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Sensitivity of India's Agri-Food Exports to the European Union: An Institutional Perspective

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SENSITIVITY OF INDIA'S AGRI-FOOD EXPORTS TO THE EUROPEAN UNION: AN INSTITUTIONAL PERSPECTIVE

C Nalin Kumar[1]

Abstract

This paper explores the sensitivity of India's agri-food[2] *exports to the European Union and draws preliminary inferences from the instances of notifications and rejections by the EU of consignments from India. The rise in the numbers of border rejections and the issues of information asymmetry give rise to concerns at the institutional level despite having mandatory certifications for specific products.*

Key words: Border rejection, India-EU trade, trade facilitation, Rapid Alert, food safety.
JEL Codes: F130, F630, Q170, Q180

Introduction

Many developing countries depend significantly on the export of agri-food products and perceive it as a sustainable long term source of income. However, of late, the physical, chemical and microbiological properties of exported products assumed greater importance subjecting them to closer scrutiny and many countries are deprived of the capacity to tackle newer challenges. This paper looks at some of these issues by taking the case of India's exports to the European Union (EU) and draws certain preliminary inferences from the instances of notifications by the EU on consignments from India.

Broadly defined, a notification implies that the said product has not met all the physical, chemical and microbiological regulations at the port of import and the Rapid Alert system sends the details to all member countries in the EU and issues a warning to the exporting country. The affected exports have to undergo complete scrutiny until many subsequent consignments are cleared in order to get the alert lifted. India is one of the few countries in the world where export demand for agricultural products competes with domestic demand of a very high order. At the same time, the sustainability of the export market sustainability involves a series of compliance measures, most of which evolved in recent years, throughout the supply chain.

This paper explores the challenges of maintaining compliance with importer specific regulations mainly due to public health and environmental concerns by taking the case of member countries of the European Union (EU). The selection of the EU is based on certain considerations. First, India has a high stake in the EU in terms of trade volume and value, including the levels of value realisations from

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[2] In this paper we deal with a limited set of products broadly under the agricultural and marine product categories. This is also in tune with the categories EU report in their notifications. These are (1) Herbs and spices, (2) Nuts and products, (3) Fruits and vegetables, (4) Eggs, meat and products and (5) Marine products.

exports, and there has been a continued interest in signing a free trade agreement to further smoothen trade relationship between the two markets. Secondly, the EU has been one of the most stringent in terms of regulations imposed on imported products (Jaffee and Henson, 2005) and also has a relatively well publicised set of regulations. India has an institutionalised set-up to deal with the certification and clearance process for certain commodities prior to export to the EU. The Export Inspection Agencies (EIAs) under the Export Inspection Council (set up by the Ministry of Commerce) is the designated entity to issue health certificates for marine products destined for the EU.

However, India has to deal with many incidents of exports being rejected at the border of the importing country. Food safety and lack of appropriate trade facilitation measures are constant hindrances preventing enhancement of gains from trade. The sanitary and food safety parametres and border clearance issues for spices and marine products exported from India to the EU constitute good examples in this context. For Indian producers and exporters, the predominance of information related to non-tariff barriers exists in the export supply chains of agricultural and marine products. The EU is generally considered to be the most stringent when it comes to the systematic use of standards and regulations on goods crossing the border. Countries and exporters, who do not conform to the EU's regulations, are dealt with through alerts and notifications. In many cases, the border checking authority subjects the cargo to additional samplings and checks, or rejects the cargo, and in extreme cases, destroys the cargo at the port of import. Thus, the EU has been in the forefront in enforcing very stringent checks on imported consignments and developing a system of informing all member countries of a possible issue through notifications and maintaining a database on the incidents of rejections and detentions of consignments with reasons. This information could help formulate ideal guidelines for exporting countries and reinforce their institutional capacities to cope with a superior regime of trading standards.

The contribution of this paper lies in providing an institutional perspective on the trade process, delineating the reasons for the notifications on Indian exports by the EU and to reflect on the magnitude of the issues based on the available information on the counts of notifications. The paper adopts an exploratory approach and analyses are based mostly on descriptive statistics such as percentage shares and compound annual growth rates (CAGR). The analyses are based on secondary data taken from different databases for the period 2001-14. The data on total exports and agricultural exports are extracted from the databases of the International Trade Centre (ITC) and the Agricultural and Processed Food Export Development Authority (APEDA) respectively. A comparative analysis of exports and border rejections has been made in order to understand the inherent issues more accurately. The trends and patterns in border rejections are analysed based on gross data across products along with indicators such as unit rejection rate and relative rejection rate. Data from the Rapid Alert has been used extensively to explore these issues in the context of Indian exports to the EU. India's exports of agricultural commodities to the EU are subject to certifications through EIAs. In the case of marine products, it is mandatory to obtain Health Certificate issued by EIA, because the EU has recognized only this agency as the certifying authority.

The paper is organized as follows: the next section provides a brief discourse on the standards and regulations in international agricultural trade. In the subsequent section, the significance of India-

EU trade relationship and specifically the growth and importance of trade in agricultural and marine products exports is discussed. Issues of compliance with regulations, notifications and border rejections of India's exports are analysed in detail across three sections and the last section comprises the conclusion.

Standards and Regulations in International Trade

Over the years the tariff rates of almost all the countries have been reduced as a result of multilateral trade negotiations as well as bilateral and regional trading arrangements. The developed countries have maintained tariffs at 2002 levels and developing countries have also substantially reduced their tariff rates (UNCTAD, 2013). Meanwhile the Non-Tariff Measures (NTMs) have been proliferating and, in many instances, the lack of transparency associated with their use poses new challenges to international trade and acts as Non-Tariff Barriers (NTBs). The Agreement on Sanitary and Phytosanitary measures (SPS) of the World Trade Organization (WTO) sets out the broad ground rules for the application of food safety, plant health and environmental measures, many of which could affect international trade in agro-food commodities rather adversely. Moreover, there are elements such as maximum permissible limits on chemical and microbiological parameters because agri-food items can act as carriers of pests and diseases.

The 'Trade Standard' is one aspect which is being widely discussed in of late because of its potential to restrict trade and lead to import refusals especially from developing countries (Anders & Westra, 2011; Jouanjean, 2012; Buzby & Regmi, 2009). In the context of international trade, the term 'standard' is defined as "a document approved by a recognised body that provides, for common and repeated use, rules, guidelines or characteristics for goods or services, or related processes and production methods. Standards are generally established by consensus in technical committees of experts; compliance is not mandatory."

