inter-Ministerial Committee (IMC) Meeting comprising of member from MeitY, DoT, DoC and DoR was held on 03.05.2017 in MeitY to review and evolve a harmonized view on imposition of Basic Custom Duty (BCD) on electronic goods covered under ITA-1.
- Based on the detailed analysis, it was concluded that cellular mobile phones were not covered under the ITA-1 of WTO and the IMC recommended imposition of BCD of 15% on cellular mobile phones and parts thereof (presently covered under HS 85171210, HS 85171290 & HS 851770), in accordance with the PMP (Phased 2 Manufacturing Programme) notified by MeitY. Accordingly, BCD was imposed on certain IT products and parts thereof.
- India's rationale (amongst others) for imposing duty was that these products were not in existence in 1996 and therefore could not have been bound pursuant to the ITA-1. However, the complainants have claimed that India has violated the "NIL"

duty commitments under its Schedule of Concessions.

- The European Union (DS582), Japan (DS584) and Chinese Taipei (DS588) had filed ICT dispute in against India in WTO (World Trade Organization). The disputes are understood to be significant as they relate to India's policy space on levying duties on IT products.
- The decision of WTO DSB has given rulings against India".

5.15 About WTO dispute for ICT products, MeitY submitted:

- "The Panel on India – Tariffs on ICT Goods (DS582/ DS 584 / DS 588) was established by the DSB on June 29 2020, and composed on August 31 2020.
- EU is the complainant in DS 582. At the same time, Japan is the complainant in DS 584 and Chinese Taipei in DS 588.
- The Panel circulated the final report to all WTO members on April 17 2023. The report was not in favour of India".

5.16 While apprising the Committee about the present status, the Department of Commerce (DoC) has stated that as on 27.12.2023, the following was the position:

- "In DS582 (EU) - the EU included on the agenda of the DSB meeting on 07 December 2023 that they intend to seek for adoption of the Panel report. Hence India appealed against the Panel report on 08 December 2023.
- In *DS588 (Chinese Taipei) - Both countries have jointly decided and communicated their intention for deferment in the adoption of the Panel report till 26 April 2024. The DSB in its meeting on 18 December 2023, had accepted it.
- While in DS584 (Japan) - India appealed against the report in May 2023.
- Further, DoC is waiting further communication from the complainants.

5.17 MeitY being optimistic about the fact that Indian mobile industry will become competitive and may survive without any duty also stated that:

- "There is an Appellate Body mechanism in WTO. It is a standing body of seven persons that hears appeals from reports issued by panels in disputes brought by WTO Members. The Appellate Body can uphold, modify or reverse the legal findings and conclusions of a panel, and Appellate Body Reports are adopted by the Dispute Settlement Body (DSB) unless all members decide not to do so. At present there is no Appellate Body in WTO, however, India may use its right to file an appeal in void and force WTO to constitute an Appellate Body to resolve the issue. It may take some time, may be 2-3 years, and domestic manufacturing may get some time to establish and develop sufficient ecosystem of component as well as finished goods manufacturing. With more measures from government side, such as reduction of duty on components and other EoDB

measures, Indian mobile industry will become competitive and may survive without any duty also.

- India may insist the complainants to resolve their issues through bilateral FTA negotiations.

5.18 The Committee noted that the rapid convergence of the information technologies had created a big challenge to the existing legal and regulatory regime. In the area of international trade, these unprecedented and unpredictable changes in the ICT industry and market had demonstrated that what used to work in the past to determine tariffs may no longer be the right approach for trade. With regard to these, MeitY was asked whether commitments made pursuant to the ITA (already two decades old) were sufficient to handle today's commercial realities. MeitY submitted its reply as follows:

"The ITA, while historically successful in promoting trade in traditional IT products, is no longer sufficient to handle the challenges posed by the current ICT landscape. The rapid convergence of technologies, the shift towards digital services, and the rise of new regulatory challenges demand that the ITA be revisited and updated to reflect the modern digital economy".

5.19 When the Ministry was asked if it was an appropriate time to work towards an e-South Framework Agreement aiming at bridging the digital divide through an integrated development of ICT sector within the framework of South-South cooperation drawing inspiration from the e-ASEAN Framework Agreement, the following submission was made:

- "The "e-South Framework Agreement" is not a widely recognized term within the context of Indian international agreements.
- Till date we have not received any request from the Department of Commerce to provide inputs/comments regarding the e-South Framework Agreement".

5.20 On being asked to explain whether the dispute on ITA-1 is becoming a hurdle in India's negotiation for Free Trade Agreements (FTAs) and whether any positive alternatives were available with India for opting out of ITA-1 and adopting FTAs at bilateral and multilateral levels, MeitY furnished its reply as under:

- "ITA and FTA are two different types of agreements.
- EU, Chinese Taipei and Japan have filed dispute in WTO against India. India has already concluded FTA with Japan, UK and negotiation with EU is going on.
- A participating member of the ITA under the WTO cannot unilaterally "withdraw" its participation in the agreement, as the ITA is a Plurilateral Agreement negotiated within the Multilateral framework of the WTO by modifying the schedule of concessions of the Member country. Any significant change, such as withdrawal or modification of commitments, would need to be conducted in accordance with the Decision of 26 March 1980 on Procedures for Modification

and Rectification of Schedules of Tariff Concessions. It may be noted that the modifications involve formal negotiations and compensatory adjustments with affected trading partners, ensuring balance in trade concessions. This makes practically impossible to rectify the schedule. There is provision to withdrawal from WTO as prescribed in Article XV of the WTO Agreement. It is also mentioned that Withdrawal from a Plurilateral Trade Agreement shall be governed by the provisions of that Agreement. Since ITA is Plurilateral agreement implemented in Multilateral way, there seem no provision to withdrawal from it”.

5.21 Further, when the Committee desired to be apprised about the likely implications on the trade relations of India with other countries if India considers opting out of ITA Agreement at WTO and prefers signing of Bilateral/multilateral Trade Agreements/ FTAs with other nations as per its national interests, MeitY has submitted its reply as:

“As mentioned, practically it is difficult to opt out from ITA; however, In case India considers opting out of ITA, it may have to face retaliation from the WTO members”.

PART-II

OBSERVATIONS/RECOMMENDATIONS

IMPACT OF ITA ON INDIA - POSITIVES& NEGATIVES

Consumer's Benefit due to reduced costs, more products choices and latest Technology options

1. The Committee observe that signing of Information Technology Agreement (ITA) at WTO has contributed to making electronic products more affordable for consumers in India and facilitated the import of advanced technologies. One of the core aspects of the ITA was the elimination of tariffs on a wide range of IT products. While this made it difficult for India's domestic electronics manufacturing sector to compete with cheaper, imported products, it, however, benefitted consumers by reducing the cost of electronics like computers, smart phones, semiconductors and IT gadgets. Thus, the positive impacts of ITA include reduced costs; improved access to technology, enhanced competitiveness, global integration, innovation and productivity, etc. ITA enabled the import of advanced component (semiconductors, servers, routers, etc.) at zero tariffs, helping start-ups and large private firms to develop high-tech products. The Committee note that with tariff reductions, emerging markets gained easier access to advanced technologies, enabling digital transformation in developing countries, helping them catch up with more advanced economies, growth in e-commerce, mobile banking, and digital education, which helped address some of the socio-economic challenges in less developed regions. For example: the availability of more affordable computing power and sensors has accelerated AI research and adoption, making AI-driven technologies more accessible globally. Telecommunications equipment covered under the ITA has enabled faster deployment of 5G networks and faster connectivity, revolutionizing industries like healthcare, manufacturing, and transportation. The ITA has also facilitated the growth of Internet of Things (IoT) Devices by lowering costs of sensors, networking hardware, and other essential components, leading to a more connected world. Moreover, it has also encouraged Innovation and competition as the reduction in cost of ITA goods has stimulated innovation as companies reinvest savings from reduced tariffs into R&D, fostering the development of new technologies like AI, IoT, and cloud computing. It has further fostered Global competition, as companies from all over the world could more easily enter new markets, leading to increased product diversity and efficiency.

The Committee have also been apprised by the Ministry that the availability of low-cost technologies has fuelled smart city initiatives that focus on sustainability, energy efficiency, and resource management, often leveraging ITA-enabled devices like sensors and connectivity tools. India's membership in the ITA has offered some benefits, such as duty-free access to global markets, increased FDI, access to international product standards and quality. Further, due to reduced cost of ICT goods, India excelled in software and IT-enabled services (ITES).

In view of the above, the Committee while appreciating the positive impacts of ITA which has kept consumers at centre stage and made the consumers the ultimate beneficiary, also sound a word of caution to the Ministry for adopting a balanced and calibrated approach towards ITA tariffs, non-tariff barriers and products expansions ensuring that the domestic electronics manufacturing industries are protected, consumer's interests are not ignored and ought to be taken into account primarily while making any policy decision on ITA at WTO.

Trade Deficit due to increased Import Dependence of India

2. The Committee observe that zero-duty imports under the ITA has impacted India's domestic electronics manufacturing sector by increasing import dependence and hindering local growth. The unfavourable trade balance due to high volume of imports and very low volume of exports has led to a condition of Trade deficit for India in IT/Electronics hardware trade under WTO ambit. The elimination of tariffs made imported electronics cheaper, benefitting consumers but making it difficult for Indian manufacturers to compete, especially against established players from countries like China and South Korea due to lack of technology, skills, vast difference in manufacturing cost etc. This has led to a surge in imports and a widening trade deficit in electronics sector. Additionally, the lack of tariff protection discouraged Research and Development investment in domestic manufacturing, resulting in limited technology transfer and minimal development of a local component ecosystem. As a result, much of India's electronics industry remained focussed on assembling imported parts rather than full-scale manufacturing, limiting value addition and employment generation. Consequently, India became heavily reliant on imports of electronic components and finished products.

The Ministry has apprised the Committee that according to the WTO Report, in 1996, India was not listed on the list of major exporters of ITA products, however, in 2015; it registered a 0.1% share in the list of major exporters of ITA products. Overall, the ITA's impact on India's electronics trade balance has been largely unfavourable. The Import-export trend of ITA goods as per data available at WTO website indicates that the trade deficit is increasing. The Committee take

note that India's electronics sector was underdeveloped, and the removal of tariffs prematurely exposed it to global competition, stifling growth. Unlike countries such as China or Vietnam, which joined after building stronger industrial bases, India lacked the technology, skills, scale, infrastructure, and policy flexibility to benefit from the agreement. Moreover, the ITA incentivized low-value assembly over full-scale manufacturing, limiting domestic value addition and technological advancement. India also experienced revenue loss by eliminating tariffs on over 200 product lines.

As per the information furnished by the Ministry, the top three exporters of ITA products in 1996 were the EU, USA, and Japan enjoying percentage share of 31%, 20%, and 15% respectively while China had only a 2% share. However, in 2015, China acquired the top position and had 33% while the share of the EU and USA shrank and became 16% and 9%, respectively. It reveals that the major beneficiary of the ITA at present is China. In 2015, India's share in world export was as meagre as 0.1% only. On the other hand, with respect to the imports, the data further reveals that top three importers of ITA products in 1996 were the EU, USA, and Japan having share of 34%, 22%, and 7%, respectively while China had only 2% share. However, in 2015, China acquired the top position and had 23% imports while the share of the EU and USA shrank to 20% and 15%, respectively. It highlights that import of ITA products has also been drastically increased in China. In 2015, India's share in world import was 2%. The Committee are concerned to note this widened import-export gap for India. The Committee, therefore, urge the Ministry of Electronics and Information Technology, Ministry of Commerce and Department of Telecommunications to make collective and earnest efforts towards reducing the imports and increasing exports in IT products, Software services, electronics hardwares and mobiles etc. by way of policy interventions like encouraging R&D investments which strengthen the domestic manufacturing industries and MSMEs in India, and by further encouraging PLI Schemes and Make in India initiatives of the Government.

Weakening of Local Industries and limited Technology Transfer

3. The Committee note that the reduced tariffs under ITA agreement and cheap imports promoted the imports and there was no attraction for the local manufacturers to scale up and invest in domestic production thus weakening the local industry. Many Indian manufacturers struggled to compete against established global players, who had access to more advanced technology, capital, and economies of scale. It is quite evident that much of the electronics manufacturing that did occur in India was limited to the assembly of imported components rather than full-fledged production. This limited the value-addition and employment opportunities that the sector could generate. The Ministry have submitted the fact that at the time of joining ITA-1, India's

electronics sector was underdeveloped, and the removal of tariffs prematurely exposed it to global competition, stifling growth.

The Committee observe that the status and objectives of the parties to the ITA, including the levels of development of their information technology sectors have been significantly different. Many of the developing countries had joined the ITA pre-maturely without enough capacity or preparations to take part in the export markets. Opening up the sector too early badly affected domestic sector, and often led to concentration of the economic activities in assembling and trading in Information Technology products rather than in acquiring and expanding manufacturing capacity. Such structural shifts impact the achievement of value-addition and the creation of employment in the sector. The Committee further observe that the free flow of IT products into India did not always result in significant technology transfer or capacity building in the domestic industry. This led to a situation where India was primarily an importer and consumer of electronics rather than a manufacturer and there was limited Technology Transfer. In response to a query regarding key regulatory and policy conflicts which have arisen between India's industrial goals and ITA obligations, the Ministry has made submissions that the inability to impose tariffs due to India's commitment to ITA, has limited India's capacity to pursue import substitution strategies, which are central to self-reliance efforts such as 'Make in India' and 'Atmanirbhar Bharat'. Further, by agreeing to eliminate tariffs on a wide range of IT products, India gave up an important policy tool of protective tariffs that many countries have historically used to nurture their domestic industries. The Committee further note that the ITA with its wider product coverage has restricted India's flexibility to protect sensitive or strategic sectors and has impacted our country's policy to incentivize indigenous production of IT and electronics goods through tariffs or subsidies. The Committee strongly feel that by signing the ITA in 1997, India agreed to eliminate tariffs on a wide range of IT and electronics products, including semiconductors, computers, telecom equipment, and components without ample prudence or following the steps of caution. This limited its ability to use protective tariffs, a common policy instrument for developing countries to nurture emerging industries. The Committee are distressed to note that India has been unable to shield its domestic hardware and electronics sectors from low-cost imports, particularly from more advanced manufacturing economies thereby weakening and stifling the competitiveness of local firms.

On being enquired by the Committee whether ITA has opened the doors of new markets to the private players and cornered the micro and small industries from the market, the Ministry of Electronics and Information Technology have substantiated its view that ITA has opened access to global markets by reducing tariffs, lowering the cost of IT goods, and enhancing the competitiveness of

MSMEs. However, on the other hand, ITA has also intensified competition by allowing a surge of cheaper imports with advanced and latest technologies, which has posed serious challenges to domestic manufacturers, especially smaller players. The Committee seriously note the cases of domestic manufacturers of motherboards, printed circuit boards (PCBs), and power supplies who were unable to compete with cheaper imports and consequently many of them had to be shut down.

The Committee, therefore strongly recommend all concerned Ministries and Departments of the Government of India to take appropriate steps towards protection of domestic industries, especially MSME sectors, to fuel the growth of electronics manufacturing sector in India. Balancing the protection of nascent domestic industries with adherence to global trade obligations presents a significant challenge. Strategic policy interventions, coupled with carefully revised trade agreements are, therefore, essential to ensure that India remains competitive in the ever evolving global IT landscape.

WTO Negotiations: ITA Disputes and Institutional, Legal constraints for India

4. The Committee have been apprised that the WTO formulated the Harmonised System (HS) schedule for the developing countries for transposition as per HS 2007 and a window of three months was given for the comments and it was indicated that if no comments are received within this period, then India's schedule would be considered as ratified. The schedule was ratified on 12.5.2015. This led to major changes in India's schedule and many product lines were bound at zero duty. The meeting of the Inter-Ministerial Committee (IMC) comprising Members from Ministry of Electronics and Information Technology, Department of Telecom, Ministry of Commerce and Department of Revenue was held on 03.05.2017 to review and evolve a harmonized view on imposition of Basic Customs Duty (BCD) on electronic goods covered under ITA-1. The Committee note that based on the detailed analysis, it was concluded that cellular mobile phones were not covered under the ITA-1 of WTO and the IMC recommended imposition of BCD on cellular mobile phones and parts thereof. India's rationale for imposing duty was that these products were not in existence in 1996, and therefore, could not have been bound pursuant to the ITA-1. India has argued that its measure of levying duty on said products is legally valid as they do not fall under the ambit of ITA-1 to which India is a signatory. However, the complainants have claimed that India has violated the "NIL" duty commitments under its Schedule of Concessions.

The Department of Telecom has furnished information to the Committee that in 2019 the European Union, Japan and Chinese Taipei alleged that India by imposing duties of up to 20% on ICT products committed violation of provisions of General Agreement on Tariffs and Trade 1994 (predecessor of WTO) and hence

filed disputes against India in WTO. The contested products included mobile phones, mobile phone components and accessories, line telephone handsets, base stations, static converters, electric conductors and cables. Brazil, Canada, China, Indonesia, Korea, Norway, Pakistan, Russian Federation, Singapore, Thailand, Turkey, Ukraine, and United States have also joined as third parties in these disputes.

