

Chapter 5

Non-tariff Measures in India

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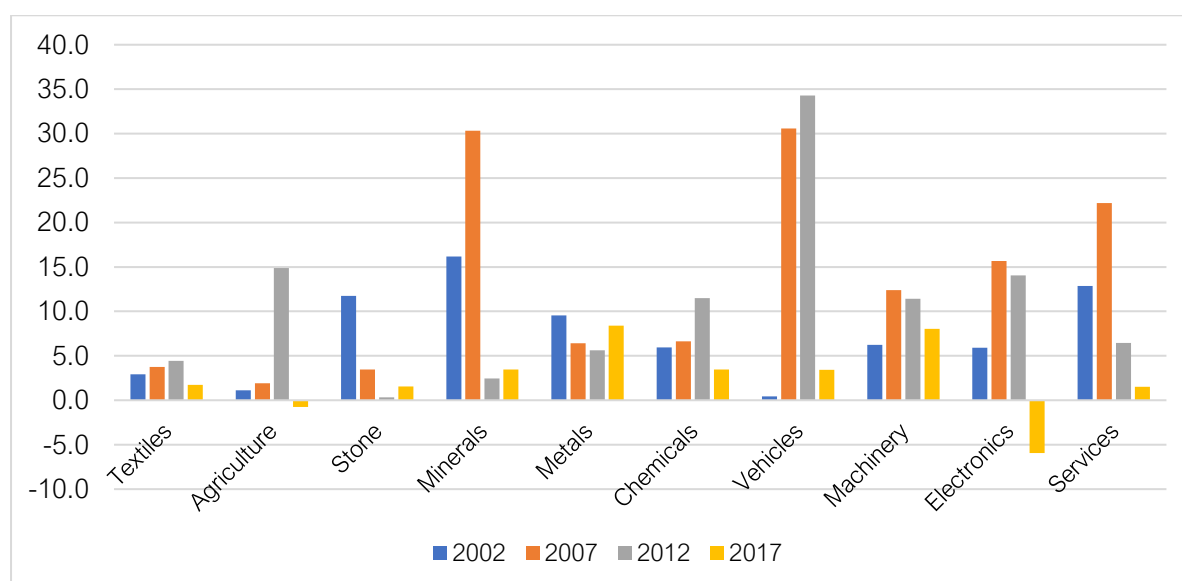
1. Introduction

India's 1991 economic reforms were followed by increased growth and international trade. Whilst the average annual growth rate was 6.1% in 1988–2005, it shot up to above 9% in 2005–2008 (Panagariya and Sundaram, 2013). Trade liberalisation measures undertaken as part of the reform package included a substantial reduction in import tariffs and non-tariff barriers across sectors. The average tariff fell from more than 80% in 1990 to 39% by 1996 and non-tariff barrier coverage was reduced from 87% in 1987 to 45% of total tariff lines in 1994 (Topalova and Khandelwal, 2011). Tariffs continued to decline steadily and the average applied tariff rate in 2017 was a mere 5.78%.

The post-liberalisation period saw the proportion of exports (imports) to gross domestic product (GDP) rise dramatically from 8.5% (8.5%) in 1991 to 24.5% (31.3%) in 2012. However, after 2012, the proportion of exports (imports) to GDP declined and was at 18.8% (22%) in 2017. The decline in trade as a proportion of GDP coincided with a decelerating economy, with the growth rate in the 5 years preceding 2018 averaging 7.5% and the growth in GDP per capita averaging 6.2% ([World Bank](#)). The decline mirrored trends in emerging economies in East Asia.

India has emerged as a dominant exporter of information and communication technology (ICT) services, the country's top export and accounting for 27% of exports in 2017. Other services exports included tourism (6%) and transport (4%). Prominent goods exports included diamonds, gold, and jewellery, accounting for about 8%; petroleum (7%); pharmaceuticals (2%); rice (1.4%); and automobiles (1.3%). Primary imports spanned ICT (12%), travel (4%), and transport (4%) amongst services, and petroleum (13%), diamonds and gold (12%), and coal (3%) amongst goods ([The Growth Lab at Harvard University](#)).