'Regulation' ('technical regulations', as they appear in trade terminology), on the other hand, is defined as "a document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions with which compliance is mandated by law. In the context of the WTO, Non-Tariff Measures (NTMs) and Non -Tariff Barriers (NTBs) assume importance. Though NTMs are in compliance with WTO provisions, they can be invoked for protectionist purposes resulting in NTBs which goes beyond meeting the non-trade objective. Thus, a measure becomes a barrier if used in a way to impede trade rather than achieving the legitimate and specific objective. Testing and certification facilities and institutional capacities thus take extreme importance for developing countries.

In many cases products from developing countries are largely affected by the imposition of rigorous standards for food and feed products by developed countries which sometimes do not align with international standards. The ever-increasing stringent standards by developed countries have raised the bar for food safety and quality which is hardly attainable for most developing countries and has resulted in their exclusion from major export markets (Wilson and Otsuki, 2003). It adversely affects their ability to participate and benefit from trade (ibid). Apart from food safety there are issues related to logistics and information asymmetry and other concerns such as adulteration resulting in

rejection of imports from developing countries. These issues together disrupt the smooth functioning of the international trade system. Moreover, there are no specific international standards for some commodities that are intensively traded. Proving conformity with standards and technical regulations requires efficient testing, certification and accreditation mechanisms that conform to the requirements of not only the ones set in the SPS and Technical Barriers to Trade (TBT) Agreements but also the specific regulations of importing countries because they have to benefit from trading opportunities. This is also strongly linked to trade facilitation measures, which are actions undertaken with the objective of facilitating market access to traded goods and services in areas within the scope of a trade agreement including provisions for expediting and simplifying conformity assessment procedures, certification or accreditation of laboratories mainly through simpler and streamlined documentation and faster and efficient logistics.

Regulations would be helpful because they indirectly lead to improvement in the quality of products and the welfare of consumers. They assure consumers better quality, safety and reliability of goods and services. At the same time they act as catalysts for change by compelling producers to adopt specific international standards which results in increased competitiveness of their products worldwide. They establish a common trading language between traders, ensure public safety and environmental protection within and outside national borders (United Nations Economic Commission for Europe, 1998). They act as vehicles for development and diffusion of best practice technologies throughout the world (Andison, 1996). However standards can also become burdensome for developing countries because they are disguised trade barriers for their products. Inappropriate regulations and standards can result in high trade costs and inefficiencies leading to international repercussions (UNECE, 1998). They impede trade for developing countries either through explicit bans on the import of particular products and import refusals or through high cost of compliance with very stringent standards that reduce the competitiveness of their products or in both ways. Aquila and Caccamisi (2007) mention the increasing importance of quality and safety standards affecting competitiveness of agri-food trade after 1990s.

Though these are not new challenges because the restrictions on trade arising out of standards and regulations are close to two decades old and this paper attempts to look at the institutional dimensions and the proactive and reactive steps to maintain export markets. The EU is an important market for India, especially in the high value category where realization is high and often commands a premium. This paper considers India-EU trade because India has been negotiating a free trade agreement with the EU for a long time, and NTBs significantly figure in the list of concerns.

Indian Agricultural Exports and Regulatory Compliance: Review and Select Cases

This section has been organised into three parts. The first part deals with the trends in bilateral trade relations, mostly India's exports, between the EU and India with special focus on total, agricultural and marine exports. It is followed by the trends and patterns of the EU's notifications and border rejections for select Indian agricultural and marine products in an institutional context in the second part. A closer scrutiny of the notifications and border rejections of India's exports by the EU and the associated critical dimensions are explained in detail in the third part.

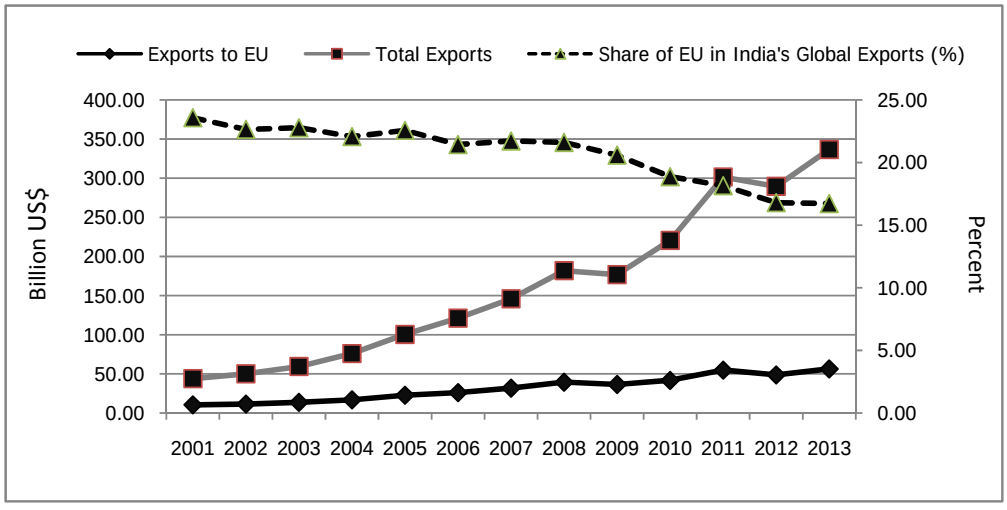
India-EU Trade, trends and patterns

India has long established trade relations with the EU. The export to EU has been one of the major components determining India's overall merchandise exports. India's total merchandise exports in 2001 stood at US$ 43.88 billion (Figure 1). Between 2001 and 2013 it grew more than seven times to reach US$336.61 billion. The growth rate of the overall merchandise trade of India during this period is 17.71 per cent which is statistically significant. In the same period India's exports to the EU rose from US$10.34 billion to US$56.28 billion (Figure 2). However this growth is slower compared to the growth in overall exports. The growth rate of exports to the EU which stood at 14.90 per cent although significant is comparatively lower than the growth of overall merchandise trade (17.71 per cent). It resulted in a decline in the share of exports to the EU in India's global exports.

In 2001, exports to the EU constituted 23.58 per cent of India's total exports. But in 2013 it came down to 16.72 per cent (Figure 1). The larger part of decline could be seen post 2008 due to the global economic meltdown and the Euro zone crisis. The effects of the global financial crisis and Euro Zone crisis are clearly reflected in the sudden drop in the values of total exports as well as the exports to the EU in 2009 and 2012. After the setback of 2009, the Indian export sector started to show resilience to the crisis and registered a positive growth in the next two years. Again in 2012, the onset of Euro Zone crises hit the Indian export sector resulting in a steep fall in exports.