When the Committee desired to know how successfully India has put forward its point through WTO with respect to ITA for preserving the policy flexibility of the Government to support its domestic producers to the maximum possible extent and what institutional or legal constraints India has encountered in renegotiating or reforming its commitments under the ITA, the Ministry made the submission that ITA did not provide a clear mechanism for renegotiating or withdrawing from specific tariff commitments, making it difficult for India to formally revise its obligations. However, India has filed rectification request as per Article XXVIII of GATT to modify the binding commitments under schedule XII. The decision of WTO Dispute Settlement Body (DSB) is not in favour of India. However, India has filed an Appeal against the decision of WTO Dispute Settlement Body (DSB). The Ministry has further submitted that while WTO members can renegotiate bound tariffs under GATT Article XXVIII, this is a complex, time-consuming process and is rarely used for plurilateral agreements like the ITA. Keeping in view the above, the Committee strongly urge the Ministry to engage in meaningful negotiations through diplomatic channels to earnestly contest India's case in WTO till last available opportunity and upto the highest appellate level. The Committee exhort the Ministries/ Departments to seek out of the box possibilities and renegotiation strategies should also be explored in this regard as the WTO decision on ICT products including mobile phones is going to have large impact on India's electronics hardware trade balance.

Restrictions on Autonomy of India in Regulatory & Policy matters due to ITA obligations

5. The Committee observe that ITA commitments at WTO for a legally binding zero tariff policy on ICT products has severely imposed restrictions and limitations on functional autonomy of India in regulatory and policy matters. Even more glaring and astonishing part is that there is no exit clause for the signatory member countries under ITA 1.0. The ITA did not provide any clear mechanism for renegotiating or withdrawing from specific tariff commitments, making it difficult for India to formally revise its obligations. When enquired by the Committee as to what extent the ITA has hindered India's ability to impose tariffs for protecting its emerging domestic IT industries and how the ITA has influenced India's ability to adopt policies for self-reliance in technology production, the Ministry have outlined some of the major hindrances that emerged after signing ITA and its

influence on India's ability to adopt policies for self-reliance in technology production. It highlighted that by signing the ITA in 1997, India committed to eliminating tariffs on a wide range of its IT and electronics products. This included computers, semiconductors, telecom equipment, and other high-tech goods. This commitment is binding under the WTO, meaning India cannot reintroduce tariffs on these items without violating its international obligations. While advanced economies benefitted from liberalized access to Indian markets, Indian firms still in their infancy had to compete against large, well-established global players. The Committee feel that tariff barriers often play a key role in import substitution strategies, which are central to self-reliance. Under the ITA, India cannot impose tariffs on import/export of IT/electronic trade even when a domestic alternative is available. Further, due to Most Favoured Nation (MFN) commitments, India will not be able to apply discriminatory tariffs on imported electronics and IT products, limiting the effectiveness of these initiatives. India's disputes at WTO concerning ITA 1.0 with EU, Chinese Taipei, Japan and other member countries has already exacerbated and constrained the regulation and freedom in policy making with regard to IT/Electronics trade at global level.

The Committee observe that India's path forward in the global IT/electronics manufacturing sector requires a strategic and balanced approach. While engaging with global trade agreements like ITA which offer opportunities for economic growth, careful consideration of their impact on domestic industries and to seek for technology transfers is essential. The Committee recommend that by adopting interim measures such as leveraging Non-Tariff Measures (NTMs), strongly raising issues of predatory pricing at WTO, investing in Research and Development of emerging sectors, and pursuing incremental Free Trade Agreements (FTAs) with member countries, India can strengthen its position in global trade and the Global Value Chain while addressing domestic challenges and issues of functional autonomy in policy making.

CHALLENGES AND CONSTRAINTS POSED BY ITA & GOVERNMENT'S INITIATIVES

Lack of robust Electronics Manufacturing Ecosystem in India

6. The Committee observe that India lacks a robust electronics manufacturing ecosystem due to high import dependence for components, limited R&D and innovation, inadequate supply chains, infrastructure bottlenecks and skilled labour shortages. Despite Government initiatives like Make in India and PLI schemes, the sector still struggles to compete globally owing to cost disadvantages and low value-added production. Much of the electronics manufacturing that did occur in India was limited to the assembly of imported components rather than full-fledged production, resulting in low domestic value addition. There is also a shortage of specialized talent in hardware design,

embedded systems, and semiconductor manufacturing. While India saw a boom in IT services and software, its hardware and component manufacturing ecosystem remained underdeveloped. Unlike countries like China, which used tariffs and policies to build a strong domestic manufacturing base, India lacked the infrastructure and policy support needed to establish a robust ecosystem for electronics manufacturing. This limited the value-addition and employment opportunities that the sector could generate.

When the Committee queried the Ministry to explain the challenges faced by India in developing a competitive domestic electronics/hardware industry due to the signing of ITA, the Ministry has furnished the information that signing of the ITA has led to an influx of finished products while simultaneously reducing incentives for the development of a robust domestic component manufacturing ecosystem. Most of the critical components e.g. microchips, display panels, and integrated circuits are imported from countries like China, Taiwan, and South Korea, rather than being produced locally. India faced difficulties in establishing its own indigenous semiconductor and component manufacturing capabilities, which is crucial for creating a self-reliant and competitive electronics industry. Further, due to signing of ITA, there is limited protection for domestic manufacturers. The local manufacturers are unable to charge competitive prices for their products because they face lower-priced imports at zero duty from other countries. The Ministry has further stated that this has hindered the growth of domestic production capacity and innovation. The Trade Remedial Measures e.g. Anti-Dumping Duty, Safeguard Duties etc. are complex and time consuming.

When the Committee sought to be apprised of the fact that besides assembling, what measures are being taken by the Ministry to encourage and boost electronic goods/components manufacturing ecosystem in India, they submitted that Government of India has envisioned positioning India as a global hub for Electronics System Design and Manufacturing (ESDM) by encouraging and driving capabilities in the country for developing core components, including chipsets, and creating an enabling environment for the industry to compete globally. Government of India's goal is to broaden and deepen the country's electronic manufacturing ecosystem besides increase India's participation in electronics Global Value Chains (GVCs). The Government has taken several measures to boost electronics manufacturing including semiconductors in the country and incentivize large investments in the electronic goods and appliances as well as to promote exports. The steps taken by the Government for deepening and broadening the electronic manufacturing may be seen *vide* Annexure II. Further, regarding value addition in the electronics sector in India, the Ministry, during evidence submitted that currently, the value addition in the electronics sector, in India, is between 18 to 20 per cent. After the implementation of the component ecosystem scheme, the Government's objective is to double it to about 35 to 40 per cent. With ITA, the cheap or duty-free import of components

has helped Indian companies to source components at cheaper costs, which makes exports more competitive.

When catechized by the Committee to comment on the feasibility of PLI Scheme concentrating on Local Production Centres in Rural areas of the country to reduce imports and increase exports, and what steps have been taken by the Ministry to increase local production in rural India under PLI scheme, the Ministry stated that the Production Linked Incentive (PLI) Scheme is a pan-India initiative and does not geographically restrict investments, thereby allowing private companies to choose locations for their manufacturing units based on factors such as infrastructure availability, supply chain logistics, workforce access, and overall cost-effectiveness. The core objective of the PLI Scheme remains reduction of imports and boost exports through scale and competitiveness. The Committee have been informed that the Government has recently approved Component Manufacturing Incentive. It is a proactive and well-planned policy initiative aimed at strengthening supply chain ecosystem. Further, the scheme will help in increasing domestic manufacturing of electronics components by attracting investments (global/domestic) across the value chain, leading to increase in Domestic Value Addition (DVA) and increase in the share of India's exports in global electronic trade by integrating its domestic electronic industry with the Global Value Chains (GVCs). The scheme envisages to attract investment of ₹ 59,350 crore, result in production of goods worth ₹ 4,56,500 crore and generate additional direct employment of 91,600 persons and many indirect jobs as well during its tenure. In view of the aforesaid, the Committee strongly feel that though Government initiatives like PLI schemes and Make in India are steps in the right direction, sustained policy support by the Government, infrastructure development push, and proper investment in R&D and innovation along with financial incentives such as tax concessions, subsidies etc. for Start Ups and MSMEs are quintessential for catalysing and strengthening the electronics manufacturing in India. The Committee, therefore, exhort Ministry of Electronics & Information Technology, Ministry of Commerce and Department of Telecommunication to act collectively in coordination with all stakeholders to properly implement the aforesaid measures in right earnest to boost a robust IT/electronics manufacturing ecosystem in India.

Data Protection and Cyber Security challenges

7. The Committee observe that the globalized nature of IT/electronics products has also exposed systems to increased risks, including data breaches and cyber-attacks. While ITA has lowered barriers to technology access, it has also raised questions about global cyber security standards and data protection. While the Information Technology Agreement (ITA) under the WTO boosts global technology access, it also raises critical concerns regarding data protection and

cyber security, especially for developing countries. There is an unregulated flow of technology through easier cross-border movement of advanced IT products which may include embedded software with data harvesting or surveillance capabilities, raising risks of data leaks or misuse. Further, the dependence on foreign technology is a challenge as the developing nations very often rely on imported IT hardware and software. This increases vulnerability to cyber threats and digital espionage from foreign vendors, especially when there is limited technology to check or secure these systems. The Committee note that ITA doesn't address or enforce cyber security protocols or data privacy standards. Many of the countries lack strong regulatory frameworks to safeguard citizens' personal data and critical infrastructure. Also, the unrestricted imports and foreign dependence can undermine a country's digital autonomy, making it harder to enforce national laws on data localization, privacy, and cyber security.

On an enquiry by the Committee about cyber security challenges in connection with ITA, the Ministry have stated that as ITA facilitates the influx of foreign IT products, it raises concerns about backdoors, spyware or hardware vulnerabilities embedded in imported devices. Dependence on foreign infrastructure exposes India to external cyber threats. The supply chain security risk is one of the most prevalent challenges as IT products (software and hardware) are sourced from different regions. Supply chain attacks can be especially damaging because they may affect multiple parties in the chain and can have a cascading effect on the entire ecosystem, including national security systems. The Ministry of Electronics and Information Technology have further submitted that IT Act and the Rules thereunder sufficiently govern the major facets of cyber security in India including measures to secure personal data protection in the cyberspace through reasonable security practices. Additionally, once the Digital Personal Data Protection Act, 2023 (DPDP Act) is in force, it shall holistically regulate digital personal data processing with lawful purpose, notice, and consent.

When the Committee queried about the steps contemplated to deal with issues of Data Protection while doing International Trade with other nations especially in the context of ITA, the Ministry of Electronics and Information Technology submitted that the existing legislations that deal with the issues of Cyber Security and Data Protection are the Information Technology Act 2000 ("IT Act") and Digital Personal Data Protection Act 2023 ("DPDP Act"). International data sharing or processing must comply with lawful purposes, consent requirements, and security safeguards as prescribed under the Sensitive Personal Data or Information (SPDI) Rules made under Section 43A of the IT Act, which are currently in force, and subsequently under the DPDP Act once it comes into effect. The DPDP Act has been enacted but is not yet in force. The scope of the DPDP Act is to protect personal data of individuals while balancing the need to process such data for lawful purposes. The DPDP Act encapsulates the essential principles of Purpose Limitation and Data Minimization. Among its

various provisions, the DPDP Act has specified provision for processing of the personal data outside India, which are crucial for enhancing cyber security and facilitating economic growth. The Central Government may, by notification, restrict the transfer of personal data by a Data Fiduciary for processing to a foreign country or territory. The Committee have been further apprised that CERT-In is actively involved in monitoring cyber threats, incident reporting, and issuing security advisories to protect digital infrastructure. Cyber security skilling initiatives are being expanded through NIELIT, C-DAC etc. to equip the workforce with the latest knowledge in data protection and cyber security. In view of the aforesaid, the Committee feel that while the ITA promotes digital trade, there is a growing need to balance openness with a cautious approach and adequate safeguards. The Committee foresee the need for developing robust cyber security policies, invest in secure digital infrastructure, and promote indigenous technology development to address the risks posed by unrestricted IT imports. Revisiting the ITA to include data protection norms and cyber security standards should also be considered. The Committee, therefore, strongly recommend enforcing the existing provisions of the Digital Personal Data Protection Act (DPDP Act) at the earliest and Rules to tighten the Cyber security and ensure data protection in India in letter and spirit. Besides, mandatory testing and certification of such devices/equipment through accredited testing labs, regulatory compliance and strict security standards need to be strengthened and enforced.

Inadequate focus on R&D and Innovation

8. The Committee note that India's trade deficit in IT/Electronics manufacturing sector is due to inadequate focus and abysmally low investment in R&D and Innovation in the country for which a robust electronics manufacturing ecosystem is also lacking. Domestic manufacturers in India have often struggled to invest in Research and Development (R&D) and innovation. While international companies have invested significantly in R&D and have more advanced technologies, Indian companies face challenges in competing with foreign companies due to limited access to capital and lower technological capabilities. The focus has often been more on assembly and low-end manufacturing rather than on high-value, innovative products. The Indian market has been quickly flooded with imported IT goods, limiting space for local firms to scale or invest in R&D. The Committee suggest that India needs to define longer-term plans for dynamic and selective use of tariff policy in order to support and strengthen innovative technologies and capacities in the IT/electronics sector. The Ministry of Electronics and Information Technology, Ministry of Commerce and Department of Telecom should consider to seek regional complementarities and possibilities for nurturing regional production chains in the area of IT products, and establish cooperation mechanisms with foreign companies and multinationals that guarantee transfer of technology and know-how and

contribute to local content development. The Committee opine that investments in R&D should be a major area of focus for regulatory bodies, operators and private players alike. Continued efforts to improve and implement "design-led manufacturing" will have a major impact in future technologies. The Committee, therefore, earnestly recommend to focus on investments in R&D and Innovation which is key instrument in accelerating growth of exports in ICT/Electronics trade. They urge the Ministry of Electronics and Information Technology, Ministry of Commerce and Department of Telecom to allocate sufficient funds for R&D and make sincere efforts to attract private investments in R&D and innovation.

Environmental and sustainability challenges due to alarming E-Waste

9. The Committee observe that E-Waste or electronics waste poses serious environmental and sustainability challenges. E-waste contains hazardous substances which causes toxic pollution. The Improper disposal contaminates soil, water and air, affecting ecosystems and human as well as animal health. The increased consumption of IT products, partly driven by the ITA, has contributed to the global e-waste challenge. The Committee sought the Ministry of Electronics and Information Technology to give details of the recent progress made in disposal of E-waste. The Ministry have submitted that the ITA has indeed contributed to the global e-waste challenge by increasing the consumption of IT products. However, it has also opened markets for green technologies, such as energy-efficient devices and recycling equipment due to access to world class products. While E-waste related policies are carried out by the Ministry of Environment, Forest & Climate Change, the R&D related issues are taken care of by Ministry of Electronics & Information Technology. Government of India has notified E-Waste (Management) Rules, 2022 with an aim to digitize the e-waste management process and enhance visibility.

The Committee recommend the Ministry of Electronics and Information Technology to coordinate with all stakeholders for strengthening E-Waste Management laws and enforce stricter implementation of e-waste rules and investing towards green technologies thus encouraging wide spread use of energy efficient devices for recycling of IT/Electronics products. The Committee, further urge the Ministry to promote formal recycling infrastructure and investment in recycling units. There is a need to integrate informal sectors i.e. informal waste collectors into the formal system to ensure safe handling of health hazardous e-waste and need for launching public awareness campaigns on the hazards of e-waste and proper disposal. The Committee further recommend to encourage manufacturers to design eco-friendly and easily recyclable equipment and provide incentives for recycling through tax benefits, subsidies, or PLIs to businesses and startups engaged in e-waste recycling. In this regard, the concerned Ministries/Departments should also promote R&D, encourage Start

Ups to achieve the desired objectives and promote sustainable and responsible electronics consumption.

Government's Initiatives for boosting Domestic Manufacturing - Production Linked Incentive (PLI) Scheme, Phased Manufacturing Programme (PMP) and Make in India

10. The Committee observe that in response to import dependence of India and flooding of cheap imports, Government of India has launched several initiatives/schemes during recent years to encourage, promote and boost domestic industries, domestic manufacturing and generate employment in the country. The Ministry of Electronics and Information Technology while providing details regarding Government Initiatives to boost local manufacturing in response to the challenges posed by the ITA submitted that the Indian Government has launched the '*Phased Manufacturing Programme (PMP)*' in 2015 to encourage domestic production of mobile phones and their components. Under this programme, tariffs were reintroduced on specific components while exempting others to gradually build local capabilities in stages. In 2020, the Government introduced the '*Production-Linked Incentive (PLI) Scheme*' to incentivize large-scale manufacturing in India by offering financial incentives for increasing domestic production. This was part of India's broader strategy to reduce its dependence on imports and become a hub for electronics manufacturing, especially in sectors like mobile phones and its components. The Government has also launched PLI scheme for IT hardware to promote the domestic manufacturing of Laptops, Tablets, Servers etc. Under the Production-Linked Incentive (PLI) scheme, foreign companies also drive large-scale production and exports, benefitting from financial incentives that reward higher output. Their integration into global value chains boosts India's export potential and competitiveness, making them crucial partners in India's ambition to become a global electronics manufacturing hub. The PLI Scheme 2.0 for IT Hardware has attracted global players like Dell and HP by offering an average incentive of around 5% on net incremental sales of goods manufactured in India for a period of six years. During its tenure the scheme is expected to lead to a total production of INR 3.35 lakh crore, bring in an investment to the tune of INR 2,430 crore and create 75,000 direct jobs.

