



Report on
Capacity Building Workshop (CBW)
On
WTO Issues
and
Electronics & Telecom Sector in India:
ITA-1 and ITA-E Agreements & WTO Disputes



February, 2024

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Report on
Capacity Building Workshop (CBW)

On

**“WTO issues and Electronics & Telecom sector in
India: ITA-1 and ITA-E agreements & WTO disputes”**

On 16th -17th February, 2024

Jointly organized by:

Centre for WTO Studies (CWS), CRIT, IIFT

&

National Institute of Communication Finance (NICF), DoT



DG's MESSAGE

In the era of rapid globalization and burgeoning international trade, understanding the intricacies of the global trade framework becomes imperative. The World Trade Organization (WTO) is a major institutional force contouring trade at a global level and its decisions and agreements deeply impact the developmental trajectory of nations. As we navigate the complexities of global trade, it is therefore exigent for us to acquaint ourselves with the requisite knowledge regarding the WTO principles and agreements and the ongoing trade issues in electronics & telecommunications sector. Against this backdrop, NICF in collaboration with Centre for WTO Studies (CWS), CRIT, IIFT, organized a collaborative capacity building workshop (CBW) on “WTO Issues and Electronics and Telecom Sector in India”.

The CBW stands as a testament to our commitment towards strengthening a deeper understanding of the trade dynamics and future prospects in the critical electronics & telecom sector, which has been a key piece of India's manufacturing and overall long-term development strategy. By bringing together an array of participants from both public and private sectors, we have laid the groundwork for a symbiotic dialogue and informed decision making. The ideas put forward in the workshop have been delineated by the Centre for Policy Studies and Research (CPSR), NICF in the form of a report. The report has been meticulously crafted by Shri Ankit Anand (Director, NICF) and Ms. Krittika Mukhopadhyay (Teaching & Research Associate, NICF), structuring the invaluable and practical inputs of the esteemed speakers from Centre for WTO Studies (CWS), CRIT, IIFT.

I commend the efforts of all involved in this workshop and extend my best wishes for its success. It is our hope that the CBW and this report initiates a conducive environment for understanding the trade dynamics followed by informed policy deliberations in the electronics and telecom sectors.

AUTHOR

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CPSR, NICF acknowledges the invaluable contribution of Centre for WTO Studies, Indian Institute of Foreign Trade (IIFT), New Delhi and the speakers Dr. Pritam Banerjee (Head and Professor (CWS)), Prof. Murali Kallummal (Head Administration (CRIT) & Professor (CWS)), Ms. Shailja Singh (Consultant (CTIL), CRIT) and Mr. Bipin Menon (Development Commissioner, Noida SEZ).

CPSR, NICF also recognizes the crucial role of following research papers in preparation of this report:

- Process of trade liberalization under the Information Technology Agreement (ITA): The Indian experience (Working Paper) by Dr. Murali Kallummal, CWS, IIFT (2012).
- Information Technology Agreement of WTO: Call for a Revisit (Working Paper) by Dr. K. J. Joseph, CWS, IIFT (2013).
- Is India Digitally Prepared for International Trade? (Discussion Paper) by Dr. Rashmi Banga, RIS (2018).
- Implications of Signing Information Technology Agreement (ITA-1) and Expansion of ITA (ITA-2) (Working Paper) by Dr. Rashmi Banga, CWS, IIFT (2020).
- Analyzing India's Position on the Information Technology Agreement by Takshashila Institution (2023)

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Executive Summary

The NICF & Centre for WTO Studies, CRIT, IIFT jointly conducted a Capacity Building Workshop (CBW) on **“WTO issues and Electronics & Telecom sector in India: ITA-1 and ITA-E agreements & WTO disputes”** on 16th -17th February, 2024.

The capacity building exercise was triggered by the need to address the felt competency gap in understanding the issues related to trade in telecom & electronics equipment, and representing India’s positions at WTO related to this domain in a more informed and nuanced manner. The purpose of the workshop was to apprise the government officers as well as private sector players of the negotiation & dispute resolution processes at WTO with focus on issues in electronics and telecom trade, especially the practical trade related concerns of the domestic industry arising out of ITA-1 & ITA-E agreements.

The purpose was also to encourage the PLI manufacturers and Make-in-India drive of GoI, by providing a collaborative platform to private players & government officers for discussion on practical trade related matters in telecom equipment manufacturing, guided by domain experts from the academia (CWS).

This Report seeks to capture the summary of the events and a discussion held during the CBW as well as tries to concretize the learning outcomes of the two-day workshop.

The first part of the Report is a brief on the overall flow of sessions, profile of participants, purpose of the workshop, areas of discussion and expected learning outcomes.

The second part is a handbook on basics of WTO which can help to understand the basic principles and agreements as well as structures and processes of WTO, including the dispute resolution bodies at WTO.

The third part focuses on the details of the ITA-1 & ITA-E agreements, and India's experiences under this agreement, with a special focus on the recent disputes under this agreement, including DS 582/584.

The final part elaborates the real practical concerns surrounding trade in electronics & telecom equipment discussed during the workshop, and while refraining from concrete policy prescriptions, tries to explore the issues and come up with broad suggestions.

Part I: The CBW on 16th - 17th February 2024

The NICF & Centre for WTO Studies, CRIT, IIFT jointly conducted a Capacity Building Workshop (CBW) on “**WTO issues and Electronics & Telecom sector in India: ITA-1 and ITA-E agreements & WTO disputes**” on 16th - 17th February, 2024.

The two days CBW was organized to understand WTO Agreements & Negotiations with a focus on India’s tariff treatment on telecom & electronic goods, emerging disputes and dispute resolution structures & processes in telecom equipment trade.

Participation

- Overwhelming response for the Workshop was received from the private sector, specifically PLI Manufacturers & related industry associations. Many important telecom manufacturers such as Samsung, HFCL, CISCO, Tejas, and VVDN etc., along with vital industry associations TEPC, TEMA, VoICE, MAIT, US-India Strategic Partnership Forum etc. participated in the workshop.
- 25 *Officers* from CCA Offices, LSA Offices as well as DoT HQ also attended the CBW.

Purpose

The purpose of the workshop was to apprise the government officers as well as private sector players of the negotiation & dispute resolution processes at WTO with focus on issues in electronics & telecom trade, especially the practical trade related concerns of the domestic industry arising out of ITA-1 & ITA-E agreements.

The purpose was also to encourage the PLI manufacturers and Make-in-India drive of GoI, by providing a collaborative platform to private players & government officers for discussion on practical trade related matters in telecom equipment manufacturing, guided by domain experts from the academia (CWS, IIFT).

Areas of Discussion

- WTO agreements & negotiations
- India's tariff treatment on certain goods in electronics & telecom sector
- Dispute settlement processes at WTO
- ITA-1 and ITA-E experiences of India.
- Pain points of industry vis-à-vis international trade in telecom equipment
- Concretize practical industry concerns & desired trade positions at WTO

Expected Outcomes

There were two clear Learning Outcomes which were expected:

- First would be that government officials are informed regarding the issues in telecom & electronics trade vis-à-vis WTO, and understand the nuances of this complex sector, so they are able to firm up India's positions and better represent our sector & country at WTO when the opportunity arises.
- Second would be that the practical concerns and desired positions of the private sector are discussed and understood. We hope to concretize the issues, the various probable solutions, trade-offs involved with each path and move to a clear position regarding the issues and proposed solutions, which can then be carried forward through official channels.

Flow of Events & Sessions



Mr. Manish Sinha, Member (Finance), Department of Telecommunications, Government of India inaugurated the two-day workshop at the NICF, Ghitorni, New Delhi. In his inaugural address, Mr. Sinha emphasized the urgent need to address the competency gap in understanding the trade related concerns of the telecom manufacturers and navigating intricate negotiation processes at WTO, with a specific focus on detailing and further strengthening India's positions. Representatives from the private sector and WTO specialists shared their opinions on expectations from the trade Policy and positions at WTO, which resonated deeply, serving as a catalyst to further explore the intricacies of the subject.

Prof. Murali Kallummal, Head Administration (CRIT) & Professor (CWS), provided a detailed introduction on "WTO Agreements: Special Reference to NAMA Scheduling and Issues of Transposition Trading cards" and shared India's experiences related to ITA-1 and ITA-Expansion, with a focus on need for deeper industry-government collaboration for discussing future transposition of tariff lines and pre-empting such issues. Issues related to Inverted Duty Structure in the telecom equipment manufacturing ecosystem were also discussed.

Dr. Pritam Banerjee, Head and Professor (CWS), conducted a session on the Global Electronics Industry, discussing industry trends and their implications for India, and focused on the rise in Internet of Things (IoT) ecosystem across the world, and the need to boost our manufacturing and exports during this ongoing fourth industrial revolution.



Ms. Shailja Singh, Consultant (CTIL), CRIT, explained the "Dispute Settlement System of WTO: Process and Procedures with Special Focus on the DS582" through an interactive session, wherein the

consensus approach of WTO, as well as the ongoing conundrum of the appellate authority and sanctioning powers were well explained.

On the second day, Mr. Bipin Menon, Development Commissioner, Noida SEZ, shared insights on India's tariff treatment on multiple electronic goods over last ten years spanning many tariff lines under ITA-1 & ITA-E schedules and conducted a session aimed at scaling up Electronics Manufacturing in India for participants from industry, academia, and government.



Towards the conclusion of the workshop, Mr. Bipin Menon, Dr. Pritam Banerjee, and Prof. Murali Kallummal shared their perspectives on the overall Aspects of Global and India's Electronic Industry through an open house Q&A session, and addressed queries of many manufacturers related to multiple export related issues such as SCOMET lists and issues arising out of misclassification of certain items & raw materials.

The initiative received widespread appreciation from all participants, particularly from the PLI (Production Linked Incentive) manufacturers such as Tejas Network Limited, Samsung India Electronics Pvt. Ltd., Bluetown India, VVDN Technologies Pvt. Ltd., and industry associations including MAIT, TEMA, and USISPF as a unique collaborative platform. The stakeholders emphasized the necessity for more such platforms, emphasizing the importance of bringing together policymakers, industry representatives, associations, and academia for an open and constructive exchange of ideas. Such collaborative discussions were recognized as essential in guiding policy decisions and fostering an environment conducive to ease of doing business.