Agricultural and marine exports to the EU account for around 4 per cent of India's total exports to EU and around 8 per cent of India's total agricultural and marine exports. In fact, the EU's share in India's total agricultural and marine exports gradually declined between 2001 and 2013. The same period reported increasing cases of border rejection of Indian products by the EU. In this context, we take the case of Indian spices and marine exports to the EU to pinpoint whether the trade disrupting issues pertaining to agriculture in India relate to food safety, logistics and information asymmetry or other factors and to suggest ways to improve the institutional set-up to deal with these issues.

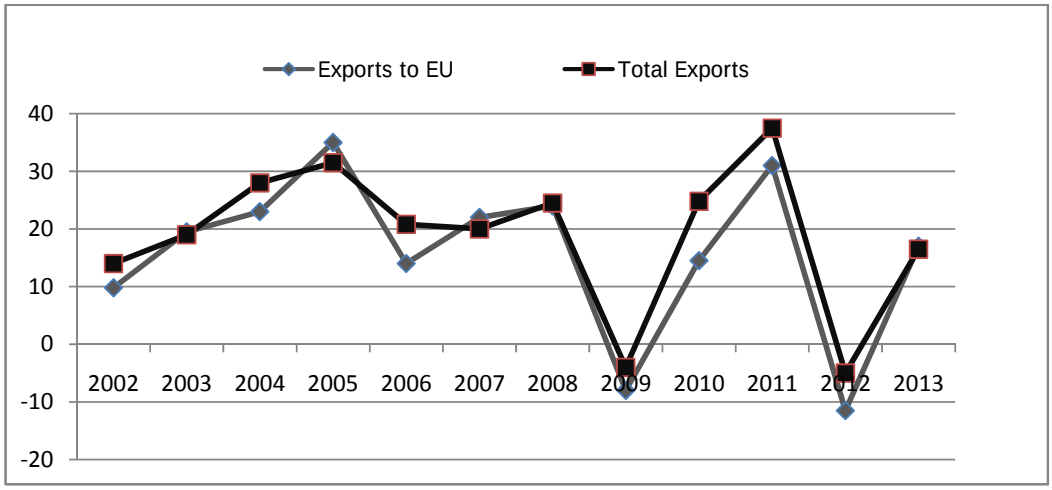
Figure 1: Trends in India's Agricultural Exports to the EU and Total Exports during 2001-13



Source: ITC Database, various years.

The growth of exports between 2001 and 2013 does not reveal a steady pattern. The annual percentage growth of total exports as well as exports to the EU shows high fluctuations throughout the period. In 2009 and 2012 there was negative growth due to reasons mentioned already. The trends in annual growth rate of exports to the EU followed the same pattern as that of total exports. In 2009 and 2012 the annual growth rate of exports to the EU were negative and steeper than those of the total exports. Reduced demand from the EU due to crises could be one of the reasons.

Figure 2: Trends in Annual Growth Rates of India's Exports to the EU and Total Merchandise Exports during 2001-13 (Growth Rates in Percentages)



Source: Calculated based on ITC Database, various years.

Table 1: Trends in Indian Exports of Top 5 Product Categories to the EU at HS 2-Digit Level during 2001-13

Year	Total EU Imports from India (Billion US$)	Share of Top 5 Product Categories in India's Total Exports to EU (%)
2001	10.34	38.37
2002	11.34	40.05
2003	13.52	37.30
2004	16.76	34.87
2005	22.65	39.33
2006	25.98	37.29
2007	31.69	38.39
2008	39.29	37.85
2009	36.39	45.52
2010	41.60	43.78
2011	54.73	44.15
2012	48.64	40.58
2013	56.28	39.73

Source: Calculated based on ITC Database, various years.

Between 2001 and 2014, India's total agricultural and marine exports as well as its agricultural and marine exports to the EU witnessed remarkable growth (Table 1). India exported products worth US$2.30 billion in 2013 to EU which was just US$ 0.49 billion in 2001. In spite of this tremendous growth it has not been proportional to the increase in India's total exports in this category.

Table 2: Trends in India's Agricultural and Marine Products Exports to the EU and the World during 2001-13

Year	India's Total Exports of Agriculture and Marine Products			India's Exports of Agriculture and Marine Products to the EU			Share of the EU in India's Total Agriculture and Marine Exports
	Value (Billion US$)	Annual Growth Rate (%)	Share in Total Merchandise Exports (%)	Value (Billion US$)	Annual Growth Rate (%)	Share in Total Merchandise Exports to the EU	
2001	3.39		7.72	0.49		4.74	14.48
2002	4.17	23.25	8.33	0.58	18.07	5.10	13.87
2003	4.48	7.37	7.55	0.69	19.29	5.11	15.41
2004	5.03	12.19	6.62	0.71	3.31	4.26	14.19
2005	5.84	16.18	5.82	0.94	31.77	4.15	16.09
2006	6.38	9.20	5.26	1.11	18.07	4.27	17.40
2007	9.06	42.01	6.21	1.33	20.20	4.21	14.73
2008	9.11	0.63	5.01	1.25	-6.44	3.18	13.69
2009	8.95	-1.85	5.06	1.12	-9.91	3.09	12.57
2010	11.71	30.94	5.31	1.41	25.27	3.39	12.02
2011	20.67	76.47	6.86	1.97	39.95	3.60	9.54
2012	25.11	21.46	8.67	2.02	2.43	4.15	8.04
2013	27.85	10.95	8.28	2.30	14.07	4.09	8.27

Source: Calculations based on data of various years from APEDA and ITC Databases.

The growth rate of exports of agriculture and marine products to the EU was lower than the growth rate of total exports from India in this category. The agricultural and marine exports of India to the EU experienced a growth rate of 12.22 per cent as against 17.30 per cent registered by the total agricultural and marine exports to the world in this period. This resembles the growth rates of total merchandise exports of India and its exports to the EU. Growth in India's agricultural and marine exports to the EU has been much slower compared to the growth of India's overall exports to this region. The annual rate of growth of agriculture and marine exports to the EU has followed more or less a similar pattern as that of total exports of these products. A lot of variation can be seen in the annual growth rates. The EU was one of the major export destinations for agriculture and marine products for India in 2001 but the share of the EU though increased in absolute value, gradually declined to 8.27 per cent in 2013 (Table 2). This trend resembles the trends in India's overall exports to the EU.