On a query about funds reserved under PLI scheme for creating an ecosystem of R&D and innovation, the Ministry of Electronics and Information Technology submitted that under PLI Scheme 2.0 for IT Hardware, no dedicated fund is explicitly reserved for R&D and innovation. However, R&D is indirectly supported as expenditure incurred on R&D and technology transfer is considered as eligible investment under the scheme. During the evidence, the Department of Telecommunications apprised of the Committee that since introduction of the PLI

scheme, the Country had a significant increase in the volume of telecom equipment exports and the telecom equipment import has reasonably stabilized.

The Ministry has also apprised of the Committee that the Government has taken initiative of '*Semicon India*' to promote manufacturing of semiconductors in the country. Further, under the '*Make in India*' initiative, the Government has been working to attract global companies to set up manufacturing facilities in India. Government has a vision to position India as a global hub for Electronics System Design and Manufacturing (ESDM) and create an enabling environment for the industry to compete globally.

The Committee note that under the 'Make in India' initiative, the Government has been working to attract global companies to set up manufacturing facilities in India. The Ministry of Electronics and Information Technology upon being asked to explain how the presence of foreign companies will boost the manufacturing strength of items enlisted under ITA submitted that the presence of foreign companies can significantly enhance India's manufacturing capabilities for ITA-listed items by bringing in advanced technology, investment, global supply chain integration and best practices. Aligned with the Phased Manufacturing Programme (PMP), these firms help localize production by moving from basic assembly to high-value component manufacturing, fostering skill development and supply chain growth. The Committee, appreciate the initiatives taken and efforts made by the Government to encourage and boost the domestic manufacturing and generate employment in the country. However, the Committee feel that efforts of the Government need more impetus for an effective and quantifiable outcome in terms of increasing volume of exports of IT/Electronics products thus resulting in sufficient revenue generation for the Country. The Committee, therefore recommend for launching of more such Schemes and initiatives by the Government for different sectors and an effective monitoring and implementation of all existing schemes/initiatives/programmes i.e. PLI, PMP, Make In India, Semicon India etc. by the respective Ministries to create an effective manufacturing ecosystem in India by way of ensuring streamline regulations, improved infrastructure and suitable R&D support.

INDIA'S STAND ON ITA, NEED FOR REVIEW OF ITA & WAY FORWARD

India's Stand on ITA and Need for a balanced strategic approach on ITA in WTO to secure National Interests

11. The Committee observe that India's experience with the ITA has been most discouraging, which almost wiped out the IT/Electronics industry from India. India had signed the ITA agreement which was based on HS 1996. The domestic electronics industry was at a nascent stage despite the fact the ITA products were

imported at zero duty. Moreover, we are still struggling at WTO in the context of ICT disputes filed against India by countries like Japan, Chinese Taipei and European Union. In this context, on being enquired to elaborate on India's ITA dispute in WTO and provide details of ITA 2.0 w.r.t signatory Member States, new products coverage, review mechanism and exit clause, the Ministry of Electronics and Information Technology submitted that the ITA-2 finalized in 2015, was signed by 54 WTO member countries, including major economies like the United States, China, European Union etc. ITA 2.0 covers a broader range of advanced ICT products, such as advanced semiconductors, GPS devices, medical equipment like MRI machines, optical lenses etc. There is review mechanism for product coverage in the light of technological developments, experience in applying the tariff concessions, or changes to the HS nomenclature. However, there is no specific exit clause in ITA-2. The details of ITA dispute may be seen *vide* Annexure-IX. The Committee, further asked the Ministry to provide the current status of rectification schedule filed by India and the ICT disputes filed against India by some countries and whether India was poised to sign ITA-2 in near future. The Ministry furnished the information that the rectification request filed by India is under reservation at WTO. The European Union (DS582), Japan (DS584) and Chinese Taipei (DS588) had filed ICT dispute against India in WTO. The disputes are understood to be significant as they relate to India's policy space on levying duties on IT products. The WTO Dispute Settlement Body (DSB) has given rulings against India.

The Committee note that unlike ITA-1, the ITA-2 includes products without established six-digit HS classifications, making it difficult for developing countries to anticipate future trade implications. The products covered under attachment B create ambiguity as the HS codes are not clearly defined. When the Committee desired to know about India's stand on ITA 2.0 along with the way forward on ITA agreement for India now, the Ministry of Electronics and Information Technology stated that in light of the learning from India's experience with the ITA 1.0, it has been decided not to participate in the ITA expansion negotiations to build a sound manufacturing environment in the field of Electronics and Information Technology.

The Committee note that India's decision not to participate in ITA-2 might also affect its ability to shape future ITA negotiations, potentially deterring international investors from expanding their presence in the Indian market. When asked how the Ministry views this decision in wake of massive transformations expected in IT hardware/electronics manufacturing due to advent of Artificial Intelligence, the Ministry of Electronics and Information Technology have submitted that the ITA-2 covers 201 products like newer generation semiconductors, GPS systems, medical devices, and next-gen electronics. India chose not to join ITA-2, citing concerns over erosion of its domestic electronics manufacturing base, the need to maintain tariffs for "infant industry" protection.

Not joining ITA-2 does not affect India's future negotiating positions. On the other hand, by not joining ITA-2, India retains its policy flexibility of levying or withdrawing tariff either through multilateral means or through bilateral approach. Further, for promotion of manufacturing, India has taken a calibrated approach and provided need-based exemption from Basic Customs Duty (BCD) on import of capital goods/ inputs even for non-ITA goods. The Government has notified various incentive schemes to attract global companies to set up manufacturing facilities in India which may be seen *vide* Annexure-II. Further, when the Committee desired to be apprised about the likely implications on the trade relations of India with other countries if India considers opting out of ITA Agreement at WTO and prefers signing of Bilateral/multilateral Trade Agreements/FTAs with other nations as per its national interests, the Ministry of Electronics and Information Technology submitted that practically it is difficult to opt out from ITA. However, in case India considers opting out of ITA, it may have to face retaliation from the WTO members.

In view of the aforesaid, the Committee recommend that India needs to have a balanced, developmental, calibrated, cautious and strategic approach towards ITA in WTO, not only preferring to encourage and protect its domestic electronics manufacturing industries but also inclining towards a futuristic approach with caution for an equitably poised global integration with national interests, thus pushing for safeguards, special and preferential treatment for developing countries under ITA-2.0 before joining, while continuing our efforts to sign FTAs with other countries in mutual interests. In view of the bitter experience after signing of ITA-I, India should make a thorough assessment of potential benefits and drawbacks before signing ITA-2.0 considering its economic ramifications and consequent effects on strategic long-term interests.

Need for review of ITA in view of rapid convergence of ICT, 5G and AI automation

12. ITA has played a transformative role in shaping global trade in information technology products since its inception. As we move into a new age marked by advancements in AI, 5G, block chain, and other emerging technologies, the impact of ITA is still evolving. Further, the availability of more affordable computing power and sensors has accelerated AI research, adoption and automation, making AI-driven technologies more accessible globally. The telecommunications equipment covered under the ITA has enabled faster deployment of 5G networks and better connectivity, revolutionizing industries like healthcare, manufacturing sector, and transportation. The ITA also has facilitated the growth of Internet of Things (IoT) Devices by lowering costs of sensors, networking hardware, and other essential components, leading to a more connected world.

The Committee observe that Information and Communication Technology (ICT) Convergence is the buzzword today wherein telecommunications, computing, media, and electronics are deeply interconnected. The lines between hardware and software, or IT and telecom, have blurred. The ITA's traditional focus on standalone hardware no longer reflects this converged digital ecosystem. The Committee note that technologies like 5G, Artificial Intelligence (AI), Internet of Things (IoT), and cloud computing were not fully developed or envisioned when the original ITA was framed. Many of the products and components critical to these technologies are not covered under current ITA schedules apart from the absence of adequate Trade Coverage Gaps. Many modern digital and smart devices and critical inputs like semiconductors, sensors, software-embedded goods, and AI processing chips are either not covered or ambiguously classified, creating loopholes and inconsistencies in trade rules. The Committee, therefore, observe that rapid pace of technological evolution and convergence demands a timely review and revision of the International Trade Agreement.

When ascertained by the Committee whether commitments made pursuant to more than two decades old ITA are sufficient to handle today's commercial realities, the Ministry of Electronics and Information Technology has admitted that the ITA, while historically successful in promoting trade in traditional IT products, is no longer sufficient to handle the challenges posed by the current ICT landscape. The Ministry has emphasized that the rapid convergence of technologies, the shift towards digital services, and the rise of new regulatory challenges demand that the ITA be revisited and updated to reflect the modern digital economy. In this regard, the Committee further asked the Ministry of Electronics & information Technology to apprise it of the initiatives being taken to preserve the policy space for emerging areas of Information and Communication Technology, such as Artificial Intelligence, the non-Tariff barriers, restrictive regulatory practices and predatory pricing at WTO. The Ministry in response have submitted that the rapid convergence of the information technologies has created a big challenge to the existing legal and regulatory regime. In the area of international trade, these unprecedented and unpredictable challenges in the ICT industry and market have demonstrated that what used to work in the past to determine tariffs may no longer be the right approach for trade in future. India regularly raises Specific Trade Concerns (STCs) in WTO Technical Barrier to Trade (TBT) Committees, targetting unjustified Technical Barrier to Trade, and procedural barriers imposed by other nations. The Committee note that the Government has notified orders like Compulsory Registration Orders (CRO) and Mandatory Testing and Certification of Telecom Equipment (MTCTE) to improve the quality of the domestic produce for global competitiveness and to ensure that domestically produced products are safe, secure and are of good quality.

In view of the above, the Committee feel the urgent need for review of ITA for securing our domestic industry and the economic interests of India. The Committee, therefore, recommend that a comprehensive review of the ITA is the need of the hour to keep pace with the digital revolution, ensuring the relevance and fairness of trade rules, and promoting inclusive growth in the global digital economy. The Committee urge the concerned Ministries and Departments to raise these key concerns at WTO forum in right earnest for Inclusion of 5G equipment, AI components, and software-based products under ITA ambit and also for clear classification for hybrid digital products, new HS line coding, mechanisms for technology transfer and digital inclusion; and seek for environmental protection and ethical safeguards in IT/electronics trade at global level.

FTAs at Bilateral levels and South-South Cooperation - An alternative to ITA

13. The Committee observe that many developing and least-developed countries (LDCs) in the Global South have common interests in building digital capacity, fostering innovation, and ensuring equitable participation in the global IT trade. Therefore, a need is felt for South-South Cooperation due to shared development Goals. South-South cooperation allows them to align strategies and work toward these shared objectives. Developing countries can support each other through technical assistance and capacity building, training programmes, technology transfer, and joint research initiatives to strengthen their positions within the ITA framework. South-South collaboration strengthens collective bargaining power, enabling them to negotiate in better terms in trade agreements like ITA. The Committee note that trade liberalisation as envisaged under the ITA, may not enable developing countries to enjoy the fruits of ICT revolution. India's membership in the ITA has brought certain disadvantages, primarily due to its binding zero-tariff commitments leaving India as a net importer with limited gains in domestic capability or global competitiveness. These have led to a surge in cheap IT imports, especially from China and ASEAN countries, widening India's electronics trade deficit and stifling the growth of domestic manufacturers. The Committee when asked whether the dispute on ITA-1 is becoming a hurdle in India's negotiation for Free Trade Agreements (FTAs) and whether any positive alternatives are available with India for opting out of ITA-1 and adopting FTAs at bilateral and multilateral levels, the Ministry of Electronics and Information Technology furnished the reply that ITA and FTA were two different types of agreements. EU, Chinese Taipei and Japan have filed dispute in WTO against India. But India has already concluded FTA with Japan and UK, and negotiation with EU is going on. The Ministry have further stated that a participating member of the ITA under the WTO cannot unilaterally "withdraw" its participation in the agreement, as the ITA is a Plurilateral Agreement negotiated within the Multilateral framework of the WTO by modifying the schedule of concessions of the Member country.

The Committee take a view that South-South cooperation is vital for creating a more inclusive and balanced global IT trade framework under the ITA. It empowers developing countries to leverage technology for growth, digital transformation, and sustainable development. This is an appropriate time to work towards an e-South Framework Agreement aiming at bridging the digital divide through an integrated development of ICT sector within the framework of South-South cooperation drawing inspiration from the e-ASEAN Framework Agreement. The Committee observe that though, the Ministry of Electronics and Information Technology have submitted that "The "e-South Framework Agreement" is not a widely recognized term within the context of Indian international agreements, the positives of such cooperation, and FTAs at bilateral and multilateral levels with member countries of ITA needs be explored for mutually beneficial goals.

Need for Special & Preferential Treatment of Developing countries and a new Harmonised System (HS) for customs in ITA

14. The Committee observe that the Information Technology Agreement (ITA) under WTO promotes tariff elimination on IT products to foster global trade which appears beneficial in principle, but in reality, the developing countries face unique challenges that call for Special and Preferential Treatment within this agreement. Due to unequal technological capabilities most developing countries lack strong domestic IT industries. Immediate tariff elimination may flood their markets with imports, crushing nascent local industries and widening trade imbalances. Further, for many developing economies, tariffs are a key source of Government revenue. Eliminating tariffs on high-value IT/electronics products can lead to significant revenue losses, impacting public spending on development. The Committee feel that Special and Preferential Treatment clause in the ITA agreement is essential to address structural imbalances, promote inclusive development, and ensure that all WTO members, regardless of economic status, benefit fairly from IT trade liberalization. The flexibility in applying tariffs as an effective policy instrument to regulate imports of IT products may be needed by developing countries in its digital transformation plan. The Committee catechized the Ministry of Electronics and Information Technology whether there are any provisions of Special and Preferential Treatment of Developing countries in ITA-1 and whether a new Harmonized System (HS) for customs was required in ITA which should not tilt towards developed nations and whether a Zero duty on Parts Components Accessories will be beneficial for India and developing countries. In response, the Ministry of Electronics and Information Technology stated that there are no such provisions for Special and Preferential Treatment of Developing countries in ITA-1. Revision of HS codes is a dynamic process which undergoes revision/ updation after every 5 years and is largely related to product classification. Zero duty on components and parts result in

providing components and parts at a lower cost. Hence, it would be beneficial to any developing country which has necessary capital, technology and human resource to make products by assembling those parts.

The Committee observe that it would be extremely difficult for the developing and underdeveloped countries to compete with EU, Japan, China, USA and other developed countries in Global IT/Electronics manufacturing market due to their cheap products and highly advanced technology access and skills. There is need to bridge digital divide and filling Infrastructure Gaps in global trade for a fair participation and benefits. Generally, developing countries need to focus on building up their own production and export capacities in high-technology products. Accordingly, they need to design their longer-term plan for dynamic use of tariff policies in order to support such an objective. Strategic and temporary import substitution could be contemplated in cases where the objective is to leverage the sizeable domestic markets in order to develop domestic supply capabilities. Such an approach helps generate value addition and jobs while helping to moderate trade deficits. It is further felt that India may consider for a revision of ITA terms to reflect modern technological realities, transfer of technologies and ensure more equitable distribution of trade benefits. The Committee suggest that aligning tariff policies with global commitments while offering targeted incentives for domestic production can help India develop a robust electronics manufacturing base. The Committee feel that ITA primarily benefits few developed economies with established tech industries. Preferential treatment ensures that developing countries also get share in the benefits of global IT trade. The Committee, therefore, recommend that India may proactively engage in WTO negotiations for advocacy of Special and Preferential Treatment for developing economies and seek for a new Harmonised System in Customs in order to compensate them for the trade deficit in future ITA expansions.

Changing World Order due to Weakening of WTO and unilateral US tariffs announcements: ITA Review necessitated

15. The Committee observe that under current US Government the global politics has undergone drastic changes with many economically impacting decisions for the global world order. The US tariff policies have significantly altered the global trade landscape and contributed to a changing world order by rise of protectionism. US Government's "America First" policy emphasized protecting domestic industries by imposing tariffs, particularly on imports from China, the EU, Mexico, and Canada. This has marked a sharp departure from decades of free trade advocacy and signaled a shift toward economic nationalism. The most notable impact was the trade war with China.

The Committee take a note that current US administration has often bypassed or challenged multilateral institutions like the WTO. This has resulted in disruption and weakening of the authority of global trade frameworks and encouraged bilateral negotiations. This development is the disruption of the rule-based multilateral system that had been built after World War II following decades of negotiations. The shifts in global alliances are visible accelerating the shift toward a more multipolar global economic order. US tariff policies did not just impact trade balances, they symbolized a shift in global economic leadership and contributed to a more fragmented, competitive, and uncertain world order. The aftershocks of these policies continue to influence global economic relations today.

The Committee taking serious note of unilateral imposition of tariffs by USA on most countries raised query about steps/counter measures the Ministry was contemplating to take on this tariff war of USA. The Ministry of Electronics and Information Technology submitted that USA imposing 10 per cent universal tariff is its unilateral decision. And as far as India was concerned, 217 HS lines in 1996 have been eliminated. US has invoked the International Economic Emergency Security Act. This is the legal framework under which they have done it. They had passed an internal Act, the International Economic Emergency Security Act. This will have a big impact on the electronic sector. America imports electronic products worth about \$14 billion from India every year. With the implementation of this tariff, the competitiveness of Indian products will decrease, jobs may be lost and export-based products may suffer. The Ministry further stated that India is negotiating the Bi-lateral Agreement (BTA) with USA to protect the interest of the Indian industry.