Part II: Basics of WTO Agreements & Principles

General Agreement on Tariffs and Trade

The roots of GATT could be traced back to the Bretton Woods Conference in 1944 that not only transformed post-World War II global financial system, but also established two cornerstone institutions: The International Monetary Fund and The World Bank (Georgetown Law Library)¹. Alongside, the idea of an accompanying institution intended for regulating international trade among nations, The International Trade Organization (ITO), was also put forward in the conference, which was further solidified by signing of the Havana Charter (1947) by 53 countries (Barnor et al., 2015)², which failed to materialize due to US Congress' refusal to ratify the Havana Charter in the 1940s. Consequently, GATT emerged as an alternative framework of series of multilateral legal agreements, with initial negotiations by 15 countries. GATT was officially concluded in 1947, with 23 countries, designed to eradicate the quotas and lower the tariff rates among the nations that are party to the agreement. GATT proved to be a compelling lever of liberalizing world trade. The GATT, therefore, became the only multilateral agreement, for the next 47 years until the establishment of World Trade Organization (WTO) in 1995. The basic legal tenets of the GATT largely remained unaltered in almost fifty years, with evolution taking place overtime like development sections and plurilateral agreements, through multilateral negotiations or “trade rounds”, culminating in the Uruguay Round (1986-94) leading to the birth of the WTO (Information and External Relations Division WTO, 2015)³.

World Trade Organization

WTO, set up in 1st January, 1995, is the apex intergovernmental organization headquartered in Geneva, Switzerland responsible for overseeing the rules of

¹Bjork, C. (n.d.). From GATT to the WTO: An Overview. In Georgetown Law Library, International Trade Law Research Guide. (Available at: <https://guides.ll.georgetown.edu/c.php?g=363556&p=4108235>).

² Barnor, C., Adu-Twumwaa, D., & Osei, P. H. (2015). The Role and Functions of the International Trade Organization (ITO) and the World Trade Organization (WTO): The Major Differences and Similarities. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 24(6), 92-101.

³WTO. (n.d.). Information Technology Agreement- An Explanation. (Available at: https://www.wto.org/english/tratop_e/inftec_e/itaintro_e.htm)

international trade and facilitating trade negotiations and settlement of disputes among parties.

Basic Principles of WTO

As discussed by Prof. Kallummal, Head Administration (CRIT) & Professor (CWS), during the CBW, following is the list of GATT Articles, inter alia, aligning with the basic principles of WTO.

1. Article 1: General Most Favored Nation Treatment (MFN)

MFN treatment requires the countries to treat their trade partners equally, without discrimination and favors like lower tariff for certain partners.

2. Article II: Schedule of Concessions

This corroborates non-discrimination among contracting parties in their trade agreements, barring certain products from custom duties and provisioning “dispute resolution.

3. Article III: National Treatment on Internal Taxation and Regulation

Discrimination against the imported products is prohibited by ensuring no higher internal taxes or charges applied compared to domestic products.

4. Article XI: General Elimination of Quantitative Restrictions

Countries under GATT agreement are barred from using trade impeding tools other than tariffs excluding cases of critical shortages and certain sector controls.

WTO: Scope of Coverage

The WTO covers a wide range of areas. The spectrum of the coverage extends from agriculture to intellectual property to information technology. WTO also talks about Anti- Dumping Duties (ADD), Countervailing Duties (CVD), Special Safeguard mechanisms (SSM) and other measures. The main points

regarding various agreements can be briefly summarized as under (Understanding the WTO: Agreements series)⁴:

1. Full Coverage on Agricultural and Non-Agricultural sector

Agreement of Agriculture (AoA)

The AoA is directed towards establishing a fair and market oriented agricultural trading system, committing towards domestic support, export subsidies, and market access while invigorating the GATT rules and regulation for greater operational efficacy. AoA accentuates greater handholding for rural economies with minimal trade distortions, exempting least developed countries from any reduction commitments and addressing non-trade related areas like food security, environmental preservation. Developing countries are bejeweled with special treatment, exalting their export opportunities. The agreement covers a plethora of products, including basic commodities like wheat, milk, live animals; processed items like bread, butter, meat chocolates, sausages etc., and certain no-food items, excluding fisheries and related products.

Bound Tariff Limits

International trade negotiations entail countries to make commitments for opening their markets by reducing custom duties, a process documented in their legally binding tariff schedules. So, tariff schedule is responsible in outlining the maximum tariff levels of each country by product, along with specified timelines for materializing them, which are called the Bound Tariffs. The Uruguay Round and the WTO negotiations led to tariff reduction commitments, with developed countries agreeing to an average cut of 36% over six years, developing countries to an average cut of 24% over ten years and least developed countries to bind all tariffs without reduction on all agricultural products.

⁴World Trade Organization Information and External Relations Division. (2015). Understanding the WTO. WTO Publications. 5th ed.

Non-Agricultural Sector - Non-Agricultural Market Access (NAMA)

The NAMA negotiations of WTO are based on the Doha Round of 2001, having reference to the trade negotiation on products other than agriculture (industrial products). During the NAMA negotiations, the WTO members discussed the terms and procedures for lowering or eliminating the non-tariff measures and custom duties on industrial goods. The products covered under NAMA are marine products, chemicals, rubber products, wood products, textiles and clothing, leather, ceramics, glassware, engineering products, electronics, automobiles, instruments, sports goods and toys. The negotiations mostly revolve around the bound tariffs. Whereas in NAMA negotiations, there are certain unbound tariffs, i.e., tariffs without any binding commitments on them. For instance, India at the Doha Round made commitments with over 31% of its NAMA tariff lines remaining unbound. In addition to that, the Trade Ministers at the Doha Round deliberated the reduction or elimination of tariff peaks, high tariffs and tariff escalation on NAMA products. Hence, a non-linear formula, the Swiss Formula (the one with two sets of coefficients with the assurance that the developed countries would take higher tariff cuts than developing countries) was proposed for the same.

Non- Tariff Measures (NTMs)

NTMs are the policy measures other than the regular custom tariffs that have the capability to impede international trade in goods by tampering the traded quantities, prices, or both (UNCTAD)⁵. Import restrictions like quotas or import bans, variable import levies, minimum import prices, sanitary and phytosanitary measures, discretionary government powers when issuing import licenses, voluntary export restraint agreements are some of the examples of NTMs.

NTMs can be as crucial as tariffs to determine market access. AoA, NAMA, or other agreements per se do not forbid NTMs of all sorts; governments are allowed to implement certain NTMs as long as they are aligned with GATT or are WTO consistent.

⁵UNCTAD. (n.d.). Introduction to NTMs. (Available at: <https://unctad.org/topic/trade-analysis/non-tariff-measures/NTMs-Introduction>)

- **Agreements on Technical Barrier to Trade (TBT) and Sanitary and Phytosanitary (SPS) Measures**

TBT arise from the legal mandates a nation implements, which can pertain to, inter-alia, product safety standards, environmental protection, national security concerns (European Commission)⁶. The TBT Agreement ensures all technical regulations, voluntary standards, and auxiliary procedures to clinch compliance, excluding the ones related to SPS measures as per the SPS Agreement, do not generate undue barriers to trade along with providing due acknowledgement to the members' right to implement these for legitimate reasons (Agreement on TBT, WTO)⁷.

The SPS Agreement pertains to the regulating food safety, plant and animal health. Per se, the SPS measures may cause restrictive trade, if used beyond necessity, either for protectionism or due to technical complexities. Hence, the SPS Agreement will be a crucial lever to reduce the plausible arbitrariness of the decisions while permitting the governments to judiciously carry out the appropriate SPS protection.

2. General Agreement on Trade in Services (GATS)

GATS was a byproduct of the Uruguay Round and could be called a counterpart of the GATT. This is because GATS possess the same objectives as GATT but in the context to services. Thus, GATS is responsible for creating a viable international trade rule, providing fair and equitable treatment (principle of non-discrimination), invigorating economic growth through policy commitments, fostering international trade and development by gradual liberalization. GATS is extended to all service sectors, with two exceptions: The Article 1(3) of GATS "services supplied in the exercise of governmental authority" and Annex on Air Transport Services, which talks about measures that impact air traffic rights and services directly associated with the exercise of these rights.

⁶European Commission. (n.d.). Technical Barriers to Trade. (Available at: https://policy.trade.ec.europa.eu/help-exporters-and-importers/accessing-markets/technical-barriers-trade_en#:~:text=The%20European%20Union's%20participation%20in,procedures%20to%20follow%20WTO%20members.)

⁷World Trade Organization. (n.d.). Technical barriers to trade. (Available at: https://www.wto.org/english/tratop_e/tbt_e/tbt_e.htm)

3. TRIPs – Technology

The Trade- Related Aspects of Intellectual Property Rights (TRIPS) is a key facilitator of trade in knowledge and creativity, and aids in resolving the Intellectual Property (IP) related trade disputes. This multilateral agreement facilitates the WTO members a flexibility to pursue their domestic policy goals. The TRIPs Agreement covers seven categories of IP rights: copyright, trademarks, geographical indications, industrial designs, patents, integrated circuits and undisclosed information or trade secrets.

4. Plurilateral Trade Agreements – Annex 4

Annex 4 talks about some other plurilateral trade agreements like Agreement on Trade in Civil Aircraft, Agreement on Government Procurement, International Dairy Agreement, and International Bovine Meat Agreement.

5. Anti- Dumping, Subsidies, Safeguards: Contingencies

The WTO Anti-Dumping Agreement (ADA) addresses unfair trade practices such as “dumping” by fixating rules for permissible counter-responses from governments if domestic industries are injured. It also provides methods for calculating the extent of dumping for an anti-dumping measure to be imposed (like extra import duties).

The WTO Agreement on Subsidies and Countervailing Measures disciplines the use of subsidies and governs actions the countries can opt to curtail their effects. It distinguishes between prohibited subsidies distorting trade and actionable subsidies, permitting countervailing measures on imports upon injuring domestic producers. In addition, subsidy investigations, exemptions, and special treatment for developing countries are also included.

WTO members may temporarily restrict imports through “safeguard” actions in case the domestic country is heavily impacted by an imports spurt. Safeguard measures should be transparent and based on established rules, and should only be applied if at all necessary to cure the injury to the domestic industry, with

compensation available for affected exporting countries and limited retaliation permitted.

6. Information Technology Agreement (ITA)

The ITA is a plurilateral agreement deliberating a gradual elimination of tariffs on a wide range 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. This has been elaborated in detail in the next parts.