Institutional Dimensions of Trade Process, Notifications and Border Rejections of the EU

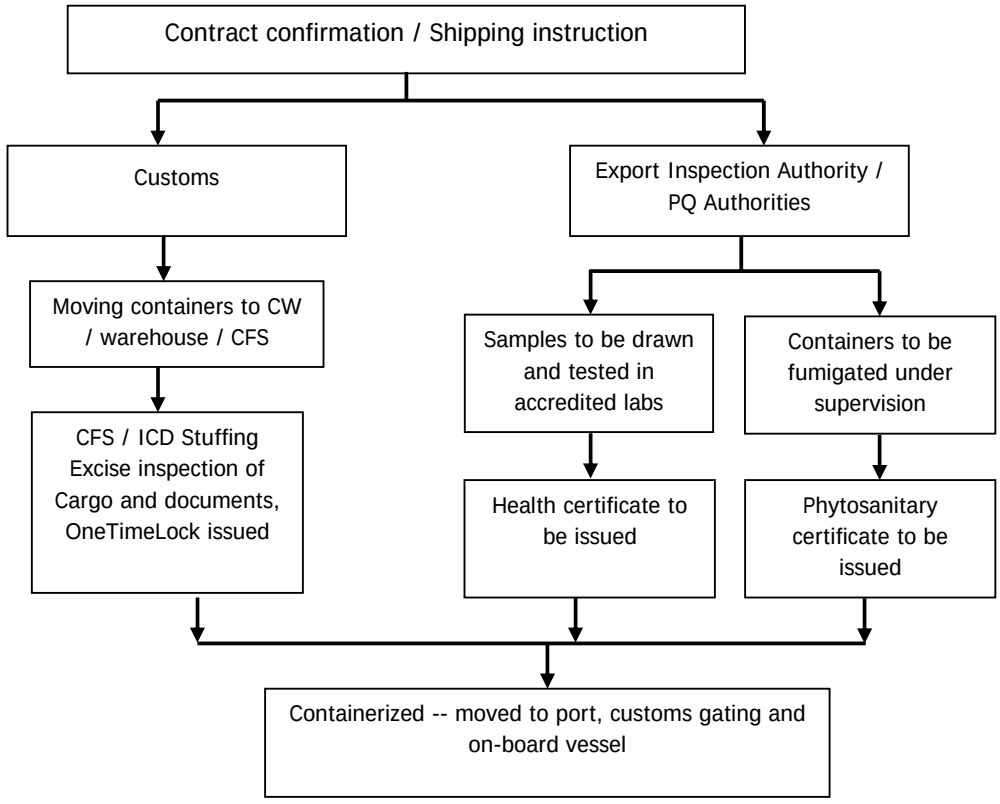
In the context of slower exports of agricultural and marine products to the EU and the rising levels of various types of regulations, it is imperative to have a deeper understanding of the institutional dimensions which guide the stakeholders involved. Different products have different requirements in terms of costs, time and reliability of logistics and trade facilitating policies are to be formulated taking into consideration the vulnerability of the commodity in the export supply chain and the specific destination. A review of some of the major issues with respect to regulation and its compliance in the context of agricultural and marine products which are generally perishable in nature is made in this section.

In the case of agricultural and marine products, over an extended period, generic quality, sanitary and food safety regulatory changes in many of the importing countries have triggered a variety of responses from the institutions in India in terms of quality assurance, testing and monitoring of the exported products. Of late, exports faced significant problems in the markets especially of the EU and the United States. The Rapid Alerts database reveals that many export products from India continue to be vulnerable due to a plethora of concerns at the destination. This aspect is dealt with more elaborately in this section by taking the instances of rejection of India's exports by the EU. The broad categories of products covered in this analysis are (1) Herbs and spices, (2) Nuts and products, (3) Fruits and vegetables, (4) Eggs and meat products and (5) Marine products. In India, these product lines come under the mandate of statutory commodity boards and export promotion authorities under the Ministry of Commerce. These products are significant export commodities but they also satisfy a huge domestic market as well. The real challenge lies in the fact that there are fewer standards or regulations governing the domestic markets when it comes to the parameters related to food safety.

The Agricultural and Processed Food Products Export Development Authority (APEDA) was established by the Government of India under the APEDA Act passed by Parliament in 1985. The APEDA is mandated with the responsibility of export promotion and development of the scheduled products (14 broad categories including fruits and vegetables, nuts and products, animal products and poultry, milk and milk products, cocoa and all types of chocolates and herbs and medicinal plants). The APEDA is also responsible for enforcing standards and regulations related to these products and helping exporters conform to the same. The Spices Board has an overview of production, development and export of all the classified spices. The Board has set up a Spices Parks in various parts of the country to promote value addition and exports through integrated facilities for small growers. The Marine Products Export Development Authority (MPEDA) acts as a co-ordinating agency with different Central and State Government establishments engaged in fishery and allied activities.

An agri-food product is exported after an evaluation of its physical, chemical and microbiological properties usually by taking a sample and sending for tests at approved laboratories and a series of checks of the documents submitted alongwith. Figure 3 below details the procedures a consignment undergoes through various regulatory bodies in India.

Figure 3: Diagrammatic Representation of Export Procedure for An Agri-product in India[3]