The Committee, therefore, observe that global economic order as well as political landscape and balance of power in the world is undergoing drastic as well as unexpectedly fast changes today. In view of changing global order and changing economic trade relations across world, there is an opportunity for India to modify its ITA stand at WTO for securing its national interest i.e. protecting its domestic IT/Electronics and manufacturing industries from getting wiped out due to zero tariff regime under ITA. The Committee strongly feel that if USA can come out unilaterally from WTO obligations, India should also see it as an opportunity to further negotiate at WTO for favourable clauses under ITA and may also weigh in the options for an exit. In the current scenario, coming out of ITA seems to be quite plausible and a strong need for FTAs is felt at bilateral and multilateral levels between member countries in their mutual national interest. For India, the repercussions of the trade war could be graver than those feared earlier. The immediate impact is on financial markets, but global recessionary trends could worsen the outlook. The Committee feel that the wisest policy right now may be to conclude bilateral trade agreements with trading partners including the USA and

at the same time, other export markets also need to be explored as retaliatory tariffs are shifting the dynamics of international trade.

Constituting a High Level Inter-Ministerial Committee to examine the Impact of ITA on India and the Way Forward

16. The Committee note that ITA has made several impact on India's import-export of IT/Electronics products and services, manufacturing sector, local industries and posed several challenges of ICT convergence due to emerging technologies, cyber security and data protection challenges and E-waste challenges. On the positive side, while the ITA has helped India to access affordable IT hardware and supported the growth of its Software and IT services industry, access to high technology and global trade integration, it also had several adverse effects. On the negative side, domestic electronics manufacturing sector has suffered heavily due to an influx of duty-free imports, particularly from countries like China, which offered cheaper products, contributed to a widening trade deficit in electronics and hindered and hampered the development of a robust local electronics manufacturing ecosystem. There is need for an urgent review of ITA due to its outdated product list as it does not cover many new-age digital products like AI devices, wearables, Internet of Things (IoT) technologies and for keeping open a policy space for domestic industries growth as India's efforts under 'Make in India' and 'Production-Linked Incentive (PLI)' schemes require flexibility in tariff policy to protect and promote local industries.

The Committee observe that there have been asymmetric gains under ITA for India. The benefits of ITA have disproportionately favoured few exporting countries, while India has largely remained a consumer and assembly country of imported goods parts. The trade scenario created by the unilateral announcement of 50 percent tariffs on India and different increased tariffs on other countries of the world by US present both a challenge and an opportunity for India. The world trading order is changing fast and, therefore, India needs to undertake a proactive and well calibrated approach towards ITA. In view of the above, the Committee opine that there is a need to relook into the positives and negatives of ITA for India and examine in-depth the impact on electronics manufacturing ecosystem in India, ramifications and challenges on import-export of IT/Electronics goods and services and impact on overall trade interests of India. The Committee, therefore, recommend for constituting a High Level Empowered Inter-Ministerial Committee consisting of all Ministries/Departments/Organizations concerned with ITA i.e. Ministry of Electronics & Information Technology, Ministry of External Affairs, Ministry of Commerce and Industry, Ministry of Finance etc. and other stakeholders to holistically examine in-depth the impacts of ITA 1.0 and 2.0 on Indian IT industry and possible implications/ramifications for India in future, and suggest the way forward in the economic and strategic interests of our country

keeping in view the changing world economic order and shifting alliances across the globe.

New Delhi;
11 September, 2025
20 Bhadra, 1947 (Saka)

DR. NISHIKANT DUBEY,
Chairperson,
Standing Committee on
Communications and Information Technology.

Impact of ITA on ICT Industry

The Information Technology Agreement (ITA) has significantly impacted the ICT industry by promoting free trade and economic growth through tariff reductions on IT products. This has resulted in lower costs for importing hardware, software, and other IT-related products, enhancing competitiveness for companies like India, particularly in the global market. The ITA also fosters increased use of ICT goods, which can lead to higher productivity and economic growth, while also enabling companies to participate more fully in global value chains for ICT production and services. Some major impacts are as follows:

(A) Overall impact

(a) Reduced Trade Barriers and Increased Competitiveness:

- The ITA of WTO aims to eliminate or significantly reduce tariffs on a wide range of ICT products.
- This reduction in tariffs lowers the cost of imported ICT products for businesses, making them more affordable and accessible.
- Lower costs allow businesses to compete more effectively in the global market, potentially leading to increased exports and market share.

(b) Increased Use of ICT and Productivity Gains:

- The lower costs of ICT products due to the ITA lead to a higher demand and increased use of these products in businesses and by individuals.
- This increased use of ICT can lead to significant productivity gains, as businesses can automate tasks, improve operations, and leverage new technologies.
- The increased use of ICT also supports economic growth by broadening the reach of technologies like high-speed internet and mobile broadband.

(c) Deepening Global Value Chains:

- The ITA encourages participation in global value chains (GVCs) for the production of ICT goods and services.
- This means that businesses can source parts and components from different countries, leading to more efficient production and lower costs.

- By participating in GVCs, businesses can access new markets and technologies, further enhancing their competitiveness.

(d) Impact on Emerging Economies:

- The ITA can be particularly beneficial for developing countries, as it allows them to access affordable and high-quality ICT products, fostering innovation and economic growth.
- By reducing trade barriers, the ITA helps emerging economies to integrate more fully into the global economy.

(B) Impact on the growth of India's IT, electronics and hardware manufacturing sector

- India, has seen considerable impact on its domestic ICT manufacturing capabilities and import dependence on certain products and electronics components, particularly from China.
- The WTO report indicates that the top three exporters of ITA products in 1996 were the EU, USA, and Japan enjoying a share of 31%, 20%, and 15% respectively while China had only a 2% share. However, in 2015, China acquired the top position and had 33% while the share of the EU and USA shrank and became 16% and 9% respectively. It reveals that the major beneficiary of the ITA is China. China officially joined the WTO's ITA in 2003. While China was already benefiting from the ITA as a member of the WTO since 2001, its formal accession to the ITA itself took place in 2003.
- Where the position of India is concerned, India joined the ITA on 25th March 1997 while in 1996, it was even not listed on the list of major exporters of ITA products, however, in 2015, it registered a 0.1% share in the list of major exporters of ITA products. However, due to the key initiatives of the government, the export has been showing an increasing trend.

Steps taken in Electronics Sector**1. Scheme and Programs**

1.1. Modified Program for Development of Semiconductors and Display Manufacturing Ecosystem: To widen and deepen electronics manufacturing, the Union Cabinet, on 15.12.2021, approved a comprehensive program with an outlay of INR 76,000 crore for the development of Semiconductors and Display manufacturing ecosystem. With the approval of the Cabinet, this Programme was modified on 21.09.2022. The modified programme offers Fiscal Support of 50% of Project Cost uniformly for semiconductor fabs across the technology nodes as well as for compound semiconductors, packaging and other semiconductor facilities.

The following fiscal incentives are now available to eligible applicants:

- **Modified Scheme for setting up of Semiconductor Fabs:** It provides fiscal support for setting up semiconductor wafer fabrication facilities in the country. Fiscal support of 50% of the Project Cost is available for setting up of silicon-based semiconductor fabs across all technology nodes.
- **Modified Scheme for setting up of Display Fabs:** It provides fiscal support for setting up TFT LCD / AMOLED based display fabrication facilities. It provides fiscal support of 50% of Project Cost.
- **Modified Scheme for setting up of Compound Semiconductors / Silicon Photonics /Sensors Fab/ Discrete Semiconductor Fabs and Semiconductor ATMP / OSAT facilities in India:** It provides a fiscal support of 50% of the Capital Expenditure to the eligible applicants for setting up of Compound Semiconductors / Silicon Photonics (SiPh) / Sensors (including MEMS) Fab/ Discrete Semiconductor Fabs and Semiconductor ATMP / OSAT facilities in India.
- **Modernization of Semi-Conductor Laboratory:** Government has also approved modernization of Semi-Conductor Laboratory, Mohali to enhance efficiency and cycle time.
- **Design Linked Incentive Scheme:** It offers financial incentives, design infrastructure support across various stages of development and deployment of semiconductor design for ICs, Chipsets, SoCs, Systems & IP Cores and semiconductor linked design. The scheme provides both “Product Design Linked Incentive” and “Deployment Linked Incentive”.

1.2. Production Linked Incentive Scheme (PLI) for Large Scale Electronics Manufacturing: It was notified on April 01, 2020 to provide an incentive of 3% to 6% to eligible companies on incremental sales (over base year) involved in mobile

phone manufacturing and manufacturing of specified electronic components, including Assembly, Testing, Marking and Packaging (ATMP) units.

- 1.3. Production Linked Incentive Scheme (PLI) for IT Hardware:** It was notified on March 03, 2021 to provide an incentive of 4% to 2% / 1% on net incremental sales (over base year) of goods manufactured in India and covered under the target segment, to eligible companies, for a period of four (4) year. The Target Segment under PLI Scheme includes (i) Laptops (ii) Tablets (iii) All-in-One PCs and (iv) Servers.

Further Production Linked Incentive Scheme (PLI) for IT Hardware 2.0 was notified on May 29, 2023 with a budgetary outlay of Rs. 17,000 crore provides an average incentive of around 5% on net incremental sales (over base year) of target segment products for a period of 6 years. The target segment products include Laptops, Tablets, All-in-One PCs, Servers and Ultra Small Form Factor. 1.

- 1.4. Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS):** It was notified on April 01, 2020 to provide financial incentive of 25% on capital expenditure for the identified list of electronic goods that comprise downstream value chain of electronic products, i.e., electronic components, semiconductor / display fabrication units, ATMP units, specialized sub-assemblies and capital goods for manufacture of aforesaid goods.

- 1.5. Electronics Component Manufacturing Scheme:** The Scheme was notified on 8.4.2025 to provide incentives to promote the domestic mfg of components and capital goods.

- 1.6. Modified Electronics Manufacturing Clusters (EMC 2.0) Scheme:** It was notified on April 01, 2020 to provide support for creation of world class infrastructure along with common facilities and amenities, including Ready Built Factory (RBF) sheds / Plug and Play facilities for attracting major global electronics manufacturers along with their supply chain to set up units in the country. The Scheme provides financial assistance for setting up of both EMC projects and Common Facility Centres (CFCs) across the country.

- 1.7. Electronics Manufacturing Clusters (EMC) Scheme:** Electronics Manufacturing Clusters Scheme was notified on 22nd October, 2012 to provide support for creation of world-class infrastructure along with common facilities and amenities for attracting investment. The scheme was open to receive applications for a period of five years from the date of its notification i.e., upto October, 2017. Further period upto 21st October, 2024 is available for disbursement of funds to the approved projects.

1.8. Modified Special Incentive Package Scheme (M-SIPS): The scheme was notified on 27th July, 2012 to provide financial incentives to offset disability and attract investments in the electronics manufacturing sector. It was amended in August, 2015 to extend the period of the scheme, enhance scope of the scheme by including 15 more product verticals, and attract more investment. The scheme was further amended in January, 2017 to expedite the investments. The scheme provides subsidies for capital expenditure - 20% for investments in Special Economic Zones (SEZs) and 25% in non-SEZs. The incentives are available for 44 categories / verticals of electronic products and components covering the entire electronics manufacturing value chain. The scheme was open to receive applications till 31.12.2018 and is in implementation mode.

2. Other Initiatives

2.1. Electronics Development Fund (EDF): Electronics Development Fund (EDF) has been set up as a “Fund of Funds” to participate in professionally managed “Daughter Funds” which in turn will provide risk capital to startups and companies developing new technologies in the area of electronics and Information Technology (IT).

2.2. 100% FDI:As per extant Foreign Direct Investment (FDI) policy, FDI up-to 100% under the automatic route is permitted for electronics manufacturing (except from countries sharing land border with India), subject to applicable laws / regulations; security and other conditions.

2.3. Phased Manufacturing Programme (PMP) has been notified to promote domestic value addition in mobile phones and their sub-assemblies / parts manufacturing. As a result, India has rapidly started attracting investments into this sector and significant manufacturing capacities have been set up in the country. The manufacturing of mobile phones has been steadily moving from Semi Knocked Down (SKD) to Completely Knocked Down (CKD) level, thereby progressively increasing the domestic value addition.

2.4. Simplifying the Visa Issuance process for PLI sector:The Government has revised and expanded the issuance of PLI business visa for electronic manufacturing from PLI approved companies to any company falling under the PLI sector. Further, the process to apply for a PLI business visa has been made completely online.

- 2.5. Tariff Structure** has been rationalized to promote domestic manufacturing of electronic goods, including, inter-alia, Cellular mobile phones, Televisions, Electronic components, Set Top Boxes for TV, LED products and Medical electronics equipment.
- 2.6. Exemption from Basic Customs Duty on capital goods:** Notified capital goods for manufacture of specified electronic goods are permitted for import at “NIL” Basic Customs Duty.
- 2.7. Simplified import of used plant and machinery:** The import of used plant and machinery having a residual life of at least 5 years for use by the electronics manufacturing industry has been simplified through the amendment of Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016, vide Ministry of Environment, Forest and Climate Change Notification dated 11.06.2018.
- 2.8. Relaxing the ageing restriction:** The Department of Revenue vide Notification No.60/2018-Customs dated 11.09.2018 has amended the Notification No.158/95-Customs dated 14.11.1995, relaxing the ageing restriction from 3 years to 7 years for specified electronic goods manufactured in India and re-imported into India for repairs or reconditioning.
- 2.9. Public Procurement (Preference to Make in India) Order 2017:** To encourage, “Make in India” and to promote manufacturing and production of goods and services in India with a view to enhancing income and employment, the Government has issued Public Procurement (Preference to Make in India) Order 2017 vide the Department for Promotion of Industry and Internal Trade (DPIIT) Order dated 15.06.2017 and subsequent revisions vide Orders dated 28.05.2018, 29.05.2019, 04.06.2020 and 16.09.2020. In furtherance of the aforesaid revised Order, MeitY has notified mechanism for calculating local content for 14 Electronic Products dated 07.09.2020 and 06.03.2024 viz., (i) Desktop PCs, (ii) Thin Clients, (iii) Computer Monitors, (iv) Laptop PCs, (v) Tablet PCs, (vi) Dot Matrix Printers, (vii) Contact and Contactless Smart Cards, (viii) LED Products, (ix) Biometric Access Control / Authentication Devices, (x) Biometric Finger Print Sensors, (xi) Biometric Iris Sensors, (xii) Servers, (xiii) Cellular Mobile Phones and (xiv) CCTV/VSS Systems, for procurement to be made from local suppliers.
- 2.10. Compulsory Registration Order (CRO):** MeitY has notified “Electronics and Information Technology Goods (Requirement of Compulsory Registration) Order, 2012” for mandatory compliance to ensure safety of Indian citizens by curbing import of substandard and unsafe electronic goods into India. The Order has been

renotified as “Electronics and Information Technology Goods (Requirement of Compulsory Registration) Order, 2021” as per the provisions of BIS Act, 2016.

The impact of the initiatives taken by the Government and achievements

Indian electronic manufacturing industry has undergone major transformation in the last couple of years with the host of initiatives and reforms. Government has taken several initiatives to promote electronics manufacturing and as a result, the electronic manufacturing is on high growth trajectory (domestic production of electronic items has increased substantially from INR 3.88 lakh crore (USD 60 Bn) in 2017-18 to INR 8.25lakh crore in 2022-23 (USD 101.9 Bn), growing at a Compound Annual Growth Rate-CAGR of 16.28%). The key drivers of growth are large domestic market, and availability of skilled talent and low-cost labour.

The Government's "Make in India" programme, launched in 2014, was designed to make India as the Global design and manufacturing hub by increasing domestic manufacturing and reducing India's dependence on the services sector, thereby imparting a healthy mix of contribution from all sectors to the Indian Economy. Another flagship initiative, "Digital India", also targets a substantial boost in the domestic manufacturing of electronics and aims at reducing India's dependence on imports in this important sector.

1. Production, Imports and Exports

The production, imports and exports of electronic goods for previous 6 years are presented below:

(Values in ₹crore)

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Production*	3,88,306	4,58,006	5,33,550	5,54,461	6,40,810	8,25,000	9,52,000
Imports**	3,40,901	4,01,450	3,85,081	3,99,374	5,49,713	6,20,752	7,27,664
Exports**	41,220	61,908	82,929	81,822	1,16,895	1,89,934	2,41,157

*Source:MeitY Annual Report,Industry Association for FY 2023-24

**Source:Directorate General of Commercial Intelligence and Statistics(DGCI&S)

- CAGRforProductionfromFY17-18toFY22-23:16.28%
- CAGRforImportsfromFY17-18toFY22-23:12.7%
- CAGRforExportsfromFY17-18toFY22-23:35.7%

Electronics manufacturing sector has several verticals in terms of its constituents. The production profile of the electronics sector for 2021-22 and FY 2022-23, based on the information provided by Industry Associations is as follows:

ProductSegment	FY21-22 (USDBn)	FY21-22 (INRCrore)	FY22-23 (USDBn)	FY22-23 (INRCrore)	FY23-24 (INRCrore)
MobilePhones	38	2,75,000	44	3,50,000	4,22,000
IT Hardware (Laptops, Tablets)	4	29,801	4	37,291	41,395
Consumer Electronics (TV, Audio, Accessories)	10	74,503	12	99,442	1,07,627
StrategicElectronics	4.25	31,664	4.75	39,363	45,534
IndustrialElectronics	11	81,953	11.75	99,442	1,03,487
Wearables&Hearables	0.25	1,863	1	10,359	20,697
PCBA	0.6	4,470	1	-	-
AutoElectronics	7	52,152	9.5	62,151	66,378
LEDLighting	2.5	18,626	3	24,861	28,976
ElectronicComponents	9.5	70,778	10.75	82,868	86,929
Electronics Manufacturing	87.1	6,40,810	102	8,22,350	9,52,000

Source: Industry Associations

Note: Telecom Equipment, Medical Equipment and other Equipment having electronic content have not been taken into consideration.