Figure 5.1. shows that India's global share in exports grew in 2002–2017 but growth fell after 2012, in line with the decrease in the trade–GDP ratio. Growth peaked in 2002–2007 for minerals and services and in 2007–2012 for agriculture and chemicals, declining thereafter. Vehicles, machinery, and electronics saw growth take off in 2002–2007, remain steady in 2007–2012, but fall post 2012.

Figure 5.1. India's Share in World Exports: Annualised Growth in the Previous 5 Years


Source: The Growth Lab at Harvard University, <http://www.atlas.cid.harvard.edu> (Accessed 10–29 June 2020).

Whilst primary export destinations were the United States (US), United Arab Emirates (UAE), and Hong Kong in 2017, India exported significantly to Singapore (3.9% of exports) and Viet Nam (2.7%), both of which feature in India's top 10 export destinations. Shares of exports to other Southeast Asian countries in 2017 included Thailand (1.2%), Malaysia (1.9%), and Indonesia (1.3%), compared with 4.3% to China. The top three import sources were the US, UAE, and China. Indonesia is amongst India's top 10 import sources. Exports to Thailand accounted for 1.5% of the total, to Malaysia 2%, and to Indonesia 3.5%.

In the wake of the India–ASEAN Free Trade Agreement in 2009, average annual growth in total trade between India and the Association of Southeast Asian Nations (ASEAN) increased from 11% in 2007–2009 to 23% in 2010–2012 (EXIM Bank, 2018). However, recent years have seen a decrease in trade engagement. Total trade increased from US\$74 billion in 2013 to US\$97 billion in 2018, but the average annual growth rate in total trade was well below 23% in 2010–2012 (Table 5.1).

Table 5.1. India's Bilateral Trade with the Association of Southeast Asian Nations (US\$ billion)

India's trade with	2013–	2014–	2015–	2016–	2017–	2018–
ASEAN	2014	2015	2016	2017	2018	2019
Export	33.13	31.81	25.15	30.96	34.2	37.47
Growth (%)	0.38	-3.99	-20.8	23.09	10.46	9.56
Import	41.28	44.71	39.91	40.61	47.13	59.32
Growth (%)	-3.71	8.33	-10.9	0.88	16.04	25.86
Total	74.41	76.53	65.06	71.57	81.33	96.79
Growth (%)	-1.92	2.85	-14.99	10.01	13.64	19.01

ASEAN = Association of Southeast Asian Nations.

Source: Government of India, Ministry of Commerce and Industry, <https://commerce.gov.in/InnerContent.aspx?Id=74> (Accessed 10 June 2020).

Recognising the need for deeper trade ties and economic cooperation with ASEAN to boost growth, India actively engaged in Regional Comprehensive Economic Partnership (RCEP) negotiations with ASEAN members and their partners (Australia, China, Japan, the Republic of Korea, and New Zealand) in 2012–2017 to better slot into global supply chains and aid job growth and development. The 19th round of the RCEP Trade Negotiating Committee meetings was held on 17–28 July 2017 in Hyderabad, India.

In 2019, however, India announced its decision to pull out of RCEP, citing concerns that the agreement did not address the country's issues. The decision was consistent with other protection measures put in place in the 3 years before 2020, including rising import tariffs and the 'Make in India' campaign, which emphasised developing domestic manufacturing capacity. Whilst some of the measures were in retaliation to tariffs levied by the US on India's imports, the general tone of trade policy in recent years has been one of import substitution, a reversal from the spirit of the 1991 economic reforms.