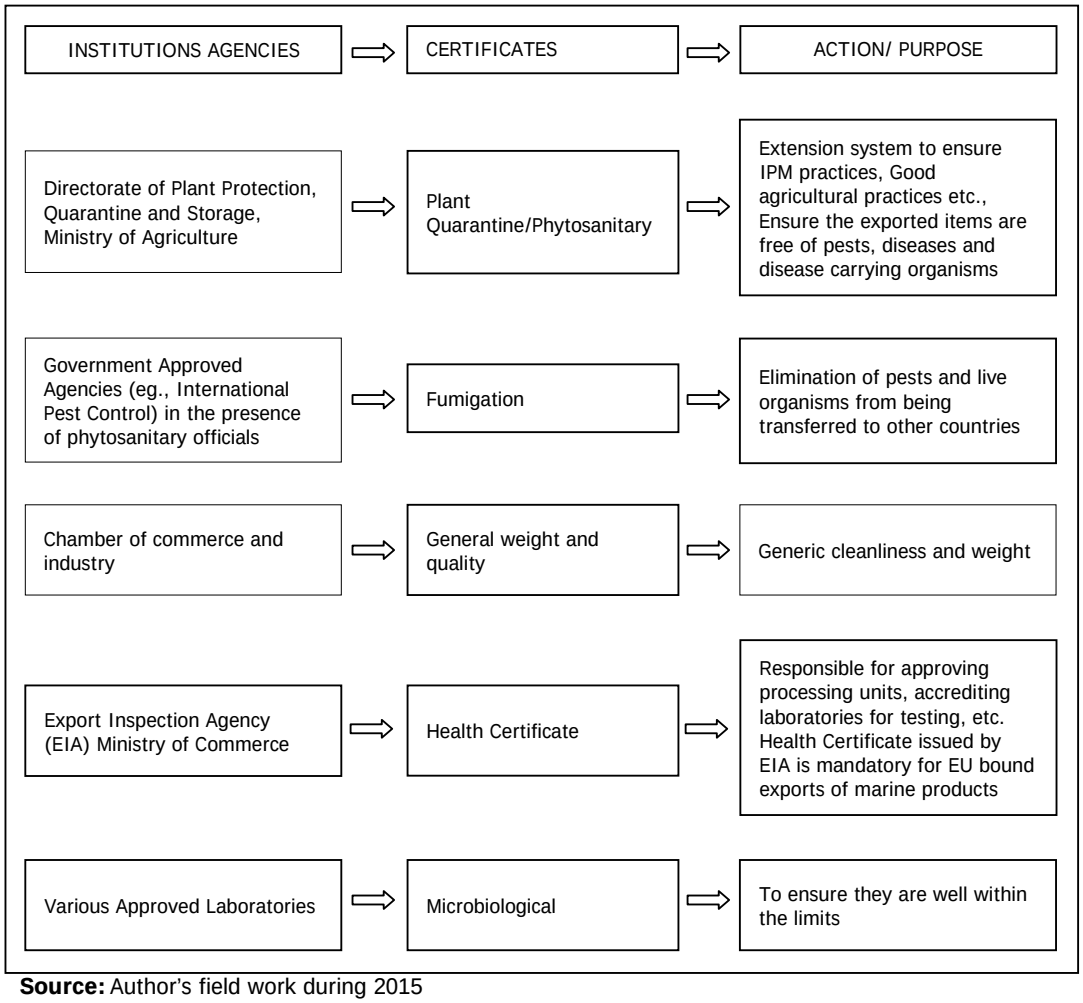


Source: Author's field work during 2015

As can be seen in the figure, the regulatory checks are done at multiple levels to confirm various physical, chemical and microbiological aspects. The following figure (Figure 4) provides an overview of the institutions involved in the chain, pertinent certificates that are to accompany the export consignment and the action/purpose they denote.

[3] Marine products do not come under the purview of plant protection measures, so they skip the phytosanitary certification and fumigation. However, exporters of fish meal and oils have to obtain phytosanitary and fumigation certifications mainly because wooden pallets are used in containerization.

Figure 4: The Food Safety and Plant Health Regulatory Certification System in Export Chain



Source: Author's field work during 2015

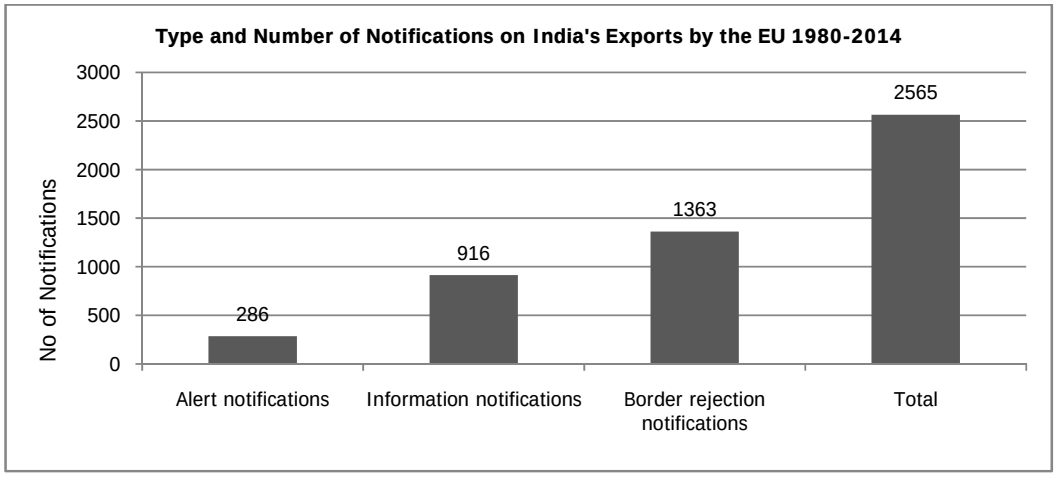
Health and environmental risks identified in products are retained for further action in the notifying country. The notifying country (in this case, member-countries of the EU) reports on the risks, the product, its traceability and the adopted measures. According to the seriousness of the risks and the distribution of the product, the market notification is classified after evaluation by the Commission. Basically, there are three types of notification, (1) Information, (2) Alerts and (3) Border rejection. They are explained briefly in Table 3;

Table 3: Types of Rapid Alert Notifications and Their Implications

Type of Notification	Implications
Alert notification	Sent when a food item that contains serious risk is available in the market, and when immediate action is required.
Information notification	Concerns a food item that was placed in the market for which a risk has been identified but for which the other member countries do not have to take immediate action because: (1) The product has not reached their market or no longer present in their market and (2) The nature of the risk is not considered serious.
Border Rejection	Concerns a food or a feed that was refused entry into the EU for reason of a health risk.

Historically, alerts and notifications from the EU had implicated Indian exporters in a variety of ways. The Rapid Alert system started issuing warnings and notifications in the early 1980s but only in recent years the issue has become more severe with higher incidences of border rejections and consignment destruction. During the long period between 1980 and 2014, Indian authorities were issued a total of 2,565 notifications (Figure 5), out of which the majority were border rejections, followed by information and alerts. Given the regulatory set up for the export supply chain in India, this poor scenario raises many pertinent questions related to the larger institutional network in place.

Figure 5: Type and Number of Notifications on India's Exports by the EU during 1980-2014



Source: Compilation based on Rapid Alert Portal Database, 2015.

The lack of institutional trade facilitation and non-compliance by the exporters are evident in the following table, which furnishes notifications on Indian exports across major product categories which come under prominent export promoting institutions such as APEDA, MPEDA, Spices Board, etc. Table 4 below provides the magnitude of notifications on various product categories issued by the EU on the consignments that originated from India.