As per DGCI&S data, import of electronic goods has increased from ₹ 5,49,713 crore in 2021-22 to ₹ 6,20,752 crore in 2022-23. It is seen that growth rate of imports of finished goods have declined and that of electronic components have grown up indicating setting up of manufacturing units of electronic products in the country.

As per the data provided by DGCI&S, the export of electronic goods has increased from ₹ 1,16,895 crore in year 2021-22 to ₹ 1,89,934 crore in year 2022-23. Government has taken several measures for the growth of the exports of electronics hardware sector. Special Economic Zones (SEZs) are set up to enable hassle-free manufacturing and trading for export purposes and EHTP units are the major contributors to exports.

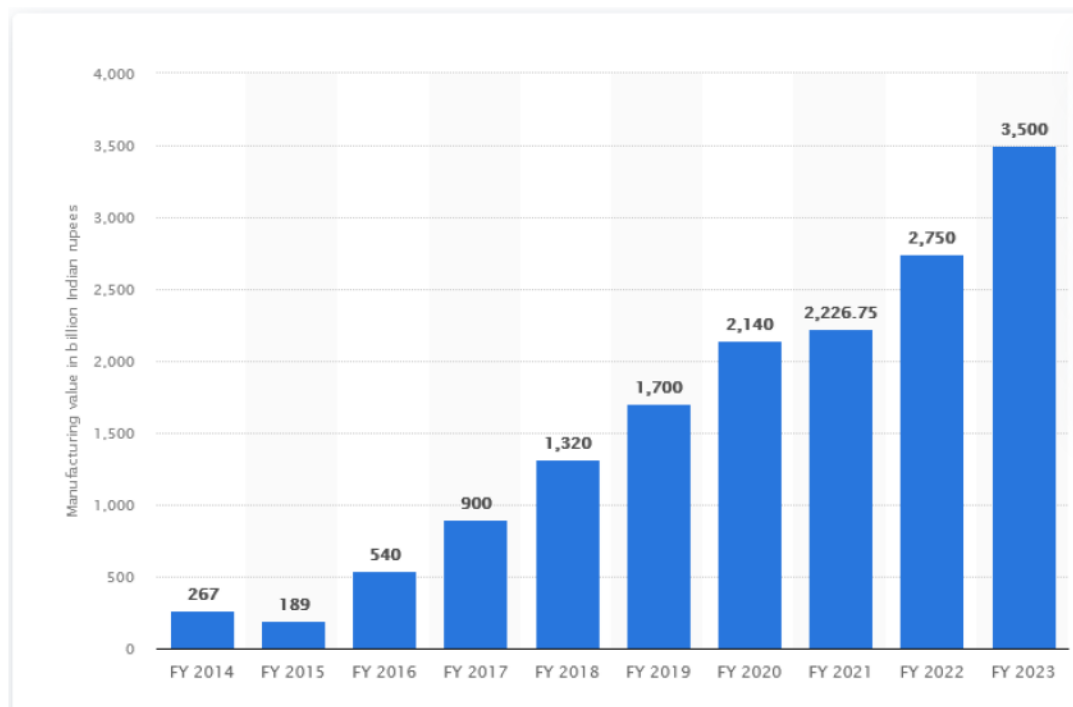
2. Key achievements in mobile phone manufacturing

Phased Manufacturing Programme (PMP) has been notified by MeitY to promote domestic value addition in mobile phones and sub-assemblies / parts / sub-parts thereof. As a result of the PMP and other Schemes of Government inter-alia including Production Linked Incentive Scheme (PLI) for Large Scale Electronics Manufacturing, India has rapidly started attracting investments into this sector and significant manufacturing capacities have been set up in the country. The manufacturing of mobile phones has been steadily moving from Semi Knocked Down (SKD) to Completely Knocked Down (CKD) level, thereby progressively increasing the domestic value addition.

The key achievements in mobile phone manufacturing sector are as under:

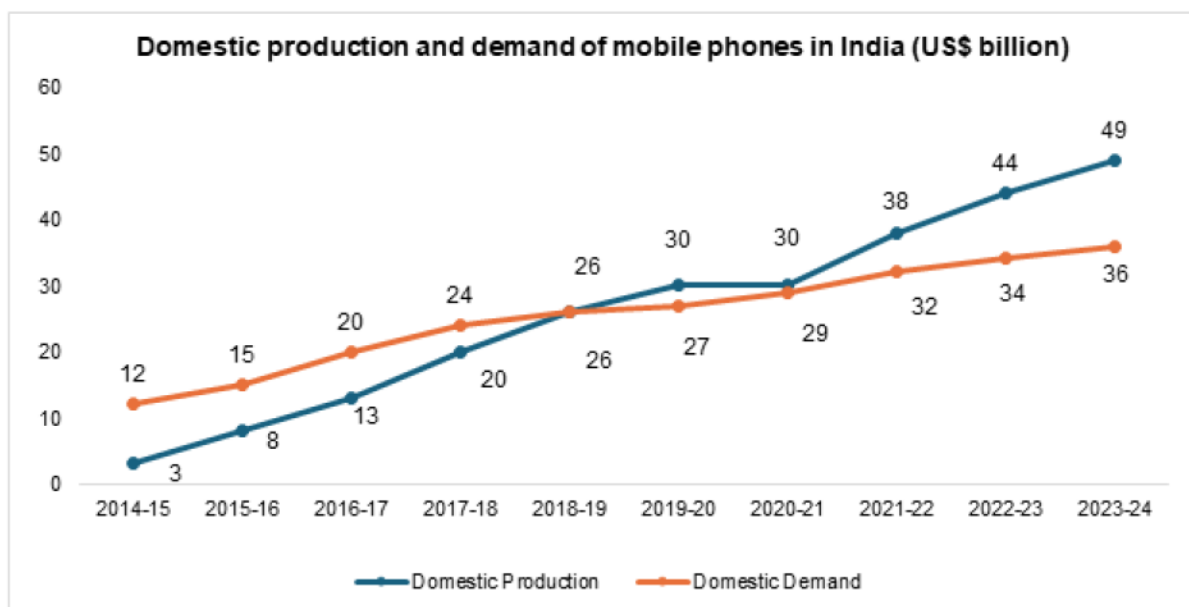
- India has emerged as the **2nd largest manufacturer of mobile phones** in the world in volume terms.
- **Over 200 units** are manufacturing cellular mobile phones and parts / components thereof in the country, **up from only 2 units in 2014**.
- **Production** of mobile phones has grown from **INR 18,900 crore** in FY 2014-15 to **INR 4,22,000 crore** in FY 2023-24, as per industry estimates.
- **Export** of mobile phones has grown from **INR 1,566 crore** in FY 2014-15 to **INR 1,29,074 crore** in FY 2023-24, as per industry estimates.
- Employment (direct and indirect) in mobile phone manufacturing ecosystem is around **12 lakh** persons, as per industry estimates.

Value of mobile phone production in India from financial year 2014 to 2023 (in billion Indian rupees) and domestic production and demand of mobile phone in India are shown in the Fig. 1 and Fig. 2 respectively while Fig. 3 indicates a comparative data of export w.r.t.China and Vietnam.



Source: Statista: <https://www.statista.com/statistics/809557/india-domestic-mobile-phone-manufacturing-value/>.

Figure 1



Source: ICEA in <https://www.ibef.org/blogs/india-s-rise-as-the-second-largest-smartphone-manufacturer>. Accessed on 28.02.2025.

Figure 2



Source: International Trade Centre in <https://www.ibef.org/blogs/india-s-rise-as-the-second-largest-smartphone-manufacturer>. Accessed on 28.02.2025.

Figure 3.

- The Indian IT/ ITeS industry has a leading position globally and has been progressively contributing to the growth of exports. The details as provided by NASSCOM are as under.

	2019-20	2020-21	2021-22	2022-23	2023-24
Exports	147	152	178	194	199.5
Domestic	44	45	49	51	54.4
Total Revenue	191	196	227	245	254
YoY Growth %	7.90%	2.09%	15.5%	7.9%	3.7%

Compiled Data Import-Export StatisticsSource: Trade Data
MonitorEconomy: India
Trade: Imports
Product: ITA1

		2024	2023	2022	2021	2020
		% Share of Millions US \$83,592.90	% Share of Millions US \$84,775.91	% Share of Millions US \$73,486.25	% Share of Millions US \$71,416.83	% Share of Million s US \$52,82 5.81
1	World	100	100	100	100	100
2	China	42.04	39.75	40.28	48.68	43.85
3	Hong Kong, China	11.09	12.38	11.9	14.49	16.1
4	European Union	8.35	12.02	10.28	5.72	6.11
5	Singapore	7.61	7.74	8.43	7.37	7.87
6	Chinese Taipei	7.44	5.57	5.44	3.15	2.87
7	Viet Nam	4.96	4.71	4.65	4.33	6.15
8	Korea, Republic of	4.89	4.27	5.1	3.79	3.95
9	United States of America	4.29	3.76	4	3.42	3.89
10	Malaysia	2.3	2.44	2.38	1.98	1.99
11	Japan	1.99	2.09	2.03	1.67	1.88
12	Thailand	1.58	1.5	1.74	1.15	1.29
13	United Kingdom	0.66	0.64	0.62	0.62	0.73
14	Mexico	0.6	0.64	0.47	0.32	0.62
15	Israel	0.51	0.56	0.57	0.63	0.85
16	Philippines	0.36	0.42	0.4	0.31	0.33
17	Switzerland	0.3	0.32	0.31	0.29	0.37
18	United Arab Emirates	0.28	0.22	0.56	0.9	0.42
19	Indonesia	0.21	0.23	0.21	0.17	0.16
20	Canada	0.17	0.23	0.14	0.12	0.14

Economy: India

Trade: Exports

		2024	2023	2022	2021	2021
		% Share of Millions US \$30,392.28	% Share of Millions US \$26,247.09	% Share of Millions US \$19,278.71	% Share of Millions US \$13,899.63	% Share of Millions US \$9,692.47
1	World	100	100	100	100	100
2	United States of America	33.56	34.44	22.37	18.98	19.57
3	European Union	27.2	22.91	28.69	20.33	21.3
4	United Arab Emirates	9.67	12.51	14.46	16.86	14.78
5	United Kingdom	5.38	5.16	5.06	5.22	3.55
6	Russian Federation	2.91	1.29	0.71	3.14	2.84
7	China	2.31	2.42	3.09	6.85	6.16
8	Hong Kong, China	1.86	2.64	2.27	2.74	3.16
9	Saudi Arabia, Kingdom of	1.55	1.58	1.74	0.8	0.81
10	Mexico	1.42	1.42	0.91	0.66	0.75
11	Türkiye	1.28	1.59	0.72	0.95	1.52
12	Japan	1.16	0.73	1.5	1.88	0.64
13	Singapore	0.94	1.25	2.24	1.82	2.54
14	South Africa	0.74	1.11	1.49	1.54	1.64
15	Australia	0.72	1.11	0.82	0.87	1
16	Bangladesh	0.57	0.44	0.66	1.38	1.39
17	Israel	0.56	0.66	0.8	1.44	1.81
18	Korea, Republic of	0.55	0.31	0.45	0.47	0.78
19	Canada	0.54	0.71	0.68	0.42	0.5
20	Viet Nam	0.52	0.48	0.55	1.24	1.23

Digital India Programme of MeitY

The Ministry of Electronics and Information Technology (MeitY), Government of India launched the 'Digital India' programme on July 1, 2015 with the vision to transforming India into a digitally empowered society and knowledge-based economy by ensuring digital access, digital inclusion, digital empowerment and bridging the digital divide. The programme is centred on three key vision areas, namely digital infrastructure as a core utility to every citizen, governance and services on demand, and digital empowerment of citizens. The overall goal is to ensure that digital technologies improve the life of every citizen, expand India's digital economy, and create investment and employment opportunities and digital technological capabilities in the country.

Digital India has considerably bridged the distance between Government and citizens and enhanced trust on government and governance. It has also helped in the delivery of services directly to beneficiaries in a transparent and corruption-free manner. In the process, India has emerged as one of the pre-eminent nations of the world to use technology to transform the lives of its citizens.

Digital India initiatives are accessible through mobile and by virtue of that, it bridges the urban rural divide. In order to improve the digital literacy rate, especially in rural India, the Government of India implemented a scheme titled "Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)" to usher in digital literacy in rural India by covering 6 crore rural households (one person per household) across the country. More than 6.39 crore individuals were trained across the country. Common people of India can access the Digital India services such as digital education, digital health, digital payment, e-court facilities from anywhere anytime basis. UMANG, one mobile application for all government services, is operational and offers 2000+ services for individuals. In order to support assisted mode of service delivery, over 5.97 lakh Common Services Centres (CSCs) are functional across the country (rural + urban), and these centres serve the people in rural and semi urban area to avail over 800 digital services near to their locality. Additionally, the Bhashini platform, a national language translation DPI, addresses communication barriers for India's diverse population. This fosters greater access to digital tools for underserved communities.

Several schemes/ projects are being implemented under Digital India programme for creating awareness and providing digital facilities to citizens across the country. Each project/scheme has its own initiation date and deadline for completion. E-Governance is considered essential for development of digital infrastructure & e-Governance initiatives of national importance and to bring technology parity at national level and to achieve sustainable socio-economic development through digital infrastructure, digital services, digital empowerment and bridging the digital divide. Some of the key initiatives taken by Government are as follows:

- **Digital Public Infrastructure (DPI):** DPI approach is all about taking benefits of digital technologies in delivering public as well as private services in equitable manner to all including urban and rural areas. DPI, such as Aadhaar, DigiLocker, Unified Payments Interface (UPI), Digital Infrastructure for Knowledge Sharing (DIKSHA), E-Sanjeevani, Government e-Marketplace (GeM), etc, are available and accessible to all without any discrimination.
- **Pradhan Mantri Gramin Digital Saksharta Abhiyaan (PMGDISHA):** In order to improve the digital literacy rate, especially in rural India, the Government of India implemented a scheme titled “Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)” to usher in digital literacy in rural India by covering 6 crore rural households (one person per household) across the country. As on 31st March 2024, as against a total target of covering 6 crore beneficiaries, more than 7.35 crore candidates were enrolled and 6.39 crore were trained, out of which 4.78 crore candidates were certified under the PMGDISHA Scheme across the country. The training & certification under the PMGDISHA Scheme has been officially concluded on 31.03.2024.
- **National Knowledge Network:** National Knowledge Network (‘NKN’) carries the digital-traffic of National/state Data Centres (NDCs/SDCs), State-Wide Area Networks (SWANs) and provides connectivity to various Digital India initiatives. It also carries digital-traffic of various G2G (Government to Government) and G2C (Government to Citizen) services. NKN also inter-connects all knowledge institutions across the country through high-speed data communication network to encourage sharing of resources and collaborative research. So far, 1,810 links to institutions had been commissioned and made operational under NKN.
- **BHASHINI:** BHASHINI aims to transcend language barriers, ensuring that every citizen can effortlessly access digital services in their own language. Using voice as a medium, BHASHINI has the potential to bridge language as well as the digital divide. Launched by Honourable Prime Minister in July 2022 under the National Language Technology Mission, BHASHINI aims to provide technology translation services in 22 scheduled Indian languages.
- **Aadhaar:** Aadhaar is the world’s largest digital identity programme that provides biometric and demographic-based unique digital identity; which can be authenticated anytime, from anywhere and also eliminates duplicate and fake identities. As on date, 141.88 Crore Aadhaar numbers have been generated.
- **Common Services Centres – CSCs** are offering government and business services in digital mode in rural areas through Village Level Entrepreneurs (VLEs). Over 800 services are being delivered through CSCs, including government services, financial services and services related to Aadhaar, various social welfare schemes, education, tele-medicine, travel bookings, utility payments. So far, 5.72 lakh CSCs are functional across the country (rural + urban), out of which 4.51 lakh CSCs are functional at the Gram Panchayat (rural) level.
- **DigiLocker:** It is a platform for issuance and verification of documents & certificates digitally. It has facilitated more than 51.49 crore users and made available 943.36 crore issued documents. Several fintech companies, working on banking and financial sector, are using DigiLocker for easy onboarding of users.