2. Non-tariff Measures in India

Whilst import tariffs are one form of trade protection, non-tariff barriers aim to restrict trade by imposing trade costs on firms. Non-tariff measures (NTMs) can be harder to measure than tariffs, given their variety and complexity, especially in India, which is an institutionally complex environment. India has 17 ministries and institutions – for agriculture and farmers' welfare; chemicals and fertilisers; environment, forests, and climate change; home affairs; petroleum and natural gas; power; ayurveda, yoga and naturopathy, unani, siddha, and homeopathy (ayush); health and family welfare; commerce and industry; consumer affairs, food, and public distribution; finance; textiles; fisheries, animal husbandry, and dairying; steel; atomic energy; disaster management; and standards – from which the study collected, classified, and studied NTMs.

The value of regulatory mapping is equivalent to the value attached to transparency and information dissemination. The first step in such an analysis is to identify the entire set of enforceable regulations with respect to all the ministries and institutions. India lacks a single-window repository for all its laws, orders, rules, regulations, acts, and so on. The collection of

NTM data provides a centralised, coherent mapping of regulations that affect trade, as the regulations, laws, orders, and acts included in this report are those issued at the national (Union government) level. The study is the first such exercise and offers valuable information for exporting and importing organisations and for government officials in charge of developing regulations and designing trade policies.

3. Legal Framework

India has a complex legal framework. The government is quasi-federal, and the Constitution divides powers between the Union and state governments. The Seventh Schedule of the Constitution lists the subjects on which the Union and state governments may make regulations or laws. It provides for the sharing of legislative powers on the subjects listed in the Concurrent List of the Seventh Schedule, with residuary powers belonging to the Union government. It is important to understand the legislative domains of each government, as well as the areas or sectors where they do or may overlap. A state or group of states may have regulations containing NTMs that are inapplicable in other states or even nationally. But the Union government may pass a regulation containing NTMs, leaving implementation to the discretion of state governments. Given that the implementation of some regulations is not uniform, a single-window repository is not feasible.

Most laws and regulations, however, are tabled, discussed, and passed by the Union government, especially those that are nationally relevant, such as laws related to the environment, narcotics, and tax systems. The technical and detailed aspects of the implementation of laws are usually relegated to the ministries. State governments largely consider Union laws as the standard and include changes to fit local and regional considerations.

India applies a number of NTMs in its laws, rules, orders, regulations, and acts. The NTMs are spread across several types of legal documents issued by government institutions and agencies. Most can be accessed online from the ministries' official websites.

Table 5.2 shows that there is a total of 479 regulations containing 4,618 NTMs from the 17 ministries and institutions covered by the study and reviewed. Except for one regulation issued by the Ministry of Home Affairs, all the regulations, rules, and acts are in English or in both English and Hindi. Most of the coded NTMs were found in rules and regulations, with some found in acts.

Table 5.2. Non-tariff Measures in India

	Comprehensiveness	Total
1	Total number of NTM-related regulations	479
2	Total number of NTMs reported to the WTO	
3	Total number of coded NTMs	4,618
4	Total number of affected products (national tariff lines)	11,483
5	Total number of issuing institutions	38 agencies (17 at the ministry level)

WTO = World Trade Organization.

Source: Authors, based on United Nations Conference on Trade and Development, Trade Analysis Information System. <https://trainsonline.unctad.org/home>

4. Approach to Ensure Legal Comprehensiveness of NTMs in India

To collect and classify NTMs and ensure legal comprehensiveness and clarity on NTM-related laws, a collective, comprehensive, accurate, updated, and accessible database of the laws must be readily available. This requirement is especially relevant in India, where some laws are more than 100 years old. They have been amended over the decades but no database records all the changes on a single platform. Whilst most of the laws are available in print and/or digitally, an easily accessed online database is preferable. The database will be processed by the United Nations Conference on Trade and Development together with other countries' databases and made available online via a link to legal texts on a single public site.