Dispute Settlement Mechanism (DSM)

Disputes in international trade are likely to happen when a member government finds another member government's actions to be unjust and violating an agreement that has been in the WTO. Reconciliation of such disputes is a key activity for the WTO, boasting one of the most active and efficient international dispute settlement mechanisms globally. As quoted by Ms. Shailja Singh, Consultant, CRIT, the Dispute Settlement Mechanism of the WTO is considered to be the "Crown Jewel" of the WTO. The DSM harbors an objective to achieve a "positive solution" to the disputes through the gateway of, if possible, a mutually agreed solution (Article 3.7 DSU)⁸. If not, then parties may resort to the panel or appellate process, or explore alternate modes of dispute resolution. The General Council functions as the Dispute Settlement Body in order to address the disputes.

If consultation between the "Contracting Parties" in question cannot yield any satisfactory resolution, the same dispute can be presented before the DSB regarding any alleged "nullification or impairment of benefits" as suggested under Paragraph 2 of Article XXIII of GATT. Earlier, such disputes were

⁸Understanding on rules and procedures governing the settlement of disputes. (n.d.). Annex 2 of the WTO Agreement, Article 3.7. In Dispute Settlement: Legal Text. (Available at: https://www.wto.org/english/tratop_e/dispu_e/dsu_e.htm)

tackled by a “working group” of the parties involved along with neutral parties, lacking legal authority. So, eventually, this working group was formalized into a “panel”, comprising of non-governmental or organizational panelists, and capable of legally judging the disputes. Panel meetings, convened at the WTO premises, last one to three days. (METI, Chapter 16)⁹.

The WTO DSM features a two-tier appellate system, the Appellate Body, as presented by Ms. Shailja Singh during the CBW. The DSB decisions, by and large, are made by consensus. But certain issues pertaining to the establishment of panels, adoption of Appellate Body reports, and compensation of concession, a “negative consensus method” is applied. This method refers to the practice of approving the requested action unless all the participant countries of the DSB meeting object unanimously (METI, Chapter 16)¹⁰.

The main players of the DSM are:

- The Parties: WTO Members only
- All the members of the Dispute Settlement Body (DSB)
- The Panel (3 or 5 panellists, *ad hoc, established by the DSB*)
- Appellate Body (7 persons)
- WTO Secretariat (Legal Affairs/Rules Division; AB Secretariat)

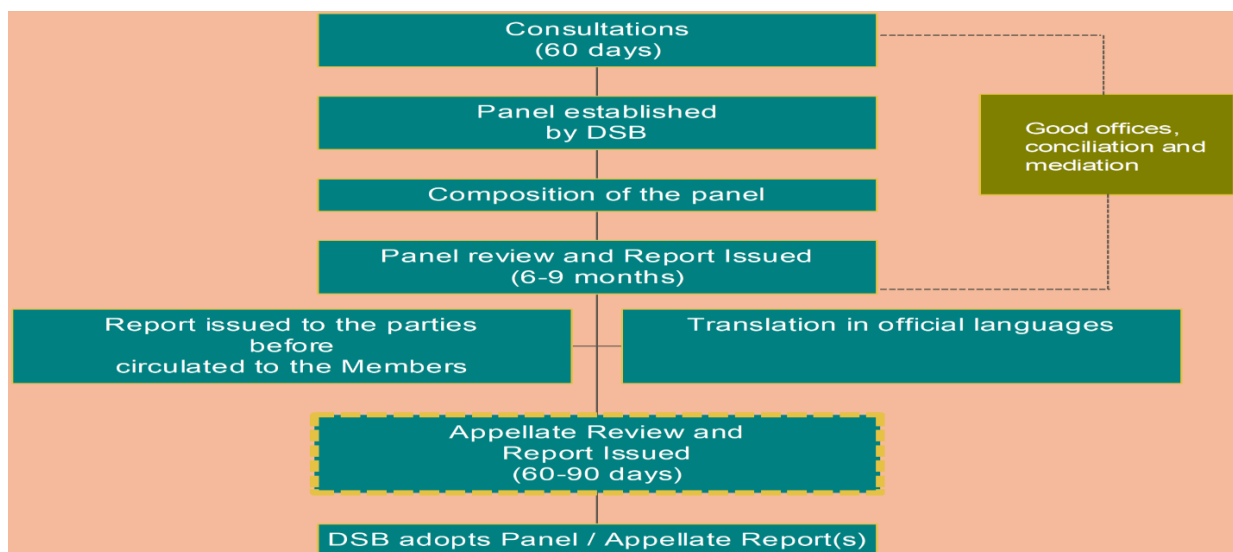
The first panel meeting usually takes place within two weeks maximum as soon as the respondent provides a written submission, and it initiates with a briefing on the meeting’s procedure followed by oral statements from both the complainant and respondent; panel interrogations; and question and answer rounds between the parties in dispute. Third party participation is limited to this session. This is followed by second substantive meeting after about two to three months, focusing on counter arguments to the claims in the first meeting. The panel then issues an interim report pertaining to the findings and conclusions.

⁹Ministry of Economy, Trade and Industry. (n.d.). Chapter 16:DisputeSettlement Procedures Under WTO. METI. (Available at: https://www.meti.go.jp/english/report/downloadfiles/2012WTO/02_16.pdf)

¹⁰Ministry of Economy, Trade and Industry. (n.d.). Chapter 16:DisputeSettlement Procedures Under WTO. METI. (Available at: https://www.meti.go.jp/english/report/downloadfiles/2012WTO/02_16.pdf)

Shortly after the disputing parties' feedback, a final report is prepared by the Appellate Body. Post DSB's adoption of the report, the targeted members must communicate their intent to comply, with a reasonable compliance period not exceeding 15 months. Non-compliance may lead to adoption of countermeasures by the complainant, like suspension of concessions. A flowchart of the dispute settlement mechanism can be seen as below (Singh, 2024):

Figure 1: The Structure of the DSB of the WTO



Source: Ms. Shailja Singh's presentation, Consultant, CRIT (Singh, 2024)

One example of non-compliance of the report, as discussed by Ms. Shailja Singh during the CBW, was the poultry dispute filed by USA against India in 2012, where India allegedly failed to meet the international trading norms by using a safeguard measure by banning imports of poultry meat and eggs from the USA. India failed to comply beyond 18 months (DTW, 2015)¹¹.

The DSB is required to adopt the Appellate Body report and the parties in question ought to resort to it unconditionally. Nonetheless, if the DSB harmoniously decides not to adopt the report within 30 days of its circulation to the members, then in that case the DSB may choose not to. This process will not

¹¹Down To Earth. (2015). US wins poultry case against India at WTO. (Available at: <https://www.downtoearth.org.in/news/us-wins-poultry-case-against-india-at-wto-50081>)

affect the members' right to be eloquent about their opinions on the Appellate Body report (Dispute Settlement System Training Module WTO, 2003)¹².

Quoting Ms. Shailja Singh, The DSM is facing an “Appellate Body Crisis” since July 2017. The US impeded the appointment of new members to the Appellate Body, due to the systemic issues of the Appellate Body’s “overreach” and “digression from the rules highlighted in the DSU”. As summarized by Ms. Shailja Singh during the CBW, the concerns of the US over the WTO’s DSM (President’s Trade Policy Agenda, 2018)¹³ are:

- Failure to stick to the 90-days framework for reconciling appeals (Article. 17.5)
- Continued participation of individuals who are no longer the members of the Appellate Body (Rule 15)
- AB review of facts and Members’ domestic law de novo (Article 17.6)
- Issuing advisory opinions on matters not essential to dispute resolution
- AB claims that its reports should be treated as precedents

Thus, as of now, the WTO Appellate mechanism is non-functional, and all appeals are essentially, appeals into the void.

¹² World Trade Organization. (2003). Dispute Settlement System Training Module. (Available at: https://www.wto.org/english/tratop_e/dispu_e/disp_settlement_cbt_e/intro1_e.htm)

¹³United States Trade Representative. (2018). Trade Policy Agenda: 2018: 2017 Annual Report of the President of the United States on the Trade Agreements Program. United States Government Printing Office. (Available at: <https://ustr.gov/sites/default/files/files/Press/Reports/2018/AR/2018%20Annual%20Report%20FINAL.PDF>)

Part III: Global Electronics Sector, WTO Issues and India's Experiences with the ITA- 1 and ITA-E Agreements and Navigating the Associated Disputes

Understanding Global Electronics Sector Trends: Assessing Implications for India

The telecom, ICT and electronics manufacturing sector is one of the fastest growing sectors in the world trade. As an instance, Dr. Pritam Banerjee, Head and Professor (CWS), analyzed during the CBW that the consumer electronics revenue worldwide is projected to reach USD 1177 billion by FY 28 and its share of the total market will increase from 7% to 8%. The IoT market reportedly generated revenue of USD 970 billion worldwide. The projected global demand of IoT by 2028 would be USD 2205 billion and its market share would increase from 2% to 3%. On the basis of 2023 data, Dr. Banerjee concluded in the workshop that India is and will continue to be the third largest market in the consumer electronics market. India's global trade share in this sector is merely 2%. India is majorly a buyer economy in the electronics sector, heavily reliant on imports and limited exports. None of the Indian firms are leading exporters in the electronics or IoT space. Top position in this domain is predominantly occupied by the firms of the US and China firms and some firms of French, Germany, Korea, Japan, Netherlands, Sweden, Switzerland and Taiwan. One of the reasons, as pointed by Dr. Banerjee, of India being heavily reliant on imports in the electronics sector is that the economies of scale dominated by the domestic market is not liberated. Along with that, there are several other challenges in domestic electronics manufacturing industry in India.

Historical challenges faced by the ESDM: Electronics Systems Design and Manufacturing in India are multifaceted.

- **Cost Differential:** India majorly faces a cost disability of up to 20% as compared to China and Vietnam, thereby impacting the competitive advantage of the manufacturing in India, especially cell phones (Indian

Cellular & Electronics Association, 2018)¹⁴. This is due to factors like tariffs, labor laws, taxation, lack of state led investments, inter alia.

- **Tax Structure and Duties:** Incidence of high tax levies and import substitution policies in India may obstruct the global manufacturers from establishing operations. Hence, there needs to be a balance between import substitution policies and attracting global value chains.
- **Absence of Component Ecosystem:** In the Indian context, robust component ecosystem is a major lacuna; hence the heavy reliance on imports and increasing costs. This in turn affects India's competitiveness in manufacturing key components. Even more worrisome is the fact that India lags behind in manufacturing of even those components which require cheap labor and are possible to be made in India (MeitY)¹⁵.
- **Ease of Doing Business:** India's industrial land development support is below par, leading to subsequent delays and increased costs. Compliant time and scrutiny are also deterrent in India, along with lesser number of free trade agreements as compared to China and Vietnam.
- **Government Incentive Scheme:** Incentive schemes like the Production-Linked Incentive (PLI) program may not be instrumental for small and medium players due to eligibility criteria and incentives based on sales target. Therefore, a more flexible PLI scheme is a pressing priority.