- **Unified Mobile App for New-Age Governance (UMANG):** UMANG is unified platform for all Indian Citizens to access pan India e-Gov services ranging from Central to Local Government bodies and other citizen centric services. Currently, 2,132 services from 209 Central/State/UT departments have been on-boarded on UMANG.
- **myScheme:** myScheme is a National Platform that aims to offer one-stop search and discovery of the Government schemes. The platform helps the citizens to find the right Government schemes for them. It also guides on how to apply for different Government schemes. So far, there are a total of 3,400 schemes published out of which Central government schemes are 540 whereas State/UT government schemes are 2,860.
- **e-Sign:** e-Sign service facilitates instant signing of forms/documents online by citizens in a legally acceptable form. The services are being leveraged by various applications using OTP based authentication services of UIDAI. More than 94.90 Crore e-Sign issued by all e-Sign service Providers (ESPs).
- **MyGov:** It is a citizen engagement platform that is developed to facilitate participatory governance. Presently, over 3.64+ crore users are registered with MyGov, participating in various activities hosted on MyGov platform.
- **MeriPehchaan** – National Single Sign-on (NSSO) platform called MeriPehchaan has been launched in July 2022 to facilitate / provide citizens ease of access to government portals. Currently 13,395 services of various Ministries/States have been integrated with NSSO.
- In addition, citizens across the country, have also been enabled to access e-services under various initiatives, such as National scholarship Portal, e-Hospital etc.

Further, Digital India has set timelines and phased targets. For instance, PMGDISHA has achieved the target and the training & certification under the PMGDISHA Scheme has been officially concluded on 31.03.2024. CSC has concluded on March 2024. The other initiatives are also planned in phased manner with specific aims/targets.

Measures taken by Ministry of Electronics & Information Technology (MeitY) to address the Cyber security challenges

- i. **National Cyber Security Policy (NCSP)** released in July 2013, caters to the cyber security requirements of Govt. and non-Govt entities as well as large, medium & small enterprises and home users. The policy aims at facilitating creation of secure computing environment and enabling adequate trust and confidence in electronic transactions and also guiding stakeholders' actions for protecting cyber space. for securing India cyberspace, creating cyber security ecosystem enhancing the resilience of critical infrastructure and establishing norms for international collaboration.
- ii. **Directions under section 70B of IT Act:** CERT-In issued directions under sub-section (6) of section 70B of the Information Technology Act, 2000 on 28th April 2022 relating to information security practices, procedure, prevention, response and reporting of cyber incidents for Safe & Trusted Internet.
- iii. **Indian Computer Emergency Response Team (CERT-In)** has been setup national nodal agency under section 70B of IT Act for 24 X 7 cyber security incident response.
- iv. **National Cyber Coordination Centre (NCCC)** has been set up to generate necessary situational awareness of existing and potential cyber security threats and enable timely information sharing for proactive, preventive and protective actions by individual entities.
- v. **Cyber Swachhta Kendra (CSK):** The Botnet Cleaning and Malware Analysis Centre has been setup with an eye to create a secure cyber space by detecting botnet infections in India and to notify, enable cleaning and securing systems of end users so as to prevent further infections. CSK is covering about ~98% of Indian internet users as well as 1178 organizations across sectors.
- vi. **International Cooperation and Collaboration in cyber security** – CERT-In has 10 active bilateral Memorandum of Understandings (MoUs) on cooperation in cyber security incident with counterpart agencies of foreign countries to deal with and mitigate borderless cyber attacks.
- vii. CERT-In has signed **MoUs** with Industry, which benefit government and industry with exchange of information on cyber security threats and threat intelligence, developing best practices and guidelines to enable organisations to secure their networks and systems, while cyber security awareness tips and free tools for cleaning the digital devices infected by malware are provided to citizens.
- viii. **National Critical Information Infrastructure Protection Centre (NCIIPC)** setup under section 70A of IT Act to serve as the national agency in respect of Critical Information Infrastructure Protection.

- ix. **Software Bill of Materials (SBOM):** Technical guidelines for the Software Bill of Materials (SBOM), issued by CERT-In, which aimed at enhancing the security and transparency of software supply chains. These guidelines offer a structured approach for creating, managing, and sharing detailed SBOMs, facilitating improved vulnerability management and risk mitigation. These guidelines are intended for use by suppliers, developers, and software-consuming organizations.
- x. **Secure Application Design, Development, and Implementation & Operations:** Guidelines issued by CERT-In for the entities engaged in developing or outsourcing application development. The objective is to establish a firm and robust application security baseline in application development lifecycle and to ensure comprehensive application security throughout the development lifecycle, encompassing design, development, deployment, and maintenance phases. The guideline mandates that applications must adhere to secure design and development practices before undergoing assessments or audits.
- xi. **Supply Chain Security:** The **Trusted Supply Chain Security Certification** scheme has been formulated by STQC for securing national critical information infrastructure to evaluate supply chain risks, which may include insertion of counterfeits, unauthorized production, tampering and theft, insertion of malicious software and hardware, poor manufacturing and development practices in the ICT supply chain.

Ministry of Electronics and Information Technology (MeitY)

HRD Activities

The following major schemes/activities pertaining to Human Resource Development for Electronics and ICT sector have been approved/under implementation: -

- i. **FutureSkills 'PRIME'**: Ministry of Electronics and Information Technology (MeitY) has initiated a programme titled "FutureSkills PRIME", jointly with NASSCOM aimed at re-skilling/ up-skilling of candidates in new/emerging technologies, namely Artificial Intelligence, Robotic Process Automation, Augmented/Virtual Reality, Internet of Things, Big Data Analytics, Additive Manufacturing/ 3D Printing, Cloud Computing, Social & Mobile, Cyber Security, Semiconductors and Blockchain. FutureSkills PRIME is available as an online platform for digital skills training, which is hosted at <https://futureskillsprime.in/>. On this platform, premium contents are made available to candidates, to facilitate anytime, anywhere learning, in line with their aptitude and aspirations. Under the programme, IT-ITeS Sector Skills Council (SSC) NASSCOM is the Key Implementing Agency.

Under the programme, so far, a total of 22 lakhs candidates have signed up on the FutureSkills PRIME portal (<https://futureskillsprime.in/>) and 11.5 Lakh candidates have been enrolled in the various courses in FutureSkills PRIME, out of which 5.3 Lakh candidates have completed the training. CDAC/NIELIT Resource Centres, have trained 15083 Government Officials (GoT) and 2,367 Training of Trainers (ToT) and 13,011 through bootcamps.

- ii. **Electronics and ICT Academies Phase - II**: MeitY has approved the 'Electronics & ICT Academy Scheme -- Phase-II' project on 26.04.2024 over 5 years. The project aims to train 1,35,000 faculty members/trainers in emerging technology areas. Phase-II would continue to focus on improving faculty quality in engineering colleges and technical institutions by leveraging the existing 7 E&ICT academies and extending to other institutions, particularly in tier-2/tier-3 areas. The project is being implemented through 14 implementing Agencies viz. (i) IIT Guwahati, Assam, (ii) IIT Roorkee, Uttarakhand, (iii) IIT, Kanpur, Uttar Pradesh, (iv) NIT Warangal, Telangana, (v) NIT Patna, Bihar, (vi) IIITDM Jabalpur, Madhya Pradesh, (vii) MNIT Jaipur, Rajasthan, (viii) ICT Academy, Tamil Nadu, (ix) NIELIT, Aurangabad, Maharashtra, (x) NIELIT, Calicut, Kerala, (xi) NIELIT, Gorakhpur, Uttar Pradesh, (xii) CDAC, Mohali, Punjab, (xiii) CDAC, Patna, Bihar; and, (xiv) CDAC, Hyderabad, Telangana.

Under the Phase-II, so far, 26,713 beneficiaries (Faculty: 24,184 - Student/ others: 2,529) have been trained under 427 Faculty Development Programmes (FDPs) by the implementing agencies in the Electronics and ICT domains.

iii. **Capacity Building and Research & Development Initiatives:** NIELIT's mandate extends beyond education and examinations, encompassing a variety of capacity-building and research & development (R&D) projects. The organization is actively implementing several high-impact initiatives, including:

- Establishment of IndiaAI Labs to empower youth across 27 NIELIT centers.
- Skill development programs for youth in 60 Aspirational Districts.
- Future Skill Prime initiative to equip professionals with emerging technological competencies.
- Development of Cyber Forensic Training cum Investigation Labs in 8 North-Eastern States.
- Digital skill training for over 1.5 lakh Northeast citizens aligns with current industry demands.

Additionally, NIELIT has demonstrated its expertise in executing R&D projects, consultancy services, and turnkey solutions in areas such as office automation, software development, and website creation. It served as the nodal implementing agency on behalf of MeitY for the Data Digitization of the population across 15 states and 2 Union Territories as part of the National Population Register (NPR) project for the Registrar General of India (RGI). Furthermore, NIELIT plays a crucial role in the Agriculture Census and Input Survey project, handling the tabulation of approximately 10 crore data records.

iv. **Capacity building for human resource development in Unmanned Aircraft System (Drone and related Technology):** MeitY has approved the project entitled "Capacity building for human resource development in Unmanned Aircraft System (Drone and related Technology)" for a period of 05 years. The primary objective of the UAS/Drone project is to leverage collaborative activities in human resource development through capacity building in education and training in the area of Unmanned Aircraft System (UAS). Under the project, the implementation is carried out by 30 premium institutions, in a hub-n-spoke mode, comprising 5 Resource Centres; 15 Academic Participating Institutes (PI-Academic); and 10 C-DAC/NIELIT Participating Institutes (PI-C-DAC/NIELIT) Centres. Under the project total target is to train 42,560 participants through 1,700 activities over the period of 5 years. A total of 413 formal activities including M-Tech, Minor Degree, Retrofitting Electives, Open Online Courses, IPR (Papers & Patents), and International Conferences are aimed to create 5,660 manpower while the non-formal programs including 1287 activities namely Workshop, FDP, PG Diploma, Bootcamp, Skilling Course, POC and National Competitions are envisaging to create around 37,100 manpower across the Country in the area of Drone and related Technology. Under the project so far, over 16,000 beneficiaries have been trained through various activities.

v. **Skill Development in Electronics System Design and Manufacturing (ESDM) sector:** The Government has approved following two schemes for Skill Development in ESDM Sector to facilitate creation of an eco-system for development of ESDM Sector in the entire country. "Scheme for Financial Assistance to select States/UTs for Skill Development in Electronics System

Design and Manufacturing (ESDM) sector” (Scheme-1) and “Skill Development in ESDM for Digital India” (Scheme-2)

Scheme-1 has a total target of 90,000 candidates approved in October 2013. This Scheme is being implemented in following states viz. Andhra Pradesh, Telangana, Jammu & Kashmir, Ladakh, Karnataka, Punjab, Uttarakhand (for 2 levels only) and Uttar Pradesh, Kerala (Opted out). The Scheme is being implemented by the State Implementing Agencies (SIA), nominated by the respective States. The SIAs are responsible for implementation and create necessary mechanism for implementation, monitoring and placement. Scheme-2 has a total target of 3,28,000 candidates at an approved in December 2014. This Scheme is being implemented by NIELIT-PMU to operate and manage the Scheme in all States/UTs including transfer of funds to the various implementing agencies under the aegis of MeitY.

Both schemes are being implemented in coordination with key implementing agencies (ESSCI, NIELIT, TSSC, HSSC) and their affiliated training partners across the country. These schemes are about to close as they are approved until June 30, 2025. Against the cumulative target of skilling of 4,18,000 candidates, a total of 4,93,925 candidates have been enrolled out of which 4,93,925 candidates have been trained, 3,75,295 candidates have been certified and 1,38,182 have been placed.

vi. Work Based Learning (WBL) Programme: MeitY has approved the project entitled “Work Based Learning (WBL) programme to Strengthen and Empower SC/ST/Women/EWS Graduate Engineers through MeitY Institutions” (Approved as on - 09.03.2022) to provide an opportunity to 4530 candidates (SC/ST:2265, Women/EWS: 2265) to acquire Technical Knowledge Expansion, Real-time Working Skills, Technology Use, Problem Solving Skills, Reasoning, Ideation, Analytical Thinking, Interpersonal Skills, etc. in a professional work environment. The Programme is being implemented across the 81 centres or Units of the seven (7) organizations of MeitY i.e. CERT-In, C-DAC, NIELIT, STQC, CMET, ERNET and SAMEER while C-DAC, Mohal is acting as the Programme Management Unit (PMU) for the overall scheme monitoring and implementation. As of now, 2878 candidates [SC- 836, ST- 513, EWS- 476 and Women- 1053] are enrolled and 1305 candidates have completed their tenure under Work Based Learning (WBL) Programme. Candidates undergoing Work Based Learning (WBL) programs would be issued certificates after successful completion and monthly stipend of Rs. 10,000 (per month).

The issue of cyber-attacks in the era of AI and the initiatives by the Ministry

The policies of the Government of India are aimed at ensuring a safe, trusted and accountable cyberspace for users in the country. The Government's multifaceted approach to address the rising threat of data breaches and cyber-attacks due to lack of reasonable security practices, focus on strengthening legal frameworks, enhancing data protection & cybersecurity infrastructure, and promoting awareness among individuals and organisations. The Indian cyber law regime is rooted in the Information Technology Act, 2000 ('IT Act') and the rules thereunder. The IT Act and the rules made thereunder apply to any information which are generated by users themselves as well as to those which are generated using Artificial Intelligence ("AI") tools or any other technology for the purpose of defining offences. Although the provisions contained in the IT Act have stood the test of time and innovations in the ICT sector, the threat of growing cybersecurity issues remains ever present as technology evolves rapidly enabling more and more people to be connected over the internet and avail a wide variety of services.

The key provisions relating to cyber security are Section 69B, 70, 70A and 70B while other related provisions include Sections 43, 65, 66, 66C, 66D, 66E, 66F, 67C, 69 and 69A.

The key regulatory initiatives taken by the Ministry of Electronics & Information Technology (MeitY) to address the issues of cybersecurity measures including measures to secure personal data protection in the cyberspace through reasonable security practices, are as under:

I. Key provisions for Cyber Security under the IT Act:

- a. Section 69B (Power to authorise to monitor and collect traffic data or information through any computer resource for cyber security):** CERT-In is empowered to monitor and collect traffic data under section 69B of the IT Act to enhance cyber security in India in the manner as prescribed under the Information Technology (Procedure and Safeguards for Monitoring and Collecting Traffic Data or Information) Rules, 2009. An order directing monitoring and collection of traffic data under section 69B of the IT Act can only be issued by Secretary, MeitY for various purposes, including forecasting of imminent cyber incidents, tracking cyber security breaches and incidents, undertaking forensic of the concerned computer resources, etc. CERT-In is the agency authorised for the monitoring and collection of traffic data under section 69B of the IT Act. An intermediary who fails to provide assistance in relation to monitoring and collection of traffic data shall be punished with **imprisonment for a term which may extend to one year or shall be liable to fine up to one crore rupees, or with both.**
- b. Section 70 (Protected System):**Section 70 of IT Act read with the Information Technology (Information Security Practices and Procedures for Protected System) Rules, 2018 lays down the framework for designating any computer resource as a "protected system" and the obligations to be followed by organisations thereto once a computer resource is recognized as a protected system. In exercise of its powers under section 70 of the IT Act, the

Central Government can declare computer resource relating to the identified critical information infrastructure (CII) as a protected system, while restricting access to such infrastructure to authorised persons and making unauthorised access or an attempt for such access punishable with **imprisonment of for a term which may extend to ten years and shall also be liable to fine**. In the banking and payment systems sector, the Real Time Gross Settlement (RTGS) and National Electronic Fund Transfer (NEFT) payment systems operated by the Reserve Bank of India (RBI) and the relevant computer resources relating to identified CII elements of AIIMS, NCRB, State Bank of India, NPCI, HDFC Bank Limited, ICICI Bank Limited, Punjab National Bank, Bank of Baroda, Axis Bank, Canara Bank, Kotak Mahindra Bank, Union Bank of India, Life Insurance Corporation of India, select Network Elements of the Licensed Telecom service provider's network, NIC, Airport Authority of India (AAI) have been notified as protected system.

