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EU SUSTAINABILITY REGULATIONS: IMPLICATIONS FOR INDIA'S RICE EXPORTS

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EXECUTIVE SUMMARY

India is the world's largest producer and exporter of rice. In 2024-25, rice production reached 150 million tonnes, while exports were valued at USD 11.8 billion, accounting for 29 per cent of global rice exports. Rice is critical to India's food security, rural livelihoods and the agricultural economy.

The European Union (EU) is a strategically important market for Indian rice, particularly high-value basmati rice. Although the EU ranked 12th among India's largest export destinations in 2024, India is the top most destination from which EU imports rice (accounting for 13 per cent of the EU's rice imports in 2025). Basmati rice constituted 92

per cent of India's rice exports to the EU in 2025-26, highlighting the importance of the EU market for Indian exporters in this segment.

However, access to the EU market increasingly depends on compliance with regulatory standards that extend beyond internationally recognised food safety benchmarks such as Codex Alimentarius. The EU is expanding its regulatory framework to include environmental, labour and traceability requirements through the European Union Corporate Sustainability Due Diligence Directive (EUCS3D), with compliance obligations beginning from 2027

in a phased manner, based on the EU company's turnover (see Box 1). Failure to comply may result in penalties for companies covered under the EUCS3D,

making sustainability and supply chain compliance increasingly important for Indian rice exporters.

Box 1. EU Corporate Sustainability Due Diligence Directive (EUCS3D): At a Glance

Who is covered? EU companies with 1,000+ employees and EUR 450 million+ global turnover, and certain non-EU companies generating EUR 450 million+ turnover in the EU.

Applicability: Phased implementation beginning 2027.

Requirements: Conduct environmental and human rights due diligence, ensure supply chain traceability, address identified risks, monitor compliance and publicly report on due diligence measures.

Non-compliance: May result in administrative penalties, including fines linked to a company's global turnover (up to 5 per cent), along with corrective measures and public disclosure.

Relevance for India: Indian rice exporters supplying covered EU companies will increasingly need to demonstrate compliance with environmental, labour and traceability requirements.

Source: Compiled by authors from EU Commission

Given this background, the **objective** of the working paper is to examine the implications of evolving EU food safety and sustainability regulations for India's rice exports. It assesses India's export compliance ecosystem, identifies key food safety, environmental and labour related risks, evaluates institutional preparedness to meet emerging EU requirements such as EUCS3D and proposes policy recommendations to strengthen India's competitiveness in the EU and other regulated export markets.

Key Findings

1. The study identifies three major challenges affecting India's rice exports to the European Union (EU):

- **Challenge 1: Lack of Tariff Reduction Advatage vis-à-vis Competitors**

Rice is excluded from tariff liberalisation under the India-EU free trade agreement (FTA). As a result, Indian rice exports continue to face the EU's 7.7 per cent MFN tariff, while competitors such as Viet Nam benefit from its FTA with the EU. India's Genralised System of Preference (GSP) benefits will expire in 2027, unless renewed. This reduces India's price competitiveness *vis-à-vis* its competitors, which have zero duty due to their FTAs.

- **Challenge 2: Export Rejection for not Meeting EU Food Safety Standards**

Between 2021 and 2025, over 200 Indian rice consignments were rejected and notified through the EU's Rapid Alert System for Food and Feed (RASFF) due to pesticide

residues exceeding the maximum residue limits (MRLs), the presence of heavy metals (such as lead), aflatoxins and other contaminants. Such rejections are far more than that for many of our competitors (see Table A)

• Challenge 3: Emerging Sustainability Requirements

With the implementation of the EUCS3D, Indian exporters will be required to identify, assess, mitigate and report environmental and labour-related risks across their supply chains, supported by stronger traceability, audits and meet other due diligence requirements.

Table A: Comparison of Major Rice Suppliers to the EU: Market Share (%), Preferential Access, and Export Rejections, 2025

Ranks based on 2025	Exporters	EU's Imported value in 2025 in Million USD	% Share in EU's Imports in 2025	Preferential Access	No. of RASFF Notifications for Export Rejections (1st January-31st December 2025)
1	India	550.8	13.2	X	52
2	Pakistan	348.8	8.4	X	55
3	Cambodia	303.7	7.3	X	1
4	Myanmar	287.8	6.9	X	0
5	Thailand	266.9	6.4	X	0
6	Uruguay	166.0	4	✓	0
7	Argentina	98.1	2.4	✓	0
8	Viet Nam	77.9	1.9	✓	1
9	Guyana	64.1	1.5	X	0
10	United States of America	36.7	0.9	X	0