Delving into the Details of Information Technology Agreement

The Information Technology Agreement, in general parlance ITA-1, is a sector specific plurilateral agreement that took place in 13th December 1996 at the Singapore Ministerial Conference, in order to eliminate the tariff on certain goods or the ITA goods. ITA-1 was initially signed by 29 participants that later expanded to 82 signatories including India. Later on, in 2015, at the Nairobi

¹⁴India Cellular & Electronics Association. (2018). Making India a Global Hub for Handset Manufacturing: A Study on Disabilities and Smart Policy Measures Including Replacement of Merchandise Export Incentive Scheme (MEIS) ICEA 2018. (Available at: <https://icea.org.in/blog/wp-content/uploads/2021/02/DisabilityReport.pdf>)

¹⁵Ministry of Electronics and Information Technology. (2020). Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS). (Available at: <https://www.meity.gov.in/esdm/SPECS>)

Ministerial Conference, the expansion and revision of ITA-1, known as ITA-II or ITA-E, was concluded and signed by 25 participants, including major players such as US, EU and China, initially. ITA-II currently has 54 participants. India notably is not a participant to ITA-E. ITA stands out as a considerable tariff liberalization agreement put up at the WTO, after its establishment in 1995. It is because, as an aftermath of ITA, elimination of import duties on products worth USD 1.6 trillion in 2013 was reported which stands as almost thrice of what was signed in 1996 (WTO data)¹⁶.

The basic tenet of ITA- I and ITA- E agreements were to progressively eliminate the tariff on imports of ITA goods from any member of the WTO, even if not a ITA signatory per se. A noteworthy implication of this is that exports of the specific products from the non-WTO members will also experience advantages through the decreased tariff within the ITA economies. Thus, the tariff elimination is implemented on an MFN basis for even the non-ITA WTO members. Later on, the list of the specific products was subject to further rounds of revision and a new list of products subject to gradual elimination of tariff bounds were created between 2016- 2019, which came to be known as the ITA- II goods.

Also, notably, ITA-E is not an MFNised agreement the way ITA-1 is, in the sense that only the signatories of the agreement and not all WTO members will stand to reap export advantages for ITA economies for the specific products added in the ITA-E agreement.

¹⁶WTO. (n.d). Information Technology Agreement — An Explanation. Information Technology: Introduction. (Available at: https://www.wto.org/english/tratop_e/inftec_e/itaintro_e.htm)

According to WTO, the list of participants of current ITA-1 which represents 82 WTO members is:

Figure 2: ITA Members



Source: Prof. Murali Kallummal's presentation

Afghanistan (Accession); Albania (Accession); Australia; Bahrain; Canada; China (Accession); Colombia; Costa Rica; Dominican Republic; Egypt; El Salvador; European Union; Georgia (Accession); Guatemala; Honduras; Hong Kong, China; Iceland; India; Indonesia; Israel; Japan; Jordan; Kazakhstan, Republic of (Accession); Korea, Rep. of; Kuwait; Kyrgyz Republic (Accession); Lao PDR; Macao, China; Malaysia; Mauritius; Moldova (Accession); Morocco; New Zealand; Nicaragua; Norway; Oman (Accession); Panama; Peru; Philippines; Qatar; Saudi Arabia, Kingdom of (Accession); Singapore; Seychelles (Accession); Switzerland/Liechtenstein (2); Chinese Taipei; Thailand; Tajikistan (Accession); Turkey; Ukraine (Accession); United Arab Emirates; United Kingdom; United States; and Viet Nam.

Montenegro and the Russian Federation, whose accession is awaiting ratification, are expected to join soon.

Mexico, Brazil, Tunisia, South Africa, Argentina and Chile are some notable WTO members who did not join the ITA.

Categories of Products under ITA-1:

The main categories of products under ITA-1 based on HS 1996 that was subjected to an eliminated tariff are:

- Computers
- Semiconductors
- Semiconductor manufacturing and testing equipment
- Telecommunication apparatus
- Instruments and apparatus
- Data-storage media and software and
- Parts and accessories.

ITA- 1 stands out as a unique plurilateral agreement as this agreement is the only sectoral agreement which mandates zero tariffs for 203 items, as per as the WTO. These 203 items are spread over two attachments. Attachment A consists of the HS headings or portion to be covered for that matter and Attachment B has the specific products that should be covered by an ITA wherever they are classified in the HS (Santana, 2012)¹⁷. Within Attachment A, Section 1 covers 112 items under IT products that corresponds to 110 HS1996 subheadings (6 digits) and Section 2 covers 78 items under Semiconductor manufacturing and testing equipment and parts which corresponds to 45 HS1996 subheadings. Attachment B includes product descriptions but not corresponding to HS code, irrespective of whether they are included in Attachment A. The descriptive approach in the Attachment B list is designed to cover products regardless of specific HS codes and to address divergent national positions in coverage of complex, multifunction products. In addition to that, MFN status has been extended to the non-ITA members. Hence ITA-1 stands as an MFNised agreement.

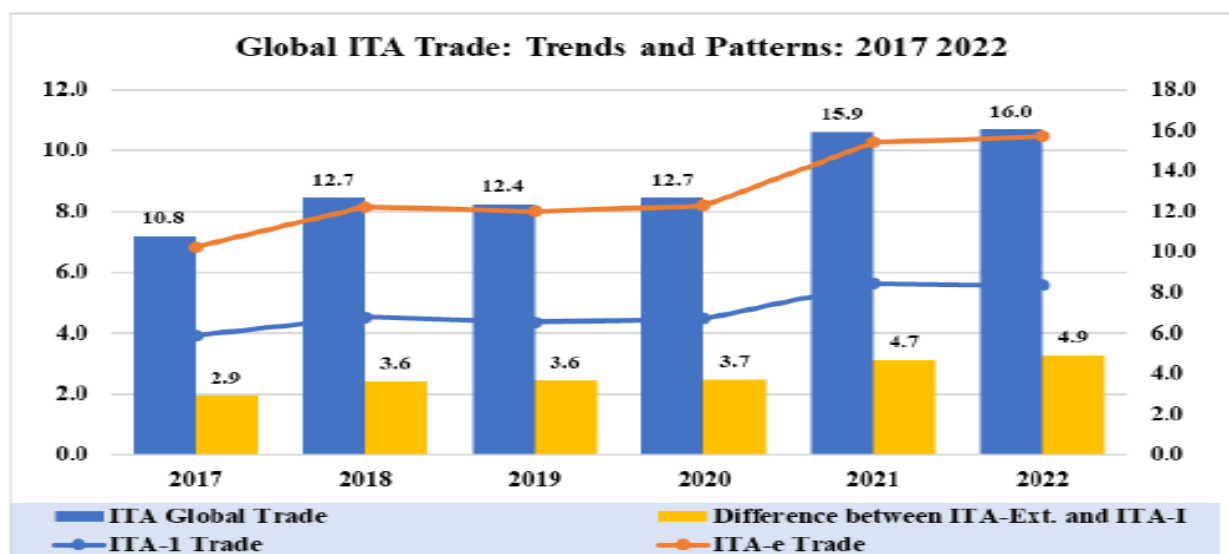
The ITA-E list in the general parlance is the updated version of the ITA-I list of goods. ITA-E basically relates to increasing the coverage of ICT products on which customs duty would be bound at zero. Under ITA-E, a list of 95 products

¹⁷ Santana, R. (2012). Information Technology Agreement: Classification Divergences. Market Access Division, World Trade Organization. (Available at: https://www.wto.org/english/tratop_e/inftec_e/symp_may12_e/speaker22santana.pdf)

categorized at the six-digit HS code level designated to serve the purpose of information processing and communication via electronic means, encompassing functions such as transmission and display termed as the “ICT Goods” are added (UNCTAD, 2015)¹⁸. The ITA-I HS2007 model list covered only 20% of the product codes related to the ICT goods, and hence the ITA-II/E seeks to supplement and update the ITA-I list of goods. In a nutshell, ITA-1 primarily deals with the physical IT products and conventional carrier media for software. While, ITA-E covers products like electronic transmissions, including software and digital content, along with digitized and digitizable items like photographic or cinematographic products, video-recording and reproduction apparatus, loudspeakers, medical appliance such as MRI machines, touch screen, GPS and navigation tools, video game consoles, portable electronic educational devices, inter alia, additional to the physical IT products of ITA-1 (Banga, 2020)¹⁹.

Global ITA Trade Scenario

Figure 3: Total ITA Trade



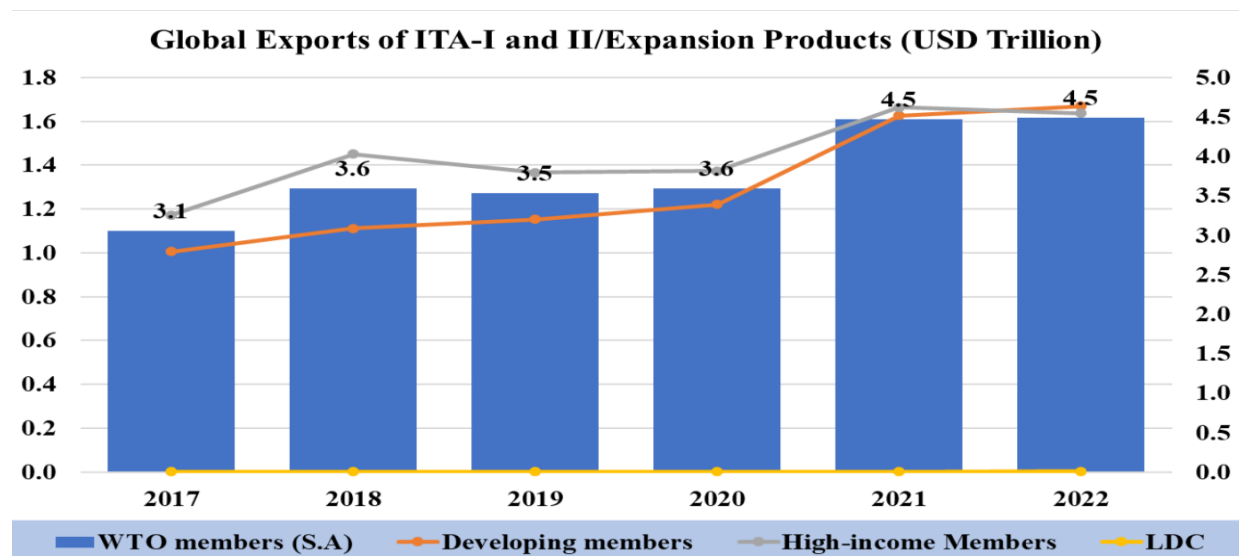
Source: Prof. Murali Kallummal's compilation

¹⁸UNCTAD. (2015). Trade in ICT Goods and the 2015 Expansion of the WTO Information Technology Agreement. (Available at: https://unctad.org/system/files/official-document/tn_unctad_ict4d05_en.pdf)

¹⁹ Banga, R. (2020). Implications of Signing Information Technology Agreement (ITA-1) and Expansion of ITA (ITA-2) Working Paper No. CWS/WP/200/57, Centre For WTO Studies, Delhi.