The data used for this NTM collection and classification exercise are publicly available on the independent websites of the identified ministries and their departments and agencies. The websites list laws, orders, rules, legislations, and regulations, and all those containing NTMs are coded. When an overlap occurs because a cross-sectoral law is commonly implemented by more than one agency of a ministry or different ministries, the regulation is coded only once.

5. NTMs Issuing Institutions

Seventeen regulatory agencies are responsible for issuing and enforcing NTM-related regulations (Table 5.3). The ministries of agriculture and farmers' welfare and of health and family welfare are the top two, together issuing more than 60% of measures. The two ministries predominantly issue sanitary and phytosanitary (SPS) measures (type A), which account for half (50.04%) of the most frequently applied NTMs. The Bureau of Indian Standards is responsible for providing safe and reliable quality goods and minimising health hazards through standardisation, certification, and testing. The bureau is under the Ministry of Consumer Affairs, Food and Public Distribution and has issued more than 10% of all measures.

Table 5.3. Non-tariff Measures, by Issuing Institution, in India

No.	Issuing Institution	NTMs (number)	NTMs (% of total)
1	Ministry of Agriculture and Farmers' Welfare	1,254	27.15
2	Ministry of Chemicals and Fertilizers	35	0.75
3	Ministry of Environment, Forests and Climate Change	132	2.85
4	Ministry of Home Affairs	42	0.90
5	Ministry of Petroleum and Natural Gas	64	1.38
6	Ministry of Power	40	0.86
7	Ministry of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy	12	0.25
8	Ministry of Health and Family Welfare	1,686	36.50
9	Ministry of Commerce and Industry	565	12.23
10	Ministry of Consumer Affairs, Food and Public Distribution	134	2.90
11	Ministry of Finance	56	1.21
12	Ministry of Textiles	35	0.75
13	Ministry of Fisheries, Animal Husbandry and Dairying	20	0.43

No.	Issuing Institution	NTMs (number)	NTMs (% of total)
14	Ministry of Steel	1	0.02
15	Department of Atomic Energy	18	0.38
16	National Disaster Management Authority	4	0.08
17	Bureau of Indian Standards	520	11.26
Total		4,618	100

Source: Authors, based on United Nations Conference on Trade and Development, Trade Analysis Information System. <https://trainsonline.unctad.org/home>

6. Classification of Non-tariff Measures, by Type

The most common NTMs are SPS measures, technical barriers to trade (TBTs), and export-related measures, accounting for about 96.78% of all NTM measures, with SPS measures alone accounting for about half of the total (Table 5.4). Some NTM types are not used at all in policy requirements (codes J, K, L, M, and O), while TBT measures (type B) dominate regulations across the 17 ministries. TBTs (type B) are the second most frequently applied NTMs (36.24%) but, unlike SPS measures, they were issued by all ministries and institutions included in this report. The Ministry of Health and Family Welfare had the highest number of TBT measures (36.49%), followed by the Bureau of Indian Standards (28.07%). The third most frequently applied NTMs – export-related measures (type P) – were prevalent in the regulations of the Ministry of Commerce and Industry (67.42%). The share of export-related measures of other ministries and institutions is minimal.

Table 5.4. Non-tariff Measures, by Type, Imposed in India

Code	Type (chapter)	NTMs (number)	NTMs (% of total)
A	Sanitary and phytosanitary measures	2,311	50.04
B	Technical barriers to trade	1,674	36.24
C	Pre-shipment inspection and other formalities	47	1.01
D	Contingent trade-protective measures	13	0.28
E	Non-automatic licensing, quotas, prohibitions, and quantity control measures other than for sanitary and phytosanitary measures or technical barriers to trade reasons	22	0.47
F	Price control measures, including additional taxes and charges	43	0.93
G	Finance measures	3	0.06
H	Measures affecting competition	18	0.38
I	Trade-related investment measures	1	0.02
J	Distribution restrictions	0	0
K	Restriction on post-sales services	0	0
L	Subsidies (excluding export subsidies under P7)	0	0
M	Government procurement restrictions	0	0
N	Intellectual property	1	0.02
O	Rules of origin	0	0
P	Export-related measures	485	10.50
Total coded NTMs		4,618	100

Source: Authors, based on United Nations Conference on Trade and Development, Trade Analysis Information System. <https://trainsonline.unctad.org/home>

7. Non-tariff Measure Classification, by Affected Products

The number of NTMs applied to each product group is shown in Table 5.5 and Figure 5.2.