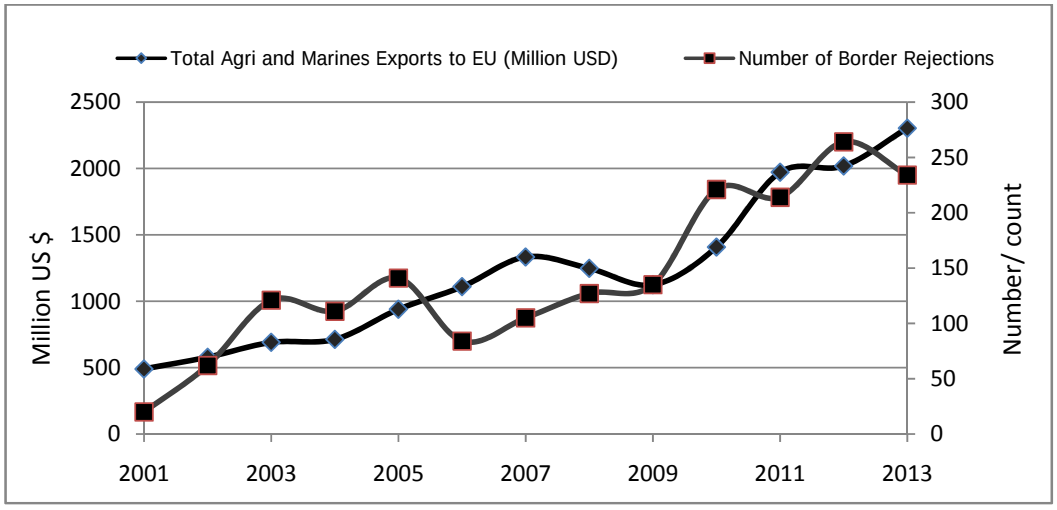
Table 4: Number of EU Notifications by Product during 2001-14

	Products	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Herbs and Spices	4	10	35	40	55	24	30	19	29	121	66	65	40	29
2	Nuts, Nut products and Seeds	3	0	1	32	24	9	18	30	22	30	49	41	25	42
3	Fruits and Vegetables	0	1	17	3	8	1	4	8	12	31	52	104	119	49
4	Eggs, Meat and their Products	0	0	9	0	0	1	0	0	1	0	0	0	1	0
5	Marine Products	13	50	59	25	35	35	27	40	57	29	28	31	12	29
6	Others	0	1	0	11	19	14	26	29	14	10	19	23	37	54
	Total	**20**	**62**	**121**	**111**	**141**	**84**	**105**	**127**	**135**	**221**	**214**	**264**	**234**	**203**

Note: Number of times the EU issued notifications on Indian exports during 2011-14 across categories. '0' denotes no notifications in that year for the respective category (for instance, in 2002 there was no notification on nuts, nut products and seeds implying no export consignment in this category was seized, retained or asked to furnish additional information by EU border authorities, marking a smooth access to the market). Source: Compilation based on Rapid Alert Portal Database, 2015.

India's agricultural and marine exports to the EU between 2001 and 2013 tremendously increased from $0.49 billion to $2.30 billion with an exponential growth rate of 12.22 per cent as already explained in Section 2. In the same period the number of border rejection cases also increased with a higher growth rate of 14.66 per cent. This reflects a predominant increase in the number of rejections during this period. The increase in border rejections moved in tandem with growth in exports with a high positive correlation of 0.87 (Figure 6). However, based on this information, it is not possible to infer whether this trend is a reflection of higher rates of border inspections or improvement in inspection standards in the EU region or poor standards of compliance by Indian exporters.

Figure 6: Trend in Export Values of India's Agricultural and Marine Products to the EU and Number of Border Rejections by the EU during 2001-13



Source: APEDA for Agricultural Exports and European Commission for Notifications, 2015.

The annual growth rate of notifications exhibits a high degree of fluctuations compared to the export value. Given the limited data on notifications (just the number of notifications without the quantity involved) it is difficult to make a comprehensive assessment of the magnitude of the problem. The unit rates and relative rates of notifications seem to be the only plausible ways to make a judgement.

Table 5 presents the unit rejection rates and relative rejection rates of Indian food products to the EU. Unit rejection rate refers to the number of rejections per US$1 million of exports in a particular year and, because it takes into account changes in export volumes, it is considered as a direct measure of the rate of non-compliance. The relative rejection rate is obtained by taking the ratio of India's share in total rejections by the EU to India's share in the EU's total imports in the respective year. The unit rejection rate has increased from 0.04 to 0.10 between 2001 and 2013. The unit rejection rate was the highest in 2003. The relative rejection rates also show that India is a bad performer.

Table 5: Trends in Unit Rejection Rates and Relative Rejection Rates between 2001 and 2013

	Unit Rate of Notification	Relative Rate of Notification
2001	0.04	0.43
2002	0.11	0.71
2003	0.18	0.96
2004	0.16	0.74
2005	0.15	0.71
2006	0.08	0.45
2007	0.08	0.49
2008	0.1	0.57
2009	0.12	0.67
2010	0.16	1.03
2011	0.11	0.88
2012	0.13	1.19
2013	0.1	1.26

Source: Compilation based on Rapid Alert Portal and UN Comtrade Databases, 2015.

A closer scrutiny of border alerts and rejections of India's exports

We have broadly classified two types of reasons for the alerts issued by the EU on a consignment from India. These are:

(1) Notifications due to a genuine food safety concern: these include all notifications for which the basic concern is of public health such as the presence of mycotoxins, pesticide residues, normal decay, pathogens, other residues, adulteration, etc.

Two illustrations from the Rapid Alert would appear like this: (1) *Aflatoxins (B1=9.0 µg/kg-ppb) in crushed chillies from India. (2)Cadmium (1.4 mg/kg – ppm) in frozen squid (Loligo spp) from India.*

(2) Notifications due to information asymmetry or lack of sufficient documentation: these include notifications arising not due to the presence of a public health risk but shortcomings in the documentation accompanying the consignment or unapproved processing of the product. This is also due to the lack of updated knowledge on the part of the exporter who may have processed goods in an unauthorised facility or the consignment was not accompanied by a requisite health certificate, etc. The product may be free of any genuine food safety or plant quarantine concerns, however, since the documentation and other associated requirements were not met, the products are put on alert or rejected.