From the figure above, as presented by Prof. Murali Kallummal during the CBW, it is evident that the growth in the trade of ITA products globally has witnessed substantial growth rate of 8%, growing from almost USD 11 trillion to USD 16 trillion (2017-2022 data). Within this bigger picture, trade of ITA-1 products increased from USD 3.9 trillion to USD 5.6 trillion. Also, the gap between ITA-1 and ITA- E is gradually widening, showing a higher trade volume in ITA- E products.

Figure 4: Exports of ITA-I and II Products:



Source: Prof. Murali Kallummal's compilation

Globally, ITA imports have increased from USD 3.2 trillion to USD 4.8 trillion, with notable shares from both developing and developed nations. Analyzing the global trends over time, it could be noted that the gap between the two groups is declining.

India's Experiences of ITA-1 and ITA- E

The table enumerates the India's commitments under ITA-1. The rationale behind choosing the years 2000 and 2005 is based on the shocks to the domestic producers (Kallummal, 2012)²⁰. Also, it was found that the tariffs on certain

²⁰Kallummal, M. (2012). Process of trade liberalization under the Information Technology Agreement (ITA): The Indian experience (Working Paper). New Delhi: Centre for WTO Studies, IIFT

products during these two years were brought to zero. 96 lines in 2000 and 121 lines in 2005 were reduced to zero. In totality, there were 217 six-digit lines that were reduced to zero following the ITA-1 signing, on an MFN basis, as analyzed and presented by Prof. Murali Kallummal during the workshop.

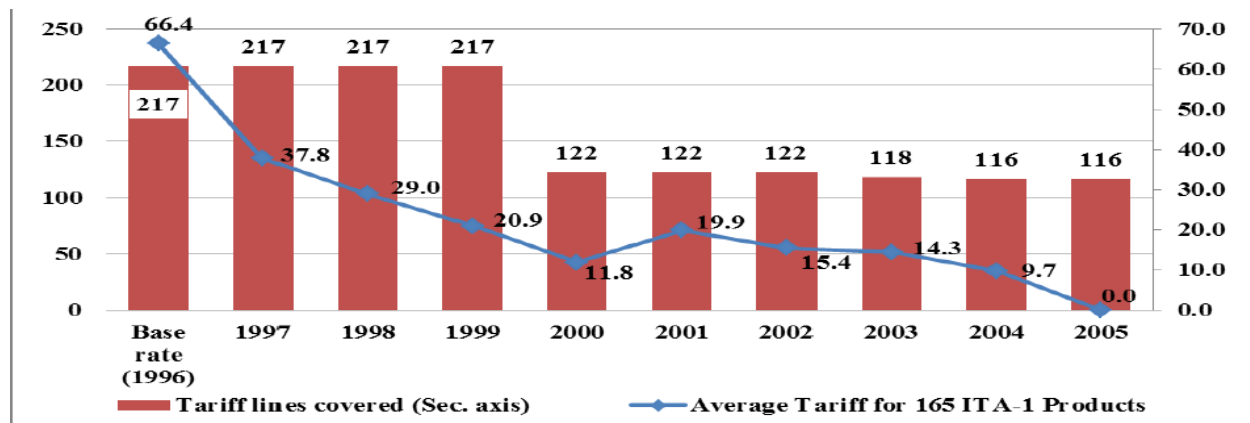
Table 1: Tariff reduction Schedules under the ITA-I

Sl.no	Base duty (%)	2000	2005	Total ITA-1 lines
1	12	6	0	6
2	22	-	3	3
3	31.7	7	0	7
4	32	-	6	6
5	35	5	5	10
6	40	8	5	13
7	42	-	10	10
8	45	1	0	1
9	50	2	0	2
10	52	1	25	26
11	55	1	0	1
12	61.7	15	2	17
13	66.7	12	26	38
14	70	6	1	7
15	76.7	2	13	15
16	83.4	3	0	3
17	90	10	3	13
18	110	11	17	28
19	116.7	6	5	11
Number of ITA Lines Reduced to Zero		96	121	217

Source: Prof. Murali Kallummal's compilation

Out of these 217 product lines, 175 unique products were identifiable. However, due to paucity of data, only 165 products as a part of the India's ITA commitments could be analyzed. A scheduled decline of the average tariffs for these 165 products could be noticed, going from 66.4% to 37.8% in one year itself, and then to 0 by 2005.

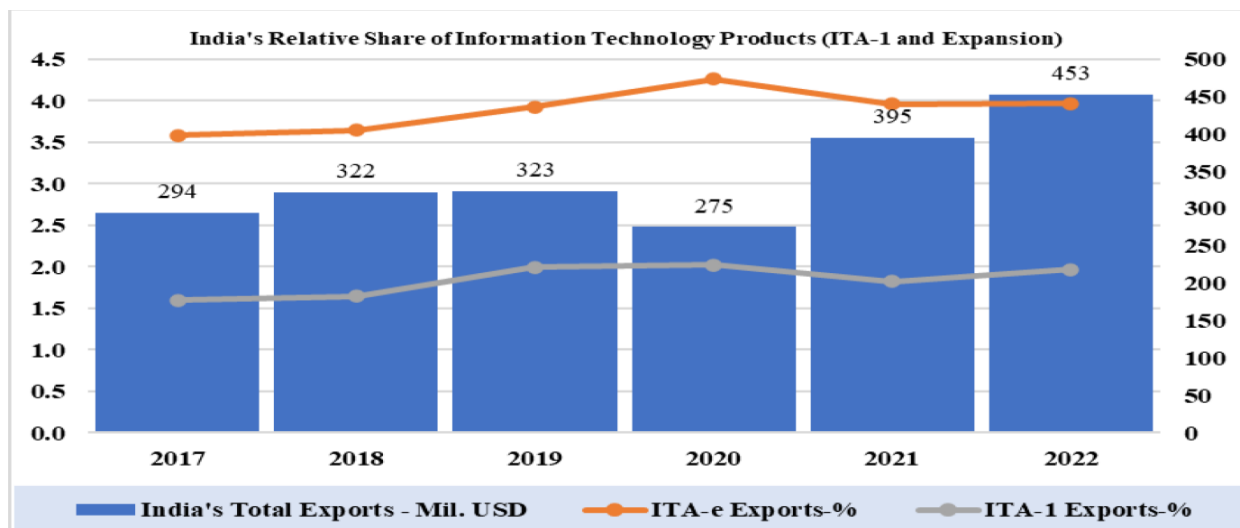
Figure 5: Average MFN tariffs of India on ITA products and count of HS 6-digit tariff lines



Source: Prof. Murali Kallummal's compilation

Spelling out India's performance in accordance with the ITA-1, substantial reduction in the tariff lines to zero by 2005 was achieved, except for a few cases where India failed to achieve the same under the stipulated time period as per as the commitments under ITA-1. All in all, sizable reduction in the tariffs was noticed in India's perspective. India's share of ITA-1 & ITA-E products in its overall exports can be seen as below:

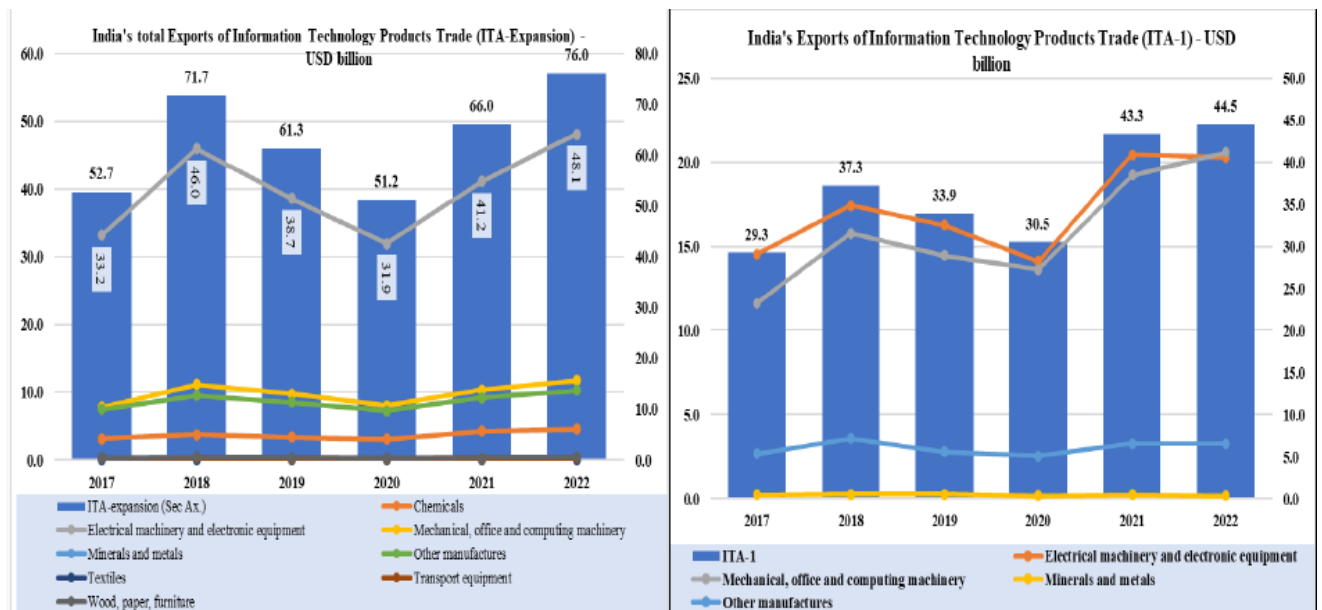
Figure 6: India's Relative Share of ITA- 1 and E Products



Source: Prof. Murali Kallummal's compilation

India's decision to not join the ITA-E can be interpreted from the figure below in light of its export growth. It surged from USD 51 billion (2020) to USD 66 billion (2021) to further USD 76 billion in 2022. On the other hand, the standalone export figures of ITA-1 have stalled at almost USD 44 billion in 2021- 22.