Table 5.5. Non-tariff Measure Classification, by Affected Product Group, in India

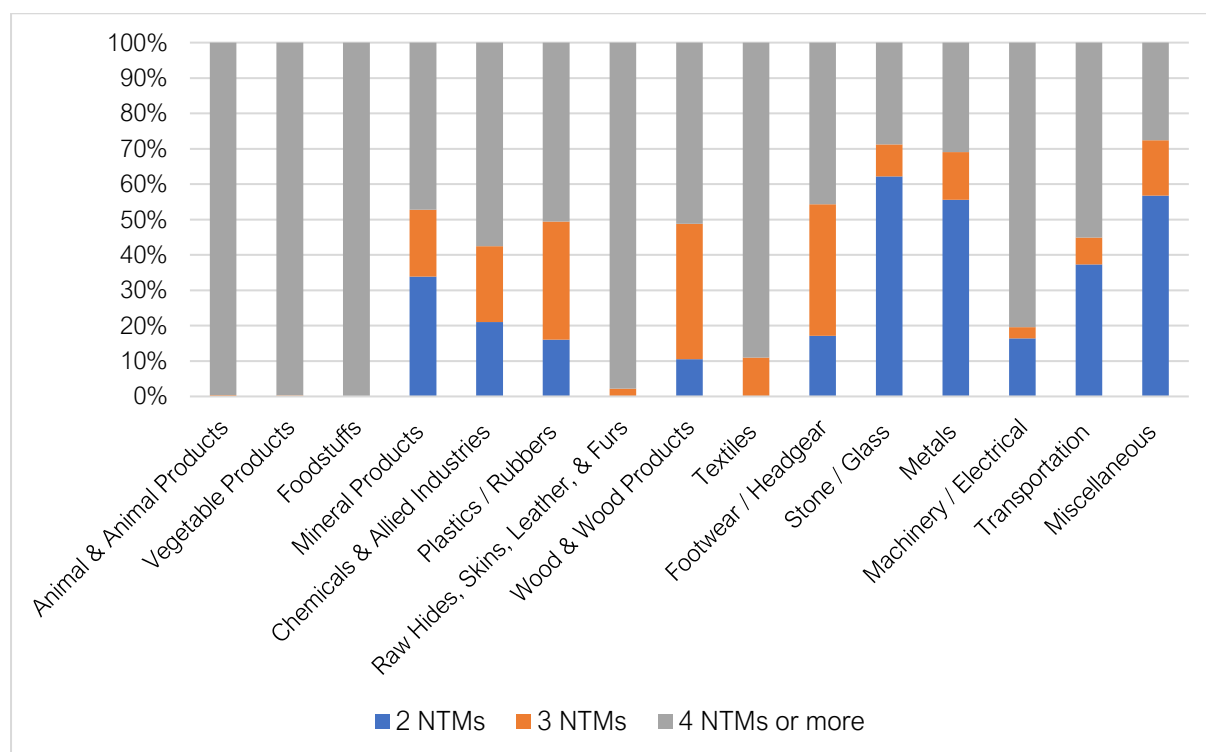
HS Code	Product Group	Two NTMs	Share of Product Group (%)	Three NTMs	Share of Product Group (%)	Four NTMs or More	Share of Product Group (%)
01–05	Animals and animal products	0	0	2	0.43	459	99.56
06–15	Vegetable products	0	0	2	0.27	720	99.72
16–24	Foodstuffs	0	0	0	0	426	100
25–27	Mineral products	109	33.85	61	18.94	152	47.20
28–38	Chemicals and allied industries	471	21.06	479	21.42	1,286	57.51
39–40	Plastics/rubbers	94	16.06	195	33.33	296	50.59
41–43	Raw hides, skins, leather, and furs	0	0	3	2.23	131	97.76
44–49	Wood and wood products	49	10.49	179	38.32	239	51.17
50–63	Textiles	0	0	206	11.01	1,664	88.98
64–67	Footwear/headgear	18	17.14	39	37.14	48	45.71
68–71	Stone/glass	220	62.14	32	9.03	102	28.81
72–83	Metals	702	55.58	170	13.46	391	30.95
84–85	Machinery/electrical	270	16.38	53	3.21	1,325	80.40
86–89	Transportation	98	37.26	20	7.60	145	55.13
90–99	Miscellaneous	356	56.77	98	15.62	173	27.59
	Total	2,387		1,539		7,557	