Source: Compiled by authors from ITC Trade Map, RASFF Portal and EU Market2Access

2. Indian corporate preparedness for emerging EU sustainability requirements remains uneven:

The study finds that while some large Indian rice manufacturers/exporters have begun aligning with evolving EU requirements through stronger traceability, sustainability certifications, and environmental, social and governance (ESG) practices, preparedness across companies and farmers vary, with SMEs and small farmers facing significant constraints in terms of lack of knowledge

and/or awareness, technology, finance and fragmented supply chains. They are increasing at risk of exclusion from EU value chains. The analysis also shows that while measures are being taken by Indian companies to identify and address environmental and labour-related risks, many firms do not adequately report these efforts through their websites, sustainability reports and other public platforms.

3. Persistent product rejections point to institutional gaps in India's export compliance ecosystem:

Despite agencies such as Export Inspection Council (EIC) and Agricultural and Processed Food Products Export Development Authority (APEDA) trying to implement export controls, rejections of rice in the EU are high due to gaps in inspection processes, testing, certification and traceability.

4. Lack of Alignment with EU Requirements at the Farm Level.

High doses of chemical fertilisers and pesticides increases the likelihood of product rejections. In contrast, competitors such as Cambodia have aligned their domestic regulations on the use of pesticides more closely with EU food safety

requirements. When the EU banned the use of tricyclazole, Cambodia also banned it, contributing to lower rejection rates and stronger export performance.

5. “High” Environment and Labour Risks that Need Immediate Attention:

The working paper identifies six environmental and four labour-related risks (see Figure B), which are considered to be “high” as per various audits and studies conducted in India for rice. These risks require targeted interventions to strengthen food safety, traceability, environmental sustainability and labour due diligence across India's rice value chain. Based on that, the paper makes 12 recommendations to mitigate them, which are discussed below.

Figure B. High Environmental and Labour-Related Risks Identified for India's Rice Exports

Environmental Risks	Labour Risks
I. Presence of residues from restricted pesticides	I. Limited labour traceability and documentation in MSME supply chains
II. Inadequate storage, drying and post-harvest handling leading to mycotoxin contamination	II. Informal employment and poor working conditions of seasonal migrant labour
III. Greenhouse gas emissions	III. Occupational health risks from pesticide exposure
IV. Groundwater depletion	IV. Child labour and monitoring challenges
V. Heavy dependence on chemical fertilisers	
VI. Monocropping and biodiversity loss	

• Recommendation 1: Implement Farm-to-Export Supply Chain Traceability

There is an urgent need to establish traceability across all farms from which exports originate. In this context, APEDA has come out with basmati.net but such platforms need to be strengthened to

ensure strict adherence to EU requirements. Traceability should not only include food safety but also labour and environment audits to reduce export concerns such as those linked to soil health or agricultural labour and their working conditions.

International experience suggests that digital traceability systems are increasingly becoming a competitiveness tool rather than merely a compliance requirement. Countries such as South Korea are already working towards aligning their cross-border paperless trade initiatives and the EUCS3D, so that when the EU implements the regulations, exports do not face any barriers and/or the barriers are reduced.

- **Recommendation 2: Indian Companies Should Focus on Identifying, Prioritising and Mitigating Environmental and Social Risks and Conduct Regular Audits**

Rice exporters and processors should undertake regular environmental and social audits covering pesticide use, water management, labour conditions, occupational safety and child labour risks across their supply chains. The central and state governments should support the development of sector-specific due diligence frameworks and capacity-building programmes, particularly for MSMEs. Existing practices adopted by companies such as LT Foods Ltd. and KRBL Ltd. demonstrate the feasibility of integrating sustainability reporting, supplier monitoring and labour compliance systems into business operations. These practices should be scaled-up through awareness building and training programmes.

- **Recommendation 3: Strengthen Export Control and Compliance Systems**

Export control agencies should strengthen monitoring, inspection and certification systems to ensure compliance with EU food safety requirements. A designated nodal agency should be established on the Indian side as the single point of contact to co-

ordinate farm-level traceability data such as geotagging, laboratory test results, audit reports and certification records and to facilitate electronic exchange with EU authorities through a shared digital platform. Any concerns related to exports then can be raised with data and evidence using the platform agreed upon in the FTA. The central and state governments should strengthen the regulation and monitoring of pesticides that are banned or highly restricted in key export markets and promote good agricultural practices (GAP), sustainable rice platform (SRP) standards and the judicious use of agricultural inputs. Exporters and millers should complement these efforts through farmer training, supplier monitoring and residue-testing programmes.