Figure 7: India's export profile of ITA products



Source: Prof. Murali Kallummals's compilation

Impact of Reduction of Tariffs under ITA-1

The trade-offs involved for any country in signing ITA or any such trade liberalization agreement usually involves the following factors:

- Comparative advantage/ competitiveness in the said categories of product
- Need to protect domestic manufacturers
- Advantages of cheap imports for domestic users
- Need for revenue earned from import duties
- Higher tax revenue due to increased production of goods & services

The advantages of ITA for catalyzing growth in developing countries take the usual arguments of advantages of trade liberalization for the developing world, viz.:

- Increased competitiveness of domestic ICT hardware manufacturing industry in face of competition
- Lowered prices of ICT products leading to increased usage of ICT in economy leading to increased digitalization and higher productivity of overall industry
- Increased exports of IT products and services
- Greater participation in global value chains (GVCs)

However, based on empirical studies, signing of ITA-1 has been adverse for many developing countries, perhaps due to the low level of competitiveness of domestic IT manufacturing ecosystem in the countries. Studies have reported a fall in competitiveness of domestic IT industry, adverse effects on domestic production of IT products including related inputs and raw materials and the increased tax revenue unable to make up for loss in tariff revenues which would have yielded from higher imports of IT products. Multiple studies indicate that due to nascent IT manufacturing ecosystem at the time, many developing countries, including India saw increased India's dependence on imports of ITA products, at the same time had very limited market access in developed and other developing countries due to inherently low competitiveness, together leading to a decline in local IT manufacturing resulting in an adverse impact on employment generation (Kallummal, 2012)²¹.

Studies show that except for China & Taiwan, no other countries were able to increase their share of IT manufacturing trade. On a more macro-economic scale, the broadly accepted hypotheses (Cardona et al., 2013)²² that a 10% increase in ICT investment will lead to a 0.5-0.6% increase in GDP growth is also contentious, and largely unproven for developing and emerging countries. The results with respect to impact of ICT investment on GDP growth will depend on the absorptive capacity of a country which depends on the appropriate level of human capital or other complementary factors such as

²¹ Kallummal, M. (2012). Process of trade liberalization under the Information Technology Agreement (ITA): The Indian experience (Working Paper). New Delhi: Centre for WTO Studies, IIFT

²² M. Cardona, T. Kretschmer, and T. Strobel, "ICT and Productivity: Conclusions From the Empirical Literature," Information Economics and Policy 25, (2013): 109–125.

appropriate infrastructure, R&D expenditures, etc. This also puts a question mark on the claim that increased GDP growth will enable these countries to recover the lost tariff revenues in a period of 10 years. Developed countries can recover the lost tariff revenues through imposition of direct and indirect taxes like income tax, VAT, sales tax etc., but in developing countries the presence of a large informal sector, which is outside the tax net, makes it extremely difficult to generate additional tax revenues(Banga, 2020)²³

To add to this is the fact that according to UNCTAD (2015) only about a quarter of the ITA 1 and ITA 2 product codes are also defined as ICT goods, which indicates that ITA-1/E go beyond the conventional definition of ICT in terms of the goods they cover(Banga, 2020)²⁴.

Signing of ITA with compulsory zero tariffs on many finished IT products such as mobile phones also take away the selectiveness a developing country can exercise such as reducing custom duties only on the raw materials/ inputs/ intermediate products which are necessary for domestic industry to produce the finished ICT product more efficiently.

Impact of Transposition

As discussed, the product category of the ITA largely correlates with the Multilateral Trade Negotiations (MTN) categories. The Harmonized System is usually a subject of amendment every four to six years. Now, the HS codes used by the WTO members play a pivotal role in their schedules of concession. Such an amendment is challenging to the WTO and its members as members need to periodically update their already established schedules at par to the latest nomenclature. The product codes and/or the descriptions get transposed in terms of the latest HS so as to retain the concessions or maintain the product coverage. This entire process is esoteric. The following tables show the impact of such transposition.

²³ Banga, R. (2020). Implications of Signing Information Technology Agreement (ITA-1) and Expansion of ITA (ITA-2) Working Paper No. CWS/WP/200/57, Centre For WTO Studies, Delhi.

²⁴ Banga, R. (2020). Implications of Signing Information Technology Agreement (ITA-1) and Expansion of ITA (ITA-2) Working Paper No. CWS/WP/200/57, Centre For WTO Studies, Delhi.

Table 2: Impact of transposition using ITA products of MTN groups

Information Technology Agreements (ITA-I and Exp.)	HS 1992	HS 1996	HS 2002	HS 2007	HS 2012	HS 2017	HS 2022
Chemicals	20	20	20	20	20	19	19
Electrical machinery and electronic equipment	146	176	169	179	176	176	171
Mechanical, office and computing machinery	77	95	94	94	94	91	89
Minerals and metals	11	11	11	11	11	11	11
Other manufactures	104	115	115	118	114	114	108
Textiles	1	1	1	1	1	1	1
Transport equipment	1	2	2	2	2	2	1
Wood, paper, furniture	4	4	4	4	4	4	4
ITA-I & Expansion	364	424	416	429	422	418	404

Source: Prof. Murali Kallummal's compilation

HS transposition essentially involves updating or changing the classification of products within the HS nomenclature. When transposing the HS, the overall product coverage remains unaltered, ensuring that all the traded products are accounted for. However, some implicit structural changes, like reorganizing subheadings, may occur. If the relationship between former and newer subheadings is not properly stated, then in that case anomalies may arise, therefore leading to challenges in interpreting the changes and implementing them effectively (Yu, 2008)²⁵. Transposition of HS codes also increases the likelihood of incongruous classification of products, potentially leading to broadening or shrinking of product classifications. This could likely impact the scope of commitment of products under any particular agreement, if applicable, and therefore potentially lead to disputes, delays, and additional compliance costs for traders. Authorities may fail to keep pace with the updated HS, leading to inconsistencies in classification and interpretation. The following subsection will discuss a practical impact of transposition of HS codes.

²⁵Yu, D. (2008). The Harmonized System - Amendments and Their Impact on WTO Members' Schedules. World Trade Organization, Economic Research and Statistics Division. Staff Working Paper ERSD-2008-02. (Available at: https://www.wto.org/english/res_e/reser_e/ersd200802_e.pdf)

India's Disputes: DS582, DS584 and DS588/R

Summing up, the countries who agreed upon the gradual elimination of tariff on certain tech products had to update their tariff list. India also did the same based on HS1996. Later in line with new standard called HS2002, countries were expected to revise the list again. This process of revision of HS list occurs every four to five years. A few years later, the list was again moved to HS2007. India has two options, either do it independently or seek help from WTO. India chose the latter. The WTO Secretariat undertook India's transposition and shared that draft document via email on 8th November, 2013. This was followed by a multilateral review session on 23rd April, 2015, in the Committee on Market Access, where the members accepted the draft files. The draft adjustments to the schedule were being circulated on 12th May, 2015. Upon receiving no objections within three months of circulation, the changes to the Schedule were officially certified on 12th August 2015. On 25th September, 2018, India asked for changes to its tariff list in which it wanted 15 items to be removed from the list of products with fixed tariffs. India claimed these items weren't covered by their agreements in the ITA. India saw the mistakes in the HS2007 schedule as accidental oversight regarding products not covered by the ITA at 0% tariffs.

The main legal issue was the complaint based on Article II of GATT 1994, Schedule of Commitments. The main question put forward by India for the panel to address is whether the products in question qualify for custom duty exemption due to India's voluntary consent or merely a consequence of the transposition. While India duly acknowledges its obligation under ITA, it also contends that these obligations must be distinguished from the disputed sub headings that were mistakenly certified during the transposition process. All in all, the heart of the dispute is whether or not the certain products identified by the complainants (India) were covered within the commitments under ITA.

Panel has hitherto determined that the customary international law with respect to the errors in treaty formation applies to WTO dispute resolution by quoting

Article 48 of the Vienna Convention on the Law of Treaties (1969) that Article 48 serves as a “codification” of this customary law (Vienna Convention on the Law of Treaties, 1969)²⁶. If a dispute is clutching onto Article 48, then the responsibility lies within the complainants to prove that the conditions underlined in Article 48(1) are at par. If the conditions highlighted in the Article 48 are not met in the dispute, then in that case, a moot point surfaces whether Article 48 would be a relevant legal clutch.

Now the criteria to be met for Article 48(1) are that

- India must prove that it had hypothesized that the extent of its WTO tariff commitments would not expand beyond the scope of its ITA commitment when the changes to its WTO Schedules were being certified right after the HS2007 transposition,
- This assumption was regarding a “fact or situation” as defined in Article 48(1),
- This assumption was a crucial factor in India’s consent to accept those changes in its schedule, and
- India’s hypothesis of the WTO tariff commitments’ expansion beyond the scope of its ITA undertakings was incorrect.

India’s assumption is demonstrated by the fact that India had communicated its decision of not materializing the expansion of its commitment under the ITA through the transposition under HS2007. It was found that India was already levying duties on certain ICT goods in the beginning of 2014, indicating a divergence from the ITA obligations. During this course, India also communicated its reluctance in joining the ITA Expansion, with such intension being conveyed through committee meetings and implementation of specific custom tariff measures. In response to this, the panel acknowledged the concerns regarding the expansion of the scope of the products under ITA.

²⁶Vienna Convention on the Law of Treaties. (1969). Done at Vienna on 23 May 1969. Entered into force on 27 January 1980. United Nations, Treaty Series, vol. 1155, p. 331. (Available at: https://legal.un.org/ilc/texts/instruments/english/conventions/1_1_1969.pdf)

The panel's reaction of India's assumption was that it did not consider India's imposition of duties on certain products subject to the dispute, as evidence that, India believed that the tariff commitments undertaken by WTO would not surpass the ITA commitments of India. The panel also opined that the evidence of an "assumption" would be difficult to obtain.