HS = Harmonised System.

Note: Since each product is affected by at least two NTMs (technical barriers to trade and export measures), we have calculated for two, three, and four or more NTMs instead of one, two, and three or more NTMs.

Source: Authors, based on United Nations Conference on Trade and Development, Trade Analysis Information System. <https://trainsonline.unctad.org/home>

Figure 5.2. Non-tariff Measure Classification, by Affected Product Group, in India

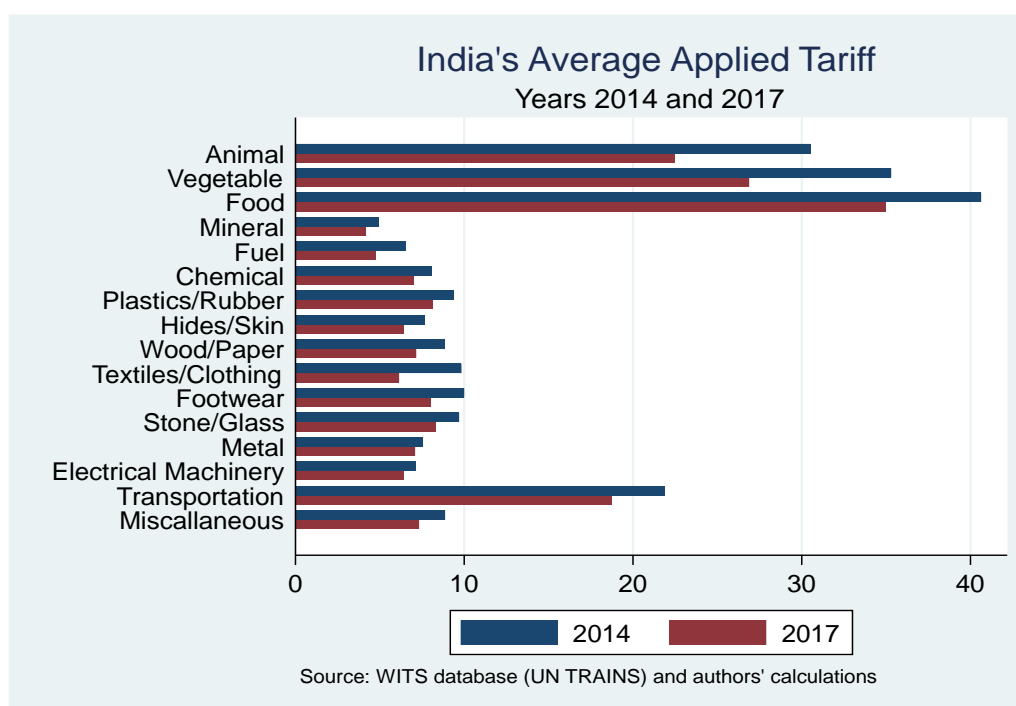


Source: Authors, based on raw data from the 2018 Economic Research Institute for ASEAN and East Asia and United Nations Conference on Trade and Development NTM database.