- c. **Section 70A (National Nodal Agency):** In exercise of its powers under section 70A of the IT Act, the Central Government has established the National Critical Information Infrastructure Protection Centre (NCIIPC) for the protection of CII. NCIIPC advises organisations having computer resource notified by the Central Government as CII on reduction of vulnerabilities to various threats and attacks, while sharing threat intelligence, guidelines, best practices and frameworks for protection and guiding them on policies and protection strategies. In addition, training and awareness programmes are conducted regularly to strengthen the cyber security posture in such organisations. As per the aforesaid rules, NCIIPC is under the administrative control of the National Technical Research Organisation (NTRO).
- d. **Section 70B (Indian Computer Emergency Response Team to serve as national agency for incident response):** Under Section 70B of the IT Act, the Indian Computer Emergency Response Team (CERT-In), the national agency tasked with incident response for security threats to ICT systems, is empowered to call for information, issue directions and guidelines to protect the cyber security ecosystem in India under Section 70B(6) of the IT Act, non-compliance with which is a punishable offence under Section 70B(7) of the IT Act. In case, any service provider, intermediaries, data centres, body corporate or person from whom CERT-In called for information fails to provide such information or comply with the directions issued by CERT-In under Section 70B(6) of the IT Act they shall be liable for **punishment with imprisonment for a term which may extend to one year or with fine up to one crore rupees or with both**. In April 2022, CERT-In issued directions which inter alia require all entities to report cyber security breaches to CERT-In within 6 hours, designate a single point of contact and share their details with Cert-In, and maintain ICT logs for 180 days in India. CERT-In has set up the National Cyber Coordination Centre (NCCC) to generate situational awareness of cyber security threats by scanning the entire Indian cyber space meta data to generate near-real-time information to enable proactive, preventive and protective actions by all relevant entities across the Indian cyberspace. As part of this approach to monitoring of and timely sharing of information with entities across the entire Indian cyberspace, NCCC collects and analyses traffic metadata from all relevant entities. Section 70B empowers the CERT-In to prescribe and implement reasonable security best practices and guidelines to prevent occurrence and recurrence of security

incidents. CERT-In issues alerts and advisories regarding latest cyber threats/vulnerabilities and countermeasures to protect computers and networks on regular basis.

e. Data Privacy and Security:

Section 43A of the IT Act prescribes for compensation for failure to protect sensitive personal data or information of users. Any “body corporate” handling sensitive financial information can be held liable if a user suffers a loss due to their negligence in implementing reasonable security practices. Compensation can be claimed by the affected party in such cases. The Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information), 2011 (“SPDI Rules”) made under section 43A of the IT Act has prescribed reasonable security practices and procedures to protect sensitive personal data of users, including biometric information, collected by a body corporate. The SPDI Rules mandate that body corporate shall provide policy for privacy and disclosure of such information, so that user is well aware of the type of personal data collected, purpose of collection and usage of such information. The rules also specify mode of collection of information, disclosure of information, transfer of information, etc. Body corporate or any person on its behalf shall obtain written consent from the provider of such information regarding lawful purpose of usage before collection of such information. According to the SPDI Rules, every body corporate processing or storing sensitive and personal information needs to implement reasonable security practices and procedures. Such measures must be proportionate to the value of the information assets being safeguarded and the nature of the business of the body corporate. If there is a breach of sensitive personal data or information security, the body corporate or a representative acting on its behalf must be able to prove, when requested by the authorised agency, that they have implemented security measures in accordance with their documented information security programme and policies. As per the SPDI Rules, sensitive personal data or information of a person includes any information relating to financial information such as Bank account or credit card or debit card or other payment instrument details. Banks and payment service providers are required to protect users’ financial data as part of their legal obligation under the IT Act and relevant rules. Non-compliance can lead to penalties. Also, section 72A of the IT Act provides for penalty for disclosure of personal information in breach of the lawful contract. Section 46 of the IT Act provides power to adjudicate by the Adjudicating Officers appointed thereunder (i.e., Secretary of Department of Information Technology of each of the States or of Union Territories). These officers have jurisdiction to entertain claims causing loss of up to Rs. 5 crores arising from any contravention by any person of any of the provisions of the IT Act or of any rule, regulation, direction or order made thereunder (that include contravention of section 43A and SPDI Rules) which renders him liable to pay penalty or compensation. Victim who has suffered a loss due to the negligence in implementing reasonable security practices by the concerned body corporate can file a complaint with the Adjudicating Officer designated under the IT Act, who has the authority to award compensation for financial losses caused due to such negligence. Victims dissatisfied with the decision of the adjudicating officer can appeal to the Cyber Appellate Tribunal under

the IT Act.

Additionally, the Digital Personal Data Protection Act, 2023 (“DPDP Act”) received the assent of the Hon’ble President on August 11, 2023. The DPDP Act, which is yet to come into force, shall establish a legal framework to regulate the processing, including the sharing, of digital personal data with lawful purpose, notice, and consent. The Data Principal has the right to obtain from the data fiduciary, to whom she has previously given consent, a summary of personal data and of processing activities undertaken by the Data Fiduciary. The Data Fiduciary is obligated to protect personal data by taking reasonable security safeguards to prevent personal data breach. In the event of any personal data breach, the Data Fiduciary has to intimate to the Data Protection Board and each affected Data Principal. Further, in the event of any such breach or complaint by the Data Principal with respect to exercise of her rights, the Data Protection Board after an inquiry, may impose monetary penalty as per the provisions of the Act. The Act prescribes different monetary penalties for different types of breaches of the Act, with the maximum penalty up to ₹250 crores. The provisions of this Act shall not apply in respect of the processing of personal data (a) by such instrumentality of the State as the Central Government may notify, in the interests of sovereignty and integrity of India, security of the State, friendly relations with foreign States, maintenance of public order or preventing incitement to any cognizable offence relating to any of these, and the processing by the Central Government of any personal data that such instrumentality may furnish to it; and (b) necessary for research, archiving or statistical purposes if the personal data is not to be used to take any decision specific to a Data Principal and such processing is carried on in accordance with such standards as may be prescribed.

The Act also empowers the Central Government to restrict data transfers to specific countries or territories through official notifications. However, any sectoral laws that provides higher degree of protection for or restriction on transfer of personal data will continue to apply, ensuring higher protection levels where required.

Once the DPDP Act is in force, section 43A of the IT Act read with SPDI Rules shall be repealed.

Other related provisions

- f. Section 65 (Tampering with computer source documents):** Section 65 penalises any person who knowingly or intentionally conceals, destroys or alters or intentionally or knowingly causes another to conceal, destroy, or alter any computer source code used for a computer, computer programme, computer system or computer network, when the computer source code is required to be kept or maintained by law for the time being in force, shall be punishable with **imprisonment up to three years, or with fine up to two lakh rupees, or with both.**
- g. Section 66 (Computer related offences):** Section 66 penalises whoever dishonestly or fraudulently, does any act referred to in section 43, he shall be

- punishable with **imprisonment for a term which may extend to three years or with fine up to five lakh rupees or with both.**
- h. **Section 66C (Punishment for identity theft):** Section 66C penalises whoever fraudulently or dishonestly make use of the electronic signature, password or any other unique identification feature of any other person, shall be punished with **imprisonment for a term which may extend to three years and shall also be liable to fine up to rupees one lakh.**
 - i. **Section 66D (Punishment for cheating by personation by using computer resource):** Section 66D penalises whoever by means of any communication device or computer resource cheats by personation, shall be punished with **imprisonment for a term which may extend to three years and shall also be liable to fine which may extend to one lakh rupees.**
 - j. **Section 66E (Punishment for violation of privacy):** Whoever, intentionally or knowingly captures, publishes or transmits the image of a private area of any person without his or her consent, under circumstances violating the privacy of that person, shall be punished with **imprisonment which may extend to three years or with fine not exceeding two lakh rupees, or with both.**
 - k. **Section 66F (Punishment for cyber terrorism):** (1) Whoever,—
 - (A) with intent to threaten the unity, integrity, security or sovereignty of India or to strike terror in the people or any section of the people by—
 - (i) denying or cause the denial of access to any person authorised to access computer resource; or
 - (ii) attempting to penetrate or access a computer resource without authorisation or exceeding authorised access; or
 - (iii) introducing or causing to introduce any computer contaminant, and by means of such conduct causes or is likely to cause death or injuries to persons or damage to or destruction of property or disrupts or knowing that it is likely to cause damage or disruption of supplies or services essential to the life of the community or adversely affect the critical information infrastructure specified under section 70; or
 - (B) knowingly or intentionally penetrates or accesses a computer resource without authorisation or exceeding authorised access, and by means of such conduct obtains access to information, data or computer data base that is restricted for reasons of the security of the State or foreign relations; or any restricted information, data or computer data base, with reasons to believe that such information, data or computer data base so obtained may be used to cause or likely to cause injury to the interests of the sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency or morality, or in relation to contempt of court, defamation or incitement to an offence, or to the advantage of any foreign nation, group of individuals or otherwise, commits the offence of cyber terrorism.
 - (2) Whoever commits or conspires to **commit cyber terrorism shall be punishable with imprisonment which may extend to imprisonment for life.**
 - l. **Section 67C (Preservation and retention of information by intermediaries):**
 - (1) Intermediary shall preserve and retain such information as may be specified for such duration and in such manner and format as the Central Government

- may prescribe.
- (2) any intermediary who intentionally or knowingly contravenes the provisions of sub-section (1) shall be liable to **penalty which may extend to twenty-five lakh rupees.**
- m. Section 69 (Power to issue directions for interception or monitoring or decryption of any information through any computer resource):** (1) Where the Central Government or a State Government or any of its officers specially authorised by the Central Government or the State Government, as the case may be, in this behalf may, if satisfied that it is necessary or expedient so to do, in the interest of the sovereignty or integrity of India, defence of India, security of the State, friendly relations with foreign States or public order or for preventing incitement to the commission of any cognizable offence relating to above or for investigation of any offence, it may subject to the provisions of sub-section (2), for reasons to be recorded in writing, by order, direct any agency of the appropriate Government to intercept, monitor or decrypt or cause to be intercepted or monitored or decrypted any information generated, transmitted, received or stored in any computer resource.
- (2) The procedure and safeguards subject to which such interception or monitoring or decryption may be carried out, shall be such as may be prescribed.
- (3) The subscriber or intermediary or any person in-charge of the computer resource shall, when called upon by any agency referred to in sub-section (1), extend all facilities and technical assistance to—
- (a) provide access to or secure access to the computer resource generating, transmitting, receiving or storing such information; or
- (b) intercept, monitor, or decrypt the information, as the case may be; or
- (c) provide information stored in computer resource.
- (4) The subscriber or intermediary or any person who fails to assist the agency referred to in sub-section (3) shall be punished with imprisonment for a term which may extend to seven years and shall also be liable to fine.
- n. Section 69A (Power to issue directions for blocking for public access of any information through any computer resource):** (1) Where the Central Government or any of its officers specially authorised by it in this behalf is satisfied that it is necessary or expedient so to do, in the interest of sovereignty and integrity of India, defence of India, security of the State, friendly relations with foreign States or public order or for preventing incitement to the commission of any cognizable offence relating to above, it may subject to the provisions of sub-section (2), for reasons to be recorded in writing, by order, direct any agency of the Government or intermediary to block for access by the public or cause to be blocked for access by the public any information generated, transmitted, received, stored or hosted in any computer resource.
- (2) The procedure and safeguards subject to which such blocking for access by the public may be carried out, shall be such as may be prescribed.
- (3) The intermediary who fails to comply with the direction issued under sub-section (1) shall be punished with an imprisonment for a term which may extend to seven years and also be liable to fine.

- II. The IT Act has a dedicated and separate chapter on 'Offences' [Chapter XI consisting of sections 65 to 78] where penalties & punishments including the violation of cyber security norms are well-prescribed.
- III. The IT Act also penalises publishing or transmission of obscene material (section 67), and publishing or transmission of material containing sexually explicit act in electronic form including depicting children in sexually explicit act (sections 67A and 67B), and makes them punishable with imprisonment for a period that may extend to three and five years respectively for first instances, and as per section 77B such cybercrimes are cognizable offences. These offences are in addition to various penal provisions under the Indian Penal Code, such as the offence of stalking using electronic communication (section 354D).
- IV. **Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 ("IT Rules, 2021"):** Dissemination of harmful content on internet platforms are currently regulated through the IT Rules, 2021 made in exercise of the powers given under the IT Act. The IT Rules, 2021 cast specific due diligence obligations on intermediaries, including social media intermediaries to make reasonable efforts by themselves and to cause the users of their computer resource to not host, store, transmit, display or publish, etc. any such information that is categorised as unlawful under the IT Rules, 2021 and violative of any law for the time being in force. Intermediaries are required to ensure their accountability that includes their expeditious action towards removal of the unlawful information within the timelines prescribed under the IT Rules, 2021. For this purpose, such unlawful information includes any information that contains software virus or any other computer code, file or program designed to interrupt, destroy or limit the functionality of any computer resource, or that violates any law for the time being in force. The IT Rules, 2021 also require the appointment of a Grievance Officer by intermediaries to resolve the complaints. Such Officer is required to provide time-bound redressal of the grievances of the victim / complainant against the violation of these rules. In case the victim / complainant is aggrieved by the decision of an intermediary's Grievance Officer or does not receive timely redressal, he/she may prefer an appeal to the Grievance Appellate Committee (GAC) within thirty days of the receipt of communication from the Grievance Officer. In case of failure to observe due diligence as provided in the IT Rules, 2021, intermediaries lose the exemption from liability for any third-party information, data or communication link, under IT Act. Apart from this, the IT Rules, 2021, among other due diligence obligations, prescribes that the intermediary shall
- take all reasonable measures to secure its computer resource and information contained therein following the reasonable security practices and procedures as prescribed in the SPDI Rules, and
 - report cyber security incidents and share related information with the Indian Computer Emergency Response Team in accordance with the policies and procedures as mentioned in the Information Technology (The Indian Computer Emergency Response Team and Manner of Performing Functions and Duties) Rules, 2013.

Additionally, Rule 3(1)(j) of the IT Rules, 2021 mandates the intermediaries to provide information under its control or possession, or assistance to the Government agency which is lawfully authorised for investigative or protective or

cyber security activities, for the purposes of verification of identity, or for the prevention, detection, investigation, or prosecution, of offences under any law for the time being in force, or for cyber security incidents, well within the timeframes stipulated (as soon as possible but not later than 72 hours). Intermediaries are required to provide information as per Rule 3(1)(j) of the IT Rules, 2021 under its control or possession, or assistance well within the timeframes stipulated under the IT Rules, 2021 to the Government agency which is lawfully authorised for investigative or protective or cyber security activities, for the purposes of verification of identity, or for the prevention, detection, investigation, or prosecution, of offences under any law for the time being in force, or for cyber security incidents.

- V. Government is fully cognizant and aware of various cyber security threats and challenges and has taken following additional measures to enhance the cyber security posture and prevent cyber-attacks:
- (vii) CERT-In, in December 2022, issued a special advisory on best practices to enhance the resilience of health sector entities, and has requested the Ministry of Health and Family Welfare (MoHFW) to disseminate the same to all authorised medical care entities and service providers in the country.
 - (viii) CERT-In has issued guidelines on information security practices for Government entities in June 2023 covering domains such as data security, network security, identity and access management, application security, third-party outsourcing, hardening procedures, security monitoring, incident management and security auditing.
 - (ix) CERT-In operates the Cyber Swachhta Kendra (Botnet Cleaning and Malware Analysis Centre) to detect malicious programs and free tools to remove the same, and to provide cyber security tips and best practices for citizens and organisations.
 - (x) The office of National Cyber Security Coordinator (NCSC) has been established to coordinate, oversee and in compliance of Cyber Security policies. The function of NCSC, inter alia, includes advise and ensure implementation of action plans for cyber security by nodal agencies in their areas of responsibility.
 - (xi) To mitigate cybersecurity risks on telecom networks, the National Security Directive on Telecommunication Sector has been mandated with effect from 15 June 2021.
 - (xii) CERT-In operates an automated cyber threat exchange platform for proactively collecting, analysing and sharing tailored alerts with organisations across sectors for proactive threat mitigation actions by them.

Conclusion:

- VI. Accordingly, it may be noted that the IT Act and the rules thereunder sufficiently govern the major facets of cybersecurity in India including measures to secure personal data protection in the cyberspace through reasonable security practices. Additionally, once the DPDP Act is in force, it shall holistically regulate digital personal data processing with lawful purpose, notice, and consent. Data Fiduciaries must safeguard data and report breaches to the Data Protection Board and affected individuals. Data Principals can access a summary of their data and

its processing. The Board may impose penalties for violations, up to ₹250 crore. Exemptions apply for notified state instrumentalities and processing for research or statistical purposes under prescribed standards. Once in force, the DPDP Act will repeal Section 43A of the IT Act and the SPDI Rules, replacing them with a comprehensive personal data protection framework.

Background Notes on ICT disputes

1. Brief Background

- India is a signatory to Information Technology Agreement-1 (ITA-1), which was concluded by 29 participants at the **Singapore Ministerial Conference in December 1996**.
- The ITA covers many high-technology products, including computers, telecommunication equipment, semiconductors, semiconductor manufacturing and testing equipment, software, scientific instruments, and most of the parts and accessories of these products, representing 97% of the world's trade in IT products.
- The ITA requires each participant to eliminate and **bind customs duties at zero** for all products specified in the Agreement. **Even countries not joining the ITA can benefit from the trade opportunities generated by ITA tariff elimination.** This is brought into effect by each member country notifying the tariff reduction in their Schedule of Concessions. India consequently amended its Schedule of Concessions in 1997. India signed the Ministerial Declaration i.e., Information Technology Agreement (ITA-1) in 1997 as per HS 1996 wherein 217 HS lines were covered on which duty was reduced to zero in phased manner.
- The HS codes are reviewed periodically after every 5 years; thus, the HS codes were revised in 2002, 2007 and so on. In 2002, there were not much changes in HS codes w.r.t. electronics sector but in 2007 there were major changes.
- As far as the cellular phones are concerned, it was not clearly mentioned in HS 1996 about the wireless products e.g. Radio Telephony apparatus for motor vehicles, ships, trains etc. The chapter heading of HS 8517 was changed to include wireless products from 8525 during HS Schedule revision in 2007 in addition to the wired products. Mobile phones are classified under the HS 851712.
- The WTO formulated the HS schedule for the developing countries for transposition as per HS 2007 and a window of three month was given for comments and it was indicated that if no comments are received within this period, the India's schedule would be considered a ratified. **The schedule was ratified on 12.5.2015. This leads to major changes in India's schedule and many product lines were bound at zero duty.**
- The meeting of the Inter-Ministerial Committee (IMC) Meeting comprising of member from MeitY, DoT, DoC and DoR was held on 03.05.2017 in MeitY to review and evolve a harmonized view on imposition of Basic Custom Duty (BCD) on electronic goods covered under ITA-1.
- Based on the detailed analysis, it was concluded that cellular mobile phones were not covered under the ITA-1 of WTO and the IMC recommended imposition of BCD of 15% on cellular mobile phones and parts thereof (presently covered under HS 85171210, HS 85171290 & HS 851770), in accordance with the PMP (Phased

Manufacturing Programme) notified by MeitY. Accordingly, BCD was imposed on certain IT products and parts thereof.