India claimed the mistake regarding the unintentional broadening of the commitments through the HS2007 transposition contradicted its stated intention to not to expand the commitments under the ITA. Such inaccuracies nullified its validity under the international law in the past. The panel ruled out the categorization of such an error as solely legal or a combination of facts and law. In addition to that the panel did not consider it necessary to determine whether India's error tallies as per the definition of Article 48(1).

India in its defense contended that the WTO Secretariat omitted the General Council Decision on HS2007 Transposition Procedures while transposing India's schedules. In addition, India argued that certain tariff items undergoing changes due to the transposition were not clearly flagged and that India would not have certified these contested subheadings in its 2007 schedules, otherwise. The panel, however observed that the WTO members apparently shared an understanding regarding the transposition exercise and updating the WTO tariff schedule. Both WTO members and the WTO secretariat did not view the ITA to be relevant in the transposition. Also, India's acceptance of the documents regarding the transposition process, including at the general Council and in the Committee on Market Access without any protest is a tip-off towards India's motive to stick to the multilaterally approved procedures.

Part IV: Way Forward

India's Techade Ascendancy

Rather than being a mere support hub and passive consumer of technology, India is now actively participating, contributing, pioneering and diametrically shaping the landscape of emerging technologies by leading one of the largest ecosystems in this field, as assured by the Honorable Minister for Railways, Communications, and Electronics & IT, Shri Ashwini Vaishnaw. He has also delineated the three crucial pillars- *telecom exports and advent of 6G, promotion of indigenous handset production, and semiconductor development*- for the proliferating tech landscape in India. He assured that India is going to develop and export a series of technology, including the export of “complex telecom equipment” to US and Europe by 2025 (YS, 2024)²⁷. In this ecosystem-based approach, galvanizing large scale mobile manufacturing for foreign brands has induced the establishment of complete handset ecosystem domestically, attracting ecosystem partners to India over the next five years (YS, 2024)²⁸.

The very recent global paradigm shifts due to pandemic and geopolitical tensions have initiated a propitious opportunity for India to redefine its position in the manufacturing ecosystem (ET, 2024)²⁹. Set up of internationally competitive manufacturing hubs have put forward a significant opportunity for India to drive economic growth along with employment generation in the coming years. (McKinsey Global Institute Study, 2020)³⁰. In that light, Honorable Minister Ashwini Vaishnaw also highlighted the efforts towards

²⁷Mitter, S., & Sen, S. (2024). India to lead global techade with telecom exports, semiconductors, homegrown handsets: Ashwini Vaishnaw. YourStory. (Available at: <https://yourstory.com/2024/02/india-techade-telecom-semiconductor-ashwini-vaishnaw-phonepe-indus>)

²⁸ Mitter, S., & Sen, S. (2024). India to lead global techade with telecom exports, semiconductors, homegrown handsets: Ashwini Vaishnaw. YourStory. (Available at: <https://yourstory.com/2024/02/india-techade-telecom-semiconductor-ashwini-vaishnaw-phonepe-indus>)

²⁹ ET Bureau. (2024). India will soon make equipment for semiconductor manufacturing. Economic Times. (Available at: <https://economictimes.indiatimes.com/industry/cons-products/electronics/india-will-soon-make-equipment-for-semiconductor-manufacturing/articleshow/108355840.cms?from=mdr>)

³⁰ Dhawan, R., & Sengupta, S. (2020). A new growth formula for manufacturing in India. McKinsey Global Institute Study. (Available at: <https://www.mckinsey.com/industries/industrials-and-electronics/our-insights/a-new-growth-formula-for-manufacturing-in-india>)

establishing a comprehensive semiconductor ecosystem in India, discussing the key components of the process- *Design, Fabrication (Fab), Assembly-Testing-Marking-Packaging (ATMP) and Electronic Manufacturing (MC*, 2024)³¹. Thereupon, all the ATMP and fab units, and requisite equipment for semiconductor manufacturing will be made in India (ET, 2024)³². The Government of India has recently approved a major investment project in semiconductor and electronics manufacturing, including the establishment of the country's first state-of-art semiconductor fab manufacturing facility having the potential for amplifying domestic chip manufacturing to empower the supply chain resilience, in Dholera, Gujarat. Another project to construct a plant in Jagiroad, Eastern Assam is in pipeline (Moore, 2024)³³. The Semiconductor chip fabrication factory in Dholera is poised to achieve a significant milestone in attaining the goal of fully Made-in-India electronics apparatus. This strategic move will lead to entry of global chip companies in India, cushioning local chip production and eventually increasing the entire manufacturing capacity (Kundu et al., 2024)³⁴. India will also mark a significant stride in becoming a lead electronics manufacturing hub in the next decade, driven by rising domestic demand and improved export competitiveness. Electronics manufacturing services (EMS) play a crucial role in this expansion, encircling design, manufacturing, testing, distribution, and servicing for Original Equipment Manufacturers (OEMs). To support this growth, the Indian government has introduced schemes like the Production Linked Incentive (PLI) Scheme, offering incentives of 4% to 6% on incremental sales within select sectors of the electronics industry, addressing capital cost challenges. The surge in domestic

³¹Moneycontrol News. (2024). Union Minister Ashwini Vaishnaw gives masterclass on India's semiconductor ecosystem. Moneycontrol. (Available at: <https://www.moneycontrol.com/news/trends/union-minister-ashwini-vaishnaw-gives-masterclass-on-indias-semiconductor-ecosystem-watch-12382051.html>)

³² ET Bureau. (2024). India will soon make equipment for semiconductor manufacturing. Economic Times. (Available at: <https://economictimes.indiatimes.com/industry/cons-products/electronics/india-will-soon-make-equipment-for-semiconductor-manufacturing/articleshow/108355840.cms?from=mdr>)

³³Moore, S. K. (2024). India Injects \$15 Billion Into Semiconductors. IEEE Spectrum. (Available at: <https://spectrum.ieee.org/indian-semiconductor-manufacturing>)

³⁴ Kundu, R., & Kumar, D. (2024). Restore WTO dispute settlement body: India. Mint. (Available at: <https://www.livemint.com/economy/restore-wto-dispute-settlement-body-india-11709123530923.html>)

electronics production will be driven by increased technology adoption, affordability, and sustainability efforts (Rao, 2023)³⁵.

Bearing the context, the private sector raised some ground level trade issues in re the need for a more disaggregated HS codes, or enriched tariff lines. This would make sure that all the items are classified in an orderly manner, leaving no room for ambiguity or misinterpretation. This would ensure that all the products are accurately categorized, bolstering smoother trade and reduced possibility of disputes over classification. India's tariff line schedules could be juxtaposed with that of the US and the UK. The National Tariff Line of the USA is usually 10 digits (International Trade Administration)³⁶ and USA also has expert committees to discuss the matters related to the tariff lines (United States International Trade Commission)³⁷. Similarly, the UK follows a 10-digit code for imports and 8-digit code for exports. It was suggested that India could also think on these lines to derive the tariff lines beyond the 6-digit HS codes. Another point was on the "SCOMET List", acronym for Special Chemicals, Organisms, Materials, Equipment and Technologies and the SCOMET list contains the goods falling in the aforementioned category having a dual use nature. Dual use signifies the usage by civilians as well as military application. The aforementioned goods may fall under the SCOMET regulations. The query that is being surfaced by the audience pertains to the assignment of the HS codes corresponding to such items. The HS codes assigned is in no way categorized on the basis of the usage of such items. One example of such good that came up in the discussion is router. Goods possessing dual usage often face difficulties in getting an end-use certificate which ultimately troubles the exporters. Hence, an HS code disaggregation could address such issues.

³⁵Rao, S. (2023). Why India's electronics manufacturing services (EMS) sector is growing. EY. (Available at: https://www.ey.com/en_in/advanced-manufacturing/why-india-s-electronics-manufacturing-services-sector-is-growing)

³⁶ International Trade Administration, U.S. Department of Commerce. (n.d.). Harmonized System (HS) Codes. (Available at: <https://www.trade.gov/harmonized-system-hs-codes>)

³⁷ United States International Trade Commission. (n.d.). Summary of Reports. (Available at: https://www.usitc.gov/research_and_analysis.htm)

Options Available to India

Considering the current geopolitical and trade landscape, India can explore a wide range of options that can influence the ICT and related sector along with presenting a nuanced decision-making environment. One of the options could be an ITA pull-out, through domestic manufacturing protectionism. Prima facie this could be a tempting move for the domestic industries, but this could lead to risks like political backlashes, exponential input costs for ICT service exports, dwindling investor confidence, disruption in multilateral arrangements, potential loss to employment etc.

Maintaining the status quo might be one of the least threatening options in the short run. However, this could linger the existing issues like widening trade deficits, meager technology transfers, and inability to encapsulate global value chains in the long run. On the other side, fully indulging into ITA could improve technology transfers, enhance investor confidence, but may face resistance due to potential injury to the domestic manufacturing and political considerations.

Signing ITA-E could offer benefits akin to fully embracing ITA-1, like impetus to the emerging ICT manufacturing sectors, greater technology transfer, creation of more backward and forward linkages, but may simultaneously lead to revenue loss and magnified dominance of foreign players in the domestic markets. Additionally, inclusion of non-ICT products in ITA-E harbors flair to impact industries beyond the ICT sector.

Another option that India definitely can look into is signing free trade agreements with notable nations that can provide incremental benefits along with toning down the adverse effects of plurilateral agreements like ITA-1. However, this demands intensive administrative efforts, robust negotiation capabilities and coordination among government agencies, and poses challenges like potential backlashes on backing out of the agreements. Hence, India has to contemplate on these lines, considering the potential cause and effect and the

complexity of the situation, and minimizing the negative impact from the trade-offs between short term gains and long-term consequences.

India and the Restoration of the WTO Appellate Body

Another important development is the reiteration of India's call for the restoration of the WTO Appellate Body, which has been nonfunctional since December 2019, during the 13th Ministerial Conference (MC13) in Abu Dhabi. India stressed on the urgency to address this issue as a top priority for any reform process within the WTO (Kundu et al., 2024)³⁸. Additionally, India called for the formalization of the ongoing informal discussions on dispute settlement and proposed a three-point action plan to rectify the deficiencies in the DSB. The action plan talks about transitional discussions to WTO formal bodies, ensuring effective multilateralization of the process, and prioritizing the restoration of the Appellate Body, inter alia (Nandi, 2024)³⁹.