8. Non-tariff Measures and Import Tariffs

This section compares import NTMs with import tariffs. The analysis in previous sections reveals that NTMs are most prevalent in food, vegetable and animal products, textiles and leather, and electrical machinery. Figure 5.3 compares the average applied tariff on imports from the rest of the world across product groups. It presents a contrary story: import tariffs fell in 2014–2017 for agricultural products and for industrial sectors such as electrical machinery, transportation, and metals. It appears that a decrease in import tariffs is associated with a corresponding increase in NTMs, particularly for primary (agricultural) products and textiles.

Figure 5.3. Average Applied Tariff across Product Groups in India



Source: World Bank, WITS (<https://wits.worldbank.org/>); United Nations Conference on Trade and Development, TRAINS (<https://trainsonline.unctad.org/home>)

9. Main Findings

Our main findings are as follows:

- (i) A total of 479 regulations across 17 ministries and institutions contained NTMs. The regulations included 4,618 NTMs affecting 11,483 tariff lines based on Harmonised System (HS) codes (all products in India).
- (ii) The Ministry of Health and Family Welfare issued the highest number of NTMs (1,686) or about 36.5% of the total.
- (iii) SPS measures were the most frequently applied NTM or about 50% of total NTMs and affecting a total of 2,887 products.
- (iv) TBTs (36.24% of total NTMs) and export-related measures (10.5%), together affecting 11,483 products were the second and third most frequently applied NTMs.
- (v) The ministries of agriculture and farmers' welfare and of health and family welfare are the major issuers of NTMs, accounting for 63.6% of the total. The agriculture ministry issued 1,155 SPS measures and the health ministry 1,057. Agricultural products and pharmaceuticals are major items in the trade basket; therefore, regulations emphasise SPS (type A) and TBT measures (type B) for the two product groups to ensure quality control and standardisation.
- (vi) Of all the product groups, foodstuff (100%) is the most frequently affected by NTMs, followed by vegetable products (99.72%) and animals and animal products (99.56%). Table 5.5 shows that, overall, product groups were largely affected by four or more NTMs.

- (vii) Whilst tariffs were brought down in 2014–2017 across agricultural products and industrial product groups such as transportation and electrical machinery, there was no equivalent decrease in NTMs in these sectors.

10. Policy Recommendations

This chapter examines and records regulations (and corresponding NTMs) up to 31 December 2016 for the 17 ministries and institutions. Since HS codes version was updated from 2012 to 2017 for export and import policy, future studies should include all updates.

Whilst India made progress in reducing import tariffs across agricultural and industrial products, the same cannot be said for NTMs. They remain high for food, vegetable and animal products, textiles, and agricultural products, and for industrial products such as machinery and electrical.

Given that India has a large and young workforce, job creation and economic growth are key policy priorities. Successful economies in the region, including China, achieved these objectives by slotting into global value chains, opening to multinational investment, and encouraging exports. India has struggled in this area, as the performance of labour-intensive manufacturing has remained sluggish (Hasan, Mehta, and Sundaram, 2021). NTMs impose a cost on firms engaging in international markets. Hence, the firms' presence in sectors such as electrical machinery, where the potential for backward and forward linkages, technology, and knowledge spillover is high, can be detrimental to exploiting potential opportunities in the global value chain.

As of 2018, 66% of the population was rural and depended on agriculture. Agricultural productivity remains poor, and the sector stands to benefit substantially from lower NTMs that facilitate access to export markets and inputs from abroad. India's position as a large emerging economy implies that regional partners would gain from market access and access to India's pool of skilled workers, whilst India could exploit access to markets, inputs, technology, and capital from its trade partners in the region. Achieving this goal requires commitment to pursue integration efforts with the region, starting by streamlining NTMs.