Two illustrations from the Rapid Alert would appear like this: *Absence of Health Certificate(s) for curry leaves from India. (2) Unlabelled irradiation or irradiation in an unauthorised facility.*

An analysis of reasons for rejection of products reveals that maximum number of rejections belong to food safety related issues (Table 6). Further, there has been an appreciable growth in the number of notifications due to these reasons. The prominent reasons for the notifications are mycotoxins, pesticide residues and pathogenic micro-organisms. Together, they accounted for an average of 57 per cent of total notifications in this period. The existence of residues of veterinary medicine also figured prominently till 2009. Reasons related to logistics and information asymmetry stand next to the food safety issues. There is no steady trend in the number of notifications issued due to this reason. The notifications due to food safety concerns have shown more or less a consistent trend with a growth rate of 14.32 per cent during this period. In 2001 and 2002, it was the only reason for notifications by the EU for Indian products in the selected category. Their share in total reasons for notifications has declined over the period. Still they account for about 83 per cent of total notifications of selected Indian products by the EU.

Among the product categories herbs and spices, nuts, nut products and seeds, fruits and vegetables and marine products are the hardest hit in terms of number of notifications due to food safety issues. Notifications of fruits and vegetables due to food safety issues suddenly increased after 2011. Among these, the existence of pathogenic micro-organisms and residue of pesticides and veterinary medicines are the major causes for the maximum number of notifications. Herbs, spices and marine products are subject to more stringent regulations due to information asymmetry, lack of sufficient documentation and related issues.

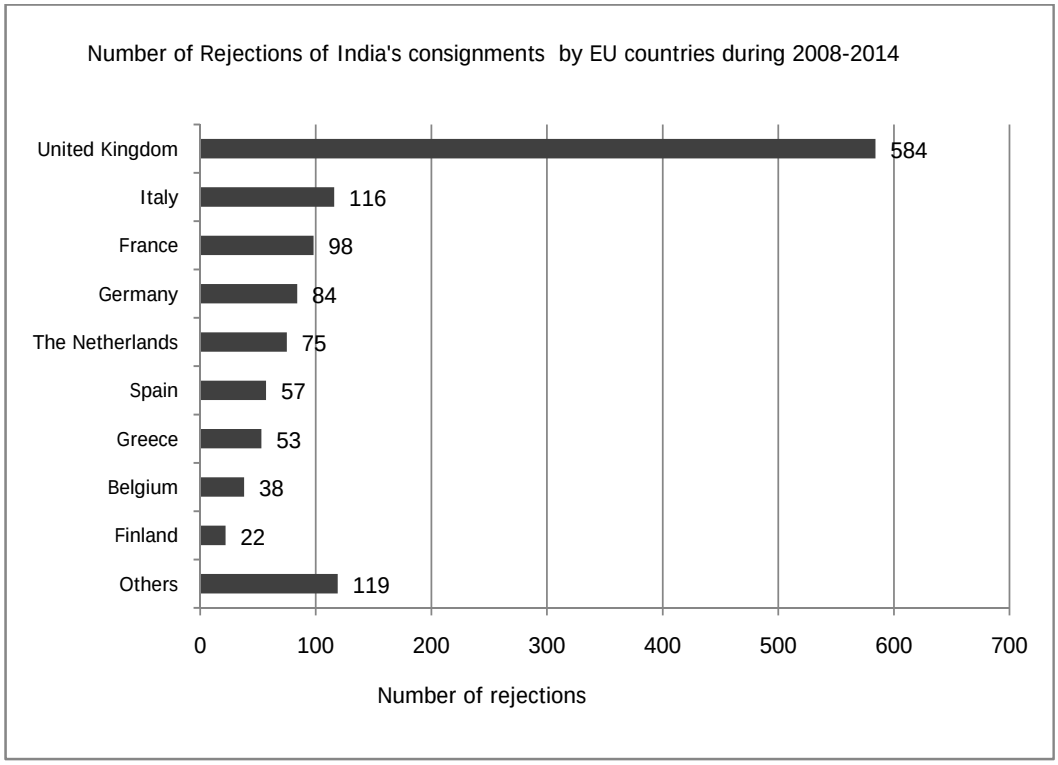
Table 6: Year and Product-wise Classification of the Reasons for Notification by the EU on India's Exports

Reasons	Products	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Food Safety	Herbs and Spices	4	10	11	9	32	17	26	15	21	112	65	64	37
	Nuts, Nut Products and Seeds	3	0	1	33	24	9	17	26	21	24	46	42	19
	Fruits and Vegetables	0	1	16	2	2	1	3	8	10	29	51	101	113
	Eggs, Meat and Their Products	0	0	9	0	0	0	0	0	0	0	0	0	1
	Marine Products	15	52	40	22	34	32	22	40	48	17	23	15	11
	Total	**22**	**63**	**77**	**66**	**92**	**59**	**68**	**89**	**100**	**182**	**185**	**222**	**181**
Logistics/Information Asymmetry	Herbs and Spices	0	0	24	31	24	9	4	4	8	10	1	2	3
	Nuts, Nut Products and Seeds	0	0	0	0	1	0	2	4	1	8	4	2	7
	Fruits and Vegetables	0	0	1	1	6	0	1	0	2	4	1	3	6
	Eggs, Meat and Their Products	0	0	0	0	0	1	0	0	2	0	0	0	0
	Marine Products	0	0	6	3	2	4	4	1	10	14	5	16	3
	Total	**0**	**0**	**31**	**35**	**33**	**14**	**11**	**9**	**23**	**36**	**11**	**23**	**19**
Total No. of Notifications		**22**	**63**	**108**	**101**	**125**	**71**	**79**	**99**	**123**	**218**	**196**	**245**	**200**

Note: Number of times the EU issued notifications on Indian exports during 2011-14 across categories. '0' denotes no notifications in that year for the respective category and reason. Source: Compilation based on Rapid Alert Portal Database, 2014.

Of the total notifications, there were alerts, information and border rejections. Border rejection is considered to be the extreme measure as the exporter has to incur significant additional costs in order to take back the consignment or reroute them to another country, or, in worst cases, bear the loss if they are destroyed at the port. Systematic data on rejections are available from 2008. The consignments from India are rejected due to a variety of reasons as explained in the previous section. Here, an attempt is made to explore the magnitude of rejection by member-countries of the EU. Figures 7 and 8 show the distribution of border rejections over the period 2008 to 2014 across EU member-countries and across major product categories.