- India's rationale (amongst others) for imposing duty was that these products were not in existence in 1996 and therefore could not have been bound pursuant to the ITA-1. However, the complainants have claimed that India has violated the "NIL" duty commitments under its Schedule of Concessions.
- The European Union (DS582), Japan (DS584) and Chinese Taipei (DS588) had filed ICT dispute in against India in WTO (World Trade Organization). The disputes are understood to be significant as they relate to India's policy space on levying duties on IT products.
- The decision of WTO DSB has given rulings against India.
- At the Nairobi Ministerial Conference in December 2015, over 50 members concluded the expansion of the Agreement, which now covers an additional 201 products and is called ITA-2. **India is not a signatory to ITA-2.**

2. Indian position:

India has imposed duties on the following items and EU, Japan and Chinese Taipei had filed ICT dispute in against India in WTO:

Sl. No.	HS Code with Description	Departments
1	85171300 - Smart phones (BCD@20%)	MeitY
2	85171400 - Other telephones for cellular networks or for other wireless networks (BCD@20%)	MeitY
3	85044090* - Static convertor (charger/adapter) (BCD@20%) <i>*Includes all kinds of battery chargers and not only mobile phones.</i>	MeitY
4	85177910# - (BCD@20%) (a) PCBA For mobile- MeitY and (b) PCBA For telecom equipment- DoT <i>#Includes PCB and parts of all products under HS 8517.</i>	MeitY & DoT
5	85177990 - (BCD@15%) (a) Parts of Mobile phone- MeitY and (b) Parts of Telecom Equipment- DoT	MeitY & DoT
6	85176100 - Base stations (BCD@20%)	DoT
7	85176290 - Telecom equipment (Transmission and Reception Apparatus, Optical Network products, Ethernet switches etc. (BCD@20%)	DoT

3. **WTO Dispute for ICT products**

- The Panel on *India – Tariffs on ICT Goods* (DS582/ DS 584 / DS 588) was established by the DSB on June 29 2020, and composed on August 31 2020.
- EU is the complainant in DS 582. At the same time, Japan is the complainant in DS 584 and Chinese Taipei in DS 588.
- The Panel circulated the final report **to all WTO members on April 17 2023**. The report was not in favour of India.

4. **Present status**

On our request, the DoC provided the following information via e-mail dated 27.12.2023:

- In DS582 (EU) - the EU included on the agenda of the DSB meeting on 07 December 2023 that they intend to seek for adoption of the Panel report. Hence India appealed against the Panel report on 08 December 2023.
- In *DS588 (Chinese Taipei) - Both countries have jointly decided and communicated their intention for deferment in the adoption of the Panel report till 26 April 2024. The DSB in its meeting on 18 December 2023, had accepted it.
- While in DS584 (Japan) - India appealed against the report in May 2023.
- Further, it is indicated that DoC is waiting further communication from the complainants. The ministries/departments are requested to provide their inputs/comments (if any).

Note: **Presently India and Chinese Taipei are engaged in MAS (Mutually Agreeable Solutions) negotiation.*

5. **Impact of duty and schemes of MeitY, such as PMP, PLI, SPECS, MSIPS/SIPS, EMC etc. on domestic mobile phones manufacturing:**

- a) The domestic electronics hardware manufacturing sector faces certain disability vis-à-vis competing nations. The sector suffers disability of around 8.5% to 11% on account of lack of adequate infrastructure, domestic supply chain and logistics; high cost of finance; inadequate availability of quality power; limited design capabilities and focus on R&D.
- b) In order to build robust electronics manufacturing in the country, Government of India has implemented various policy measures. The details are as follows:

Excise duty based Phased Manufacturing Programme (PMP) for cellular mobile handsets and sub-assemblies/parts/sub-parts thereof was formulated and implemented in 2016-17 to increase the domestic value addition and establishment of a robust cellular mobile handsets manufacturing eco-system in India. However, excise duty was subsumed in GST regime. Thereafter, based on as per the recommendations IMC, BCD of 10% was imposed on the cellular mobile handsets and specified sub-assemblies / parts / sub-parts thereof w.e.f. 01.07.2017. BCD was further increased to 20%. To boost domestic manufacturing and attract large investments in mobile phone manufacturing and specified electronic components, a Production Linked Incentive Scheme (PLI) for Large Scale Electronics Manufacturing has been notified by MeitY on 1st April, 2020. In addition, M-SIPS/SPECS were to promote components manufacturing.

- c) As a result of various steps taken by the Government, more than 200 units manufacturing mobile phones and sub-assemblies / parts / sub-parts thereof have been set up in the country. Most major brands either have already set up their own manufacturing facilities or are in the process of doing so or have sub-contracted manufacturing to Electronics Manufacturing Services (EMS) companies operating from the country. These units are manufacturing mobile phones for domestic market as well as for export market. India has emerged as the 2nd largest manufacturer of mobile handsets in the world in volume terms. Production of mobile handsets has grown from INR 18,900 crore in FY 2014-15 to INR 3,50,000 crore in FY 2022-23, as per industry estimates. Exports of mobile handsets has grown from INR 188 crore in FY 2014-15 to INR 90,000 crore in FY 2022-23, as per industry estimates. Employment in mobile phone manufacturing sector is around 10 lakh persons (direct and indirect), as per industry estimates.
- d) Currently, there is a BCD of 20% levied on mobile phones and different duty on components of mobile phone which provides India with a level playing field in terms of cost competitiveness vis-à-vis other countries. The decision against India in WTO will result into reducing of BCD from 20% to 'Nil' on Mobile phone and its components, thereby affecting India's cost competitiveness vis-à-vis other manufacturing nations. As a result of GoI's initiatives, approximately 95% of India's demand (Value wise) and 99% (Volume wise) for mobile phones is being met by domestically manufactured mobile phones. India's loss of the WTO dispute case will result in imports of mobile phone.

6. Possible way outs:

- There is an Appellate Body mechanism in WTO. It is a standing body of seven persons that hears appeals from reports issued by panels in disputes brought by WTO Members. The Appellate Body can uphold, modify or reverse the legal

findings and conclusions of a panel, and Appellate Body Reports are adopted by the Dispute Settlement Body (DSB) unless all members decide not to do so. At present there is not Appellate Body in WTO, however, India may use its right to file an appeal in void and force WTO to constitute an Appellate Body to resolve the issue. It may take some time, may be 2-3 years, and domestic manufacturing may get some time to establish and develop sufficient ecosystem of component as well as finished goods manufacturing. With more measures from government side, such as reduction of duty on components and other EoDB measures, Indian mobile industry will become competitive and may survive without any duty also.

- Indian may insist the complainants to resolve their issues through bilateral FTA negotiations.

**STANDING COMMITTEE ON COMMUNICATIONS AND
INFORMATION TECHNOLOGY (2024-25)**

MINUTES OF THE SEVENTEENTH SITTING OF THE COMMITTEE

The Committee sat on Wednesday, the 9th April, 2025 from 1100 hours to 1340 hours in Main Committee Room, Parliament House Annexe, New Delhi.

PRESENT

Dr. Nishikant Dubey- Chairperson

MEMBERS

LokSabha

2. Shri Anil Baluni
3. Dr. Rabindra Narayan Behera
4. Shri Ramasahayam Raghuram Reddy
5. Shri Arun Kumar Sagar
6. Shri Devesh Shakya
7. Shri Rajesh Verma

RajyaSabha

8. Shri Saket Gokhale
9. Smt. Priyanka Chaturvedi
10. Shri V. Vijayendra Prasad
11. Shri Lahar Singh Siroya
12. Shri K. T. S. Tulsi

Secretariat

- | | | | |
|----|---------------------|---|----------------------|
| 1. | Shri Y. M. Kandpal | - | Additional Secretary |
| 2. | Smt. A. Jyothirmayi | - | Director |
| 3. | Shri Amrish Kumar | - | Deputy Secretary |

LIST OF WITNESSES

MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY (MeitY)

Sl. No.	Name	Designation
1.	Shri S. Krishnan	Secretary
2.	Shri Sushil Pal	Joint Secretary
3.	Smt. Asha Nangia	Scientist 'G'

DEPARTMENT OF COMMERCE (MINISTRY OF COMMERCE AND INDUSTRY)

Sl. No.	Name	Designation
1.	Shri Sunil Barthwal	Secretary
2.	Shri Ajay Bhadoo	Additional Secretary
3.	Shri Amitabh Kumar	Joint Secretary
4.	Shri Rakesh Kumar	Additional DGFT
5.	Shri Manish Chadha	Joint Secretary
6.	Shri Saket Kumar	Joint Secretary

LEGAL AND TREATIES (L&T) DIVISION (MINISTRY OF EXTERNAL AFFAIRS)

Sl. No.	Name	Designation
1.	Ms. Uma Sekhar	Additional Secretary (L&T) Division
2.	Dr. K.C. Sowmya	Director (L&T)

DEPARTMENT OF TELECOMMUNICATIONS (MINISTRY OF COMMUNICATIONS)

Sl. No.	Name	Designation
1.	Shri Gulzar Natarajan	Additional Secretary (T)
2.	Shri Devendra Kumar Rai	Joint Secretary (T)
3.	Shri Ashok Kumar Jain	Deputy Director General (IP)
4.	Shri Avinash Agarwal	Deputy Director General (IR)

CENTRE FOR TRADE AND INVESTMENT LAW (CTIL)

Sl. No.	Name	Designation
1.	Dr James J. Nedumpara	Professor & Head
2.	Ms. Sunanda Tewari	Consultant Legal at Assistant Professor Level, CTIL

(After the witnesses were called in)

2. At the outset, the Chairperson welcomed the representatives of the Ministry of Electronics and Information and Technology (MeitY), Department of Commerce (Ministry of Commerce and Industry), Legal and Treaties (L&T) Division (Ministry of External Affairs), Department of Telecommunications (Ministry of Communications) and Centre for Trade and Investment Law (CTIL) to the sitting of the Committee convened to have the presentation/evidence on the subject 'Impact of Information Technology Agreement in the new age'.

The Chairperson, in his opening remarks, briefed about the background of signing the Information Technology Agreement (ITA) at WTO, its mandate, scope, various categories of products covered, participants, policy guidelines, zero duty tariffs and the impact of ITA on the signatories along with its impact on global trade. He expressed the view that under ITA-1, India saw a boom in IT services and software while its hardware and component manufacturing ecosystem remained underdeveloped because unlike countries like China, which used tariffs and policies to build a strong domestic manufacturing base, India lacked the infrastructure and policy support needed to establish a robust ecosystem for electronics manufacturing. He further pointed out that most of the electronics manufacturing in India was limited to assembly of imported components rather than full-fledged production. He elaborated the initiatives taken by the Government of India to overcome these bottlenecks by introducing programmes/schemes like Production Linked Incentive (PLI) scheme, Semicon India Scheme, Electronics System Design and Manufacturing (ESDM) and 'Make in India' Initiative. He also highlighted that keeping in view the bitter experience of India with ITA-1; Government of India has not signed the ITA-2.

3. Then, the representatives of Ministry of Electronics and Information Technology (MeitY) made a power point presentation on ITA which, *inter-alia*, included (i) Background; (ii) Member States; (iii) Product Coverage, Scope, Review Mechanism and Exit Clause; (iv) Experience of India and other participating Nations; (v) Details about ITA-2; (vi) Modification of India's Tariff Schedule; (vii) WTO Dispute; and (viii) Impact of ITA on various sectors of Indian Market etc.

4. After that, the Secretary of Department of Commerce (Ministry of Commerce and Industry) provided his inputs on the subject which highlighted the debate of free and fair trade; trade policy in WTO; Import-export Statistics; Global Value Chain; Gains made by India under ITA-1 in comparison with USA, China and EU; Dimensions of Trades and Trade Agreements changing with the new Technology Innovations; and Initiatives taken by India in challenging the non-Tariff barriers, Restrictive Regulatory practices and Predatory pricing at WTO etc.

(Chairman, India Cellular & Electronics Association and Head, Academy of Business Studies and his colleagues were called in)

5. The representative of India Cellular & Electronics Association in his deposition before the Committee emphasized the point that ITA-1 had been extremely destructive for India. He further stated that India became one of the most successful countries in exporting Mobile Phones only because India was able to extricate Mobile Phones out of ITA-1 in 2015. He also suggested that India should extricate itself from the ITA-1 and refrain from signing ITA-2 or ITA-3.

6. Thereafter, the representative of Academy of Business Studies furnished his views of not having any Preferential Treatment for Developing countries in ITA-1. He also suggested that there should be a new Harmonized System (HS) for customs which should not tilt towards developed nations and there should be Zero duty on Parts, Components and Accessories.

(Chairman, India Cellular & Electronics Association and Head, Academy of Business Studies and his colleagues withdrew)

7. Thereafter, Members sought clarifications on various issues which, *inter-alia*, included (i) status of Carbon Border Adjustment Mechanism (CBAM) and its issue with EU; (ii) Ecosystem of Manufacturing in India; (iii) Share of Budget for R&D under PLI

Scheme; (iv) Consolidated list of Quality Control Orders (QCOs); (v) Option of opting out of ITA-1 and adopting FTAs at bilateral and multilateral levels and its impact; (vi) steps taken by MeitY for boosting manufacturing of electronic goods; (vii) achievements made under Digital India Programme; (viii) Feasibility of PLI Scheme concentrating on Local Production Centres in Rural areas of the Country to reduce Imports; and (ix) Issues of Cyber Security while doing International Trades with non-friendly nations etc.

8. The representatives of Ministries/Departments/Stakeholders responded to most of the queries raised by the Members. The Chairperson, then, directed that written replies to points on which information were not readily available may be furnished to the Committee within ten days.

9. Thereafter, the Chairperson thanked the representatives of Ministries/Departments/Stakeholders for deposing before the Committee.

The witnesses then withdrew.

A copy of verbatim record of the proceedings was kept on record.

The Committee, then, adjourned.

**STANDING COMMITTEE ON COMMUNICATIONS AND
INFORMATION TECHNOLOGY (2024-25)**

MINUTES OF THE TWENTY- SECOND SITTING OF THE COMMITTEE

The Committee sat on Tuesday, the 9th September, 2025 from 1500 hours to 1635 hours in Committee Room 'C', Parliament House Annexe, New Delhi.

PRESENT

Dr. Nishikant Dubey- Chairperson

Lok Sabha

2. Shri C. N. Annadurai
3. Dr. Rabindra Narayan Behera
4. Shri Anup Sanjay Dhotre
5. Shri Gurmeet Singh Meet Hayer
6. Shri Sanjay Haribhau Jadhav
7. Shri S. Supongmeren Jamir
8. Smt. Poonamben Hematbhai Maadam
9. Shri G. Kumar Naik
10. Shri Shafi Parambil
11. Dr. M.K. Vishnu Prasad
12. Shri Radheshyam Rathiya
13. Shri Ramasahayam Raghuram Reddy
14. Shri Arun Kumar Sagar
15. Shri Devesh Shakya
16. Shri Vishnu Datt Sharma

Rajya Sabha

17. Smt. Priyanka Chaturvedi
18. Shri Amar Pal Maurya
19. Shri Kartikeya Sharma
20. Shri Lahar Singh Siroya
21. Shri K.T.S. Tulsi

Secretariat

- | | | | |
|----|---------------------|---|----------------------|
| 1. | Shri Y. M. Kandpal | - | Additional Secretary |
| 2. | Smt. A. Jyothirmayi | - | Director |
| 3. | Shri Amrish Kumar | - | Deputy Secretary |
| 4. | Shri Rajesh Mohan | - | Deputy Secretary |

2. At the outset, the Chairperson welcomed the Members to the Sitting of the Committee convened to consider and adopt two Draft Subject Reports relating to (i) Ministry of Electronics and Information Technology and (ii) Ministry of Information and Broadcasting ,respectively, under the jurisdiction of the Committee and to have evidence of the representatives of Department of Telecommunications, DBN, BSNL, PGCIL, RAILTEL, Bharti Airtel, RJIL and CSC E- Governance Services India Ltd. on the Subject '**Review of the performance of Schemes/ Projects under Digital Bharat Nidhi (DBN) implemented by Public and Private Sectors**'.

3. The Committee, then, took up the following two draft Reports for consideration and adopted the same with slight modifications:-

(i) Draft Report on the Subject '**Impact of Information Technology Agreement in the new age**' relating to Ministry of Electronics and Information Technology

(ii) **XXXX.....XXXX.....XXXX.....XXXX....XXXX.....XXXX....XXXX....**

4. The Committee also authorized Chairperson to finalize the draft Reports and present them to the Hon'ble Speaker under Direction 71 A and seek orders for printing, publication and circulation of the Reports under Rule 280 of Rules of Procedure and Conduct of Business in Lok Sabha.

5. **XXXX.....XXXX.....XXXX.....XXXX....XXXX.....XXXX....XXXX....XXXX...**

6. **XXXX.....XXXX.....XXXX.....XXXX....XXXX.....XXXX....XXXX....XXXX...**

7. **XXXX.....XXXX.....XXXX.....XXXX....XXXX.....XXXX....XXXX....XXXX...**

The witnesses then withdrew.

A copy of verbatim record of the proceedings was kept on record.

The Committee, then, adjourned.

XXXX- Matter not related to this Report.