Several considerations apply to streamlining NTMs. The quasi-federal government has a bias towards the centre, as seen by the demarcation of subjects for legislation in the Seventh Schedule of the Constitution. The Union list includes 100 subjects, the state list 61, and the concurrent list 52. The Constitution gives primacy to the Union government on concurrent list items: in case of a conflict, central law overrides state law. The Union government also possesses residuary powers.

A state or group of states may have regulations containing NTMs that are not applicable in other states or even nationally. The Union government may pass a regulation containing NTMs but may leave its implementation to the discretion of state governments.

Because regulations are not implemented uniformly across the country, the NTM regime is institutionally complex. Complexity can result in a lack of transparency, which can increase the cost of doing business for importing and exporting firms. A single-window repository can make the regime more transparent and lower the cost of compliance for firms. The current effort to compile an NTM database is a step in this direction. To make the database more robust and

comprehensive, state regulations should be included in further studies. The Union government could also consider developing its national portal for NTMs and other related studies as a single-window repository (at Union and state levels) for all concerned trade laws, regulations, orders, and so on to facilitate information access, dissemination, and transparency.

Although the NTM database is relatively comprehensive, it requires regular updates to capture the impacts on international trade, value chains, and business models. The reason is laws are often amended, as seen by the quinquennium update of foreign policy and continuous review by the ministries of commerce and industry and of finance, to ensure that India's trade practices and policy are fair, inclusive, profitable, and feasible. Therefore, this report and the gathered database can serve as the foundation for all further NTM classification, coding, and research.

A large number of regulations often make it difficult to detect potential areas for improvement. The database can allow targeted ministries and departments to study the impact of specific measures, laws, regulations, orders, and so on, and consider how to improve business models and trade practices. Continuous updates and studies such as this chapter can directly support legislative bodies and ministries in revising the database, thereby keeping it updated and official.

Finally, a comparative analysis of NTMs and tariffs reveals that whilst tariffs declined in 2014–2017, this was not true of NTMs. NTMs boost demand for domestic firms by ensuring standardisation and quality control, but an onerous NTM regime can impose compliance costs. Such costs can present significant barriers to trade for small and medium-sized enterprises that employ most of the population in emerging economies. An agenda of trade liberalisation cannot be pursued effectively if NTMs replace tariffs as measures of trade protection. A detailed analysis of NTMs and their impacts on trade via the demand and cost channels is imperative to ensure that India's trade liberalisation strategy spurs growth, creates jobs, and raises living standards. The aim of the database is to facilitate research in this area.

References

- Economic Research Institute for ASEAN and East Asia (ERIA) and United Nations Conference on Trade and Development (UNCTAD) (2016), *Non-Tariff Measures in ASEAN: February 2017*. Jakarta: ERIA; Geneva: UNCTAD.
- EXIM Bank (2018), 'Strengthening ASEAN-India Partnership: Trends and Future Prospects', *EXIM Bank Research Report*, January.
- Hasan, R., A. Mehta, and A. Sundaram (2021), 'The Effects of Labor Regulation on Firms and Exports: Evidence from Indian Apparel Manufacturing', *Journal of Comparative Economics*.
- Panagariya, A. and A. Sundaram (2013), 'External Liberalization by India and China: Recent Experience and Future Challenges', *Indian Growth and Development Review*, 6(1), pp.8–34.
- The Growth Lab at Harvard University, *The Atlas of Economic Complexity*. Available at: <http://www.atlas.cid.harvard.edu> (Accessed 10–29 June 2020).
- Topalova, P. and A. Khandelwal (2011), 'Trade Liberalization and Firm Productivity: The Case of India', *The Review of Economics and Statistics*, 93(3), pp.995–1009.
- United Nations Conference on Trade and Development (UNCTAD) (2013), *Classification of Non-Tariff Measures*, February 2012 Version. Geneva.
- UNCTAD, *Trade Analysis Information System*. Available at: <https://trainsonline.unctad.org/home>
- World Bank, *GDP Growth (Annual %) – India*. Available at: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=IN> (Accessed 10 June 2020).