- **Recommendation 4: Improve Post-Harvest Practices to Reduce Aflatoxin B1 and Ochratoxin A Contamination**

The government should prioritise upgrading APMC infrastructure with modern warehousing systems, and temperature and moisture control mechanisms to reduce post-harvest spoilage and fungal growth. This should be supported by technology-based digital recording and traceability systems to ensure end-to-end tracking of produce from farm to export, enabling quick identification of contamination sources in the case of aflatoxin B1 or ochratoxin A detections. At the industry level, exporters and processors should strengthen post-harvest management practices by adopting improved drying methods, hygienic storage conditions, moisture control systems and routine mycotoxin testing throughout storage and logistics.

- **Recommendation 5: Reduce Greenhouse Gas Emissions through Clear Strategies and Measurable Targets**

The central and state governments should develop targeted strategies to reduce greenhouse gas emissions from rice cultivation, with measurable targets for methane reduction and elimination of crop residue burning. States should also strengthen programmes for in-situ crop residue management and provide greater access to residue-management machinery to discourage stubble burning. Industry stakeholders should support adoption of these practices through farmer training and sustainable sourcing initiatives.

- **Recommendation 6: Promote Water-Efficient Rice Cultivation and Sustainable Groundwater Management**

State governments, particularly in Punjab, Haryana, and western Uttar Pradesh, should promote water-efficient cultivation practices such as alternate wetting and drying (AWD), system of rice intensification (SRI), and direct-seeded rice (DSR) through targeted incentives and demonstration projects. They should also rationalise electricity subsidies, strengthen groundwater regulation and encourage efficient irrigation practices to reduce excessive groundwater extraction.

- **Recommendation 7: Focus on Improving Soil Health and Reducing Nitrogen-Based Fertiliser Use**

There should be stronger focus on improving soil health through regular soil testing and balanced nutrient management. The government should strengthen the soil

health card programme, expand soil testing infrastructure and promote balanced fertiliser use, including organic and bio-fertilisers, while reducing excessive dependence on nitrogen-based fertilisers.

- **Recommendation 8: Promote Biodiversity in Rice Cultivation**

The government should promote crop diversification, reduce monocropping and encourage biodiversity-friendly practices such as integrated rice-fish farming (IRFF) and support these through targeted incentives, farmer training and extension services, drawing on international best practices such as the EU's biodiversity-linked agricultural support. At the industry level, agri-businesses should support farmers through soil monitoring programmes, training on sustainable input use and adoption of precision agriculture techniques.

- **Recommendation 9: Support Farmers and SMEs in Accessing Green Finance**

Government may develop standardised ESG frameworks and practical guidelines to help farmers and SMEs access carbon credits, green finance and sustainability-linked incentives.

- **Recommendation 10: Strengthen Labour Standards and Occupational Safety**

State governments should ensure effective implementation of the four labour codes by strengthening enforcement, inspections and grievance mechanisms. Companies should undertake regular labour audits, covering wages, occupational health and safety, and working conditions.

- **Recommendation 11: Eliminate Child and Forced Labour Across the Rice Value Chain**

The government should strengthen the enforcement of child and forced labour laws through inspections and monitoring, while exporters should adopt supplier codes of conduct, third-party audits and traceability systems to ensure compliance across the value chain.

- **Recommendation 12: Farm-Firm Linkage**

The best way to raise exports to the EU by meeting various existing and upcoming compliance requirements is to produce organic produce exclusively for the EU market. This can be best achieved by linkage and agreements between exporting firm and producers. States should facilitate such arrangements by enabling legal provisions like contract farming. FPOs interested in

receiving a premium price should also be encouraged to tap this opportunity.

Compliance with food safety, environmental and labour standards is no longer a market-specific requirement but a prerequisite for accessing premium global markets. The EU is shifting from voluntary sustainability standards to legally binding regulations with clear enforcement mechanisms and penalties, making it imperative for Indian exporters to prepare for emerging requirements such as the EUCS3D. The India-EU FTA provides a strategic platform to reduce compliance costs through mutual recognition of audit and certification systems and bilateral co-operation on sustainability and due diligence under EUCS3D. Strengthening India's compliance ecosystem domestically, while leveraging the FTA's co-operative provisions, will determine its long-term competitiveness in the EU and other regulated markets.