If the Appellate Body reconvenes at the earliest, then there is a possibility that the disputes DS582, 584, 588 will resume its adjudication process. Reconvening the Appellate Body will induce the groundwork for India to adopt necessary action regarding the commitments under ITA; hence, the following course of actions is proposed:

- **Utilizing Non- Tariff Measures (NTMs):** India's progress in the electronics manufacturing sector hinges on adeptly navigating the global trade regulations. As such, delving deeper into leveraging WTO compliant NTMs becomes imperative to support the nascent manufacturing ecosystem. The potential resurgence of the disputes surrounding tariff dualities, stemming from items excluded in the initial ITA, brings out the need for proactive measures, especially if the Appellate Body of the WTO reconvenes, requiring India to address any challenges by effectively utilizing NTMs.

³⁸Kundu, R., & Kumar, D. (2024). Restore WTO dispute settlement body: India. Mint. (Available at: <https://www.livemint.com/economy/restore-wto-dispute-settlement-body-india-11709123530923.html>)

³⁹ Nandi, S. (2024). India pushes for restoration of WTO appellate body as 'top-most priority'. Business Standard. (Available at: https://www.business-standard.com/india-news/india-pushes-for-restoration-of-wto-appellate-body-as-top-most-priority-124022800901_1.html)

- **Heeding ITA-E:** The decision of whether or not to sign ITA-E requires a detailed impact study. A committee including industry associates, think tanks, academicians, and relevant ministry representatives should take up the study on the implications of ITA-E and devise a strategic plan for phased accession to the same.
- **Pioneering in Emerging Areas:** India has actively identified the emerging areas of ESDM landscape and ICT manufacturing. The set up of semiconductor fab and ATMP units have been vigorously pursued. This marks a leap forward in fully realizing India's manufacturing capabilities. This can be further strengthened by accelerated collaboration with global leaders; deeper collaboration between government, industry stakeholders, and research institutions; rigorous research initiatives; more focus on enhanced operational efficiency and scalability to meet the growing demands etc.
- **Incremental FTAs:** Accentuating the exploration of incremental FTAs with notable nations in the global value chain would broaden India's trade base, therefore attracting corporate under "China +1" strategy. This would be a litmus test for leveraging India's geolocation and global image per se.
- **Reforms in Business:** Reforms addressing high cost induced by taxation, ease of doing business, power costs, sub-par infrastructure are the need of the hour. These issues could be linked with the PLI and customized as per industry segments.
- **Streamlining HS Codes Disaggregation:** Moving forward, enhanced HS code disaggregation akin to the models of US and UK can ensure proper classification of products and avoid issues related to transposition in future. Furthermore, addressing complexities related to dual-use goods, such as those encountered under the SCOMET list, is crucial for streamlining export processes and ensuring compliance under regulatory requirements.

References

- Banga, R. (2018). Is India Digitally Prepared for International Trade? Discussion Paper, RIS-DP # 235.
- Banga, R. (2020). Implications of Signing Information Technology Agreement (ITA-1) and Expansion of ITA (ITA-2) Working Paper No. CWS/WP/200/57, Centre for WTO Studies, Delhi.
- Barnor, C., Adu-Twumwaa, D., & Osei, P. H. (2015). The Role and Functions of the International Trade Organization (ITO) and the World Trade Organization (WTO): The Major Differences and Similarities. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 24(6), 92-101.
- Bjork, C. (n.d.). From GATT to the WTO: An Overview. In Georgetown Law Library, *International Trade Law Research Guide*. (Available at: <https://guides.ll.georgetown.edu/c.php?g=363556&p=4108235>)
- Britannica, T. Editors of Encyclopaedia (2024). General Agreement on Tariffs and Trade. *Encyclopedia Britannica*. (Available at <https://www.britannica.com/topic/General-Agreement-on-Tariffs-and-Trade>).
- Cardona, M., Kretschmer, T., & Strobel, T. (2013). ICT and Productivity: Conclusions from the Empirical Literature. *Information Economics and Policy*, 25, 109–125.
- Down To Earth. (2015). US wins poultry case against India at WTO. (Available at: <https://www.downtoearth.org.in/news/us-wins-poultry-case-against-india-at-wto-50081>)
- Dhawan, R., & Sengupta, S. (2020). A new growth formula for manufacturing in India. McKinsey Global Institute Study. (Available at: <https://www.mckinsey.com/industries/industrials-and-electronics/our-insights/a-new-growth-formula-for-manufacturing-in-india>)

- Eravwoke, K., & Imide, I. (2013). International Trade as an Engine of Growth in Developing Countries: A Case Study of Nigeria. *African Research Review*, 7(3). doi:10.4314/afrev.v7i3.4.
- ET Bureau. (2024). India will soon make equipment for semiconductor manufacturing. *Economic Times*. (Available at: <https://economictimes.indiatimes.com/industry/cons-products/electronics/india-will-soon-make-equipment-for-semiconductor-manufacturing/articleshow/108355840.cms?from=mdr>)
- General Agreement on Tariffs and Trade. (1986, July). Text of the General Agreement. Geneva. (Available at https://www.wto.org/english/docs_e/legal_e/gatt47.pdf).
- Hudec, R. E. (1998). GATT/WTO Constraints on National Regulation: Requiem for an Aim and Effects Test, 32 INT'L L. 619.
- Joseph, K. J. (2013). Information Technology Agreement of WTO: Call for a Revisit, Working Paper, Ministry of Commerce Chair, Centre for Development Studies.
- Kallummal, M. (2012). Process of trade liberalization under the Information Technology Agreement (ITA): The Indian experience (Working Paper). New Delhi: Centre for WTO Studies, IIFT.
- Kiriyama, N. (2011). Trade in Information and Communications Technology and its Contribution to Trade and Innovation. OECD Trade Policy Papers, No. 115, OECD Publishing, Paris. <http://dx.doi.org/10.1787/5kg9m8cqq4wj-en>.
- Kundu, R., & Kumar, D. (2024). Restore WTO dispute settlement body: India. *Mint*. (Available at: <https://www.livemint.com/economy/restore-wto-dispute-settlement-body-india-11709123530923.html>)
- McRae, D. M. (2021). General Agreement on Tariffs and Trade. United Nations Audiovisual Library of International Law. (Available at https://legal.un.org/avl/pdf/ha/gatt/gatt_e.pdf).

Ministry of Economy, Trade and Industry. (n.d.). Chapter 4: Tariff. METI. (Available at <https://www.meti.go.jp/english/report/downloadfiles/gCT9904e.pdf>).

Ministry of Economy, Trade and Industry. (n.d.). Chapter 16: Dispute Settlement Procedures Under WTO. METI. (Available at: https://www.meti.go.jp/english/report/downloadfiles/2012WTO/02_16.pdf)

Mitter, S., & Sen, S. (2024). India to lead global techade with telecom exports, semiconductors, homegrown handsets: Ashwini Vaishnaw. YourStory. (Available at: <https://yourstory.com/2024/02/india-techade-telecom-semiconductor-ashwini-vaishnaw-phonepe-indus>)

Moneycontrol News. (2024). Union Minister Ashwini Vaishnaw gives masterclass on India's semiconductor ecosystem. Moneycontrol. (Available at: <https://www.moneycontrol.com/news/trends/union-minister-ashwini-vaishnaw-gives-masterclass-on-indias-semiconductor-ecosystem-watch-12382051.html>)

Moore, S. K. (2024). India Injects \$15 Billion Into Semiconductors. IEEE Spectrum. (Available at: <https://spectrum.ieee.org/indian-semiconductor-manufacturing>)

Nandi, S. (2024). India pushes for restoration of WTO appellate body as 'top-most priority'. Business Standard. (Available at: https://www.business-standard.com/india-news/india-pushes-for-restoration-of-wto-appellate-body-as-top-most-priority-124022800901_1.html)

Rao, S. (2023). Why India's electronics manufacturing services (EMS) sector is growing. EY. (Available at: https://www.ey.com/en_in/advanced-manufacturing/why-india-s-electronics-manufacturing-services-sector-is-growing)

Robert E. Hudec, GATT/WTO Constraints on National Regulation: Requiem for an Aim and Effects Test, 32 INT'L L. 619 (1998).

- Sawhney, D. (2024). How India can march towards global manufacturing leadership. ETAuto. (Available at: <https://auto.economictimes.indiatimes.com/news/industry/how-india-can-march-towards-global-manufacturing-leadership/107459643>)
- Sekar, S., & Kandavel, D. (2009). Patenting of Living Organisms and Natural Products. *Encyclopedia of Microbiology*, 35–51. Academic Press. doi:10.1016/b978-012373944-5.00298-4.
- Surak, J. G. (2010). Harmonization of International Standards. *Ensuring Global Food Safety*, 339–351. Academic Press. doi:10.1016/b978-0-12-374845-4.00020-5.
- UNCTAD. (2015). Trade in ICT Goods and the 2015 Expansion of the WTO Information Technology Agreement. (Available at: https://unctad.org/system/files/official-document/tn_unctad_ict4d05_en.pdf)
- United Nations. (2005). Vienna Convention on the Law of Treaties, 1969. United Nations, Treaty Series, vol. 1155, p. 33 (Available at: https://legal.un.org/ilc/texts/instruments/english/conventions/1_1_1969.pdf).
- World Trade Organization. (1998). Press Brief: Fiftieth Anniversary of the Multilateral Trading System. (Available at https://www.wto.org/english/thewto_e/minist_e/min96_e/chrono.htm).
- World Trade Organization Information and External Relations Division. (2015). *Understanding the WTO*. WTO Publications. 5th ed.
- WTO. (n.d.). Agreement on Technical Barriers to Trade. pp- 117-137. (Available at: https://www.wto.org/english/docs_e/legal_e/17-tbt.pdf)
- WTO. (2003). Dispute Settlement System Training Module. (Available at: https://www.wto.org/english/tratop_e/dispu_e/disp_settlement_cbt_e/intro1_e.htm).

WTO. (n.d.). Information Technology Agreement- An Explanation. (Available at: https://www.wto.org/english/tratop_e/inftec_e/itaintro_e.htm).

WTO. The WTO Agreements Series: Agriculture (3rd ed.).

Yu, D. (2008). The Harmonized System - Amendments and Their Impact on WTO Members' Schedules. World Trade Organization, Economic Research and Statistics Division. Staff Working Paper ERSD-2008-02. (Available at: https://www.wto.org/english/res_e/reser_e/ersd200802_e.pdf)