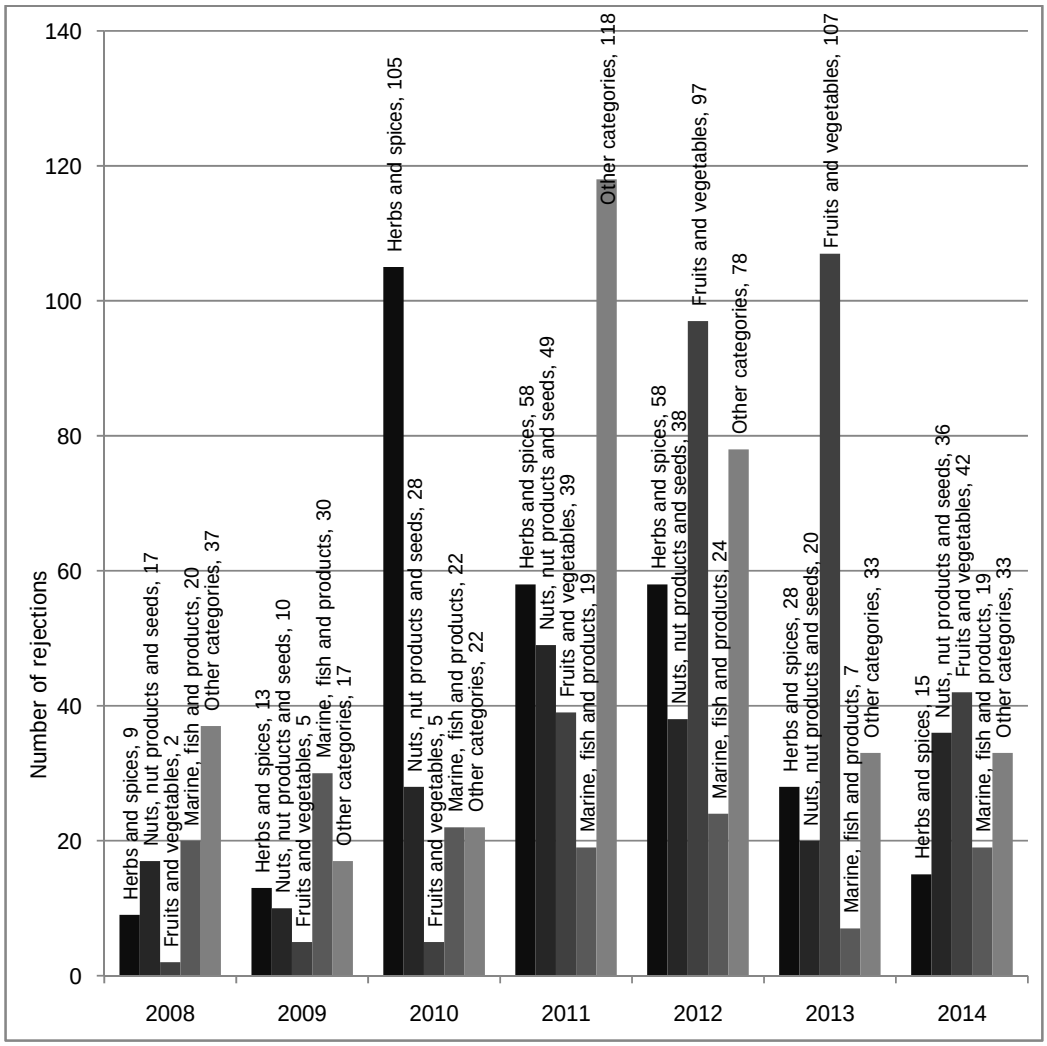
Figure 7: Magnitude of Border Rejections of India's Exports – EU Member Country-wise (All product categories)



Source: Compilation based on Rapid Alert Portal Database, 2015.

The United Kingdom rejected India's exports the maximum number of times (584 incidents reported) during 2008-14, followed by Italy (116), France (98), Germany (84) and The Netherlands (75). Many other countries also rejected consignments originated in India but the overall incidence has not been significant. This also reflects upon the wide differences between the various member-countries of the EU in their inspection systems and regulatory enforcements. The details of major products affected are furnished in Table 2. It can be observed that there is no specific pattern of the rejections for any particular product category over the years. However, fruits and vegetables, nuts and nut products and marine products appear to have been affected more or less uniformly over the period 2011-14.

Figure 8: Trend in Border Rejections – Major Product-wise



Source: Compilation based on Rapid Alert Portal Database, 2015.

Among all the food products rejected by the EU over this period, the share of marine products considerably declined while the shares of fruits and vegetables and other food products increased markedly. The number of rejections of herbs and spices, nuts, nut products and seeds increased but subject to a lot of variations throughout the period. In the other categories, milk and milk products, eggs, egg products, meat and meat products have a negligible share while bakery and confectionary items have a higher share in the total rejection of food products by the EU. Rejections from the UK do not show a steady pattern but the most affected product categories across the period are herbs and spices, marine products, nuts and nut products, cereals and bakery products. This actually would provide a lead while renegotiating the NTBs on the lines of India's ensuing FTA with the EU.

Summary and Conclusions

Developing countries have a great stake in the liberalised agricultural trade regime. However, market access to these countries is often hampered by the newer challenges of NTBs and information asymmetry imposed mostly by developed countries. This paper has reviewed some of the key issues related to the setting of standards and the effects of trade regulations and trade facilitation in the context of India's agri-food exports to the EU, specifically at the sectoral and institutional levels. For Indian producers and exporters, the predominance of information related NTBs exists in the export supply chains of agri-food products. This is more acutely felt in the categories of herbs and spices and nut products.

The new measures of competitiveness implies that not only the properties of the final product matter, but also the process, packing and shipping are becoming determinants of market access. The rate of export rejection notifications was alarmingly high during 2009-13. However, making sense of the number of notifications still has many forewarnings. Evidently, more notifications were issued by a few member countries of the EU. The United Kingdom rejected India's exports the maximum number of times, followed by Italy. This pattern indicates that though EU has a centralized system of food safety inspection and notification and India should engage in bilateral talks on these issues based on the value and intensity of exports. At the same time, differing regulations in different markets also give rise to problems of constrained institutional capacities. It is easy to conclude that Indian producers and exporters of agri-food products still have a long way to go in reorienting institutional support and making their commodities competitive. This also reflects the underinvestment in green box measures, which include investing in training and creating awareness, expediting research, strengthening specific infrastructure, etc.

Finally, more issues with information asymmetry and lack of sufficient documentation give rise to concerns at the institutional level despite having mandatory certifications for the specific products. The high number of border rejections and consignment destructions impacts very negatively on Indian exports. These are the unmeasured losses in the value of exports and have never been treated as important in policy parlance.

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