



Original Research Paper

Agricultural Marketing Regulation and Sustainable Agricultural Development: A Socio-Legal Study of Punjab

Bhavyya Sharma^{1*}, Dr. Vanita Khanna²

^{1*}Research Scholar, Guru Nanak Dev University, Amritsar.
Email: bhavyasharma8@gmail.com.

²Assistant Professor, Guru Nanak Dev University, Amritsar.
Email: vinikhanna05@gmail.com.

Abstract

Punjab has been considered to be the agricultural hub of India in terms of its agricultural output and procurement activities, which are carried out as per the functioning of Minimum Support Price (MSP) system. High agricultural productivity and large-scale procurement under the Minimum Support Price (MSP) system, make Punjab the one of the agricultural hubs of India and a key contributor to ensuring food security of the nation. Yet, recently the viability of Punjab's agriculture has been under growing threat because of a deterioration of the environment, a depletion of groundwater, crop monoculture, climate change and new agricultural marketing rules.¹ The collapse of 2020 farm laws and the resurgence in the subject of robust market regulation to boost the agricultural produce market committee (APMC) system, liberalization, farmers welfare and sustainable agriculture have brought the consideration of these critical legal and policy arguments to the forefront. This paper analyses the relevant constitutional provisions, central and state legislation and judicial pronouncements as well as the current policy initiatives to critically examine the link between agricultural marketing regulation and sustainable agriculture in Punjab. This study examines the effects of the prevailing marketing laws on the availability of markets, price

***Corresponding Author:**

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stability, crop variety, environmental protection and the livelihood of rural industries.² It also assesses institutional problems like poor marketing facilities, translation of digital gap, low quality of regulatory enforcement, and opportunities for sustainable agriculture. The paper concludes that a comprehensive regulatory framework is needed that combines protection for farmers, environmental responsibility, transparent market regulation and agriculture policies that are resilient to climate change, without compromising one of these objectives. Finally, the study suggests a fully-fledged framework of legal and institutional measures for updating agricultural marketing and at the same time promoting ecological sustainability, market equity and sustaining the rural development of Punjab as a step towards meeting the commitments of Sustainable Development Goals (SDGs) and sustainable agricultural governance agenda for India.³

Keywords:- Agricultural Marketing Regulation, Sustainable Agricultural Development, Punjab, Socio-Legal Study, Agricultural Law and Policy

1. INTRODUCTION

Punjab is considered as the agricultural hub of our country and has a significant role in providing food security due to its significant wheat and paddy production under the “green revolution” model. To ensure a fair price realization and reduce the incidence of market exploitation of the farmers, a large network of regulated agricultural markets, Minimum Support Price (MSP) procurement and Agricultural Produce Market Committee (APMC) system has been in place since long to support the agricultural economy of the state. Yet, with the passage of time, the current marketing system in agriculture has come under severe stress due to altered economic scenario, the impact of globalization, technological progress, and concerns over environmental issues.⁴

Limited water resources, over-dependence on paddy-wheat farming, poorly developed market systems, climate change and access to markets were some concerns for the sustainability of the agriculture sector in Punjab. The farmer protests continued further as a result of abolishment of the Central Farm Laws, 2020, which made the debate on the need for a balanced legal framework concerning agricultural markets, to balance farmer protection and market efficiency and private investment.⁵ In this background, the current study aims to explore the interplay between agricultural marketing regulation and sustainable agricultural development from a socio-legal lens through Punjab's context. It examines the legal and institutional landscape, court trends and regional assessment of the socio-economic landscape pertaining to agricultural markets as well as future prospects for regulatory reform with a view to supporting sustainable and resilient agricultural development, social inclusion in markets, farmer livelihoods and sustainable rural communities. The study also aims to uncover gaps in the existing law and policies and suggest ways to enhance the governance of sustainable agriculture in Punjab.⁶

2. LEGAL FRAMEWORK GOVERNING AGRICULTURAL MARKETING IN INDIA AND PUNJAB

The overall Indian and the Punjab agricultural marketing legal system is based on the Constitution, statutes, and policy instruments that guarantee farmers' interests in an efficient and equitable agriculture market. Articles 38 and 39(b) of the Constitution of India guide the State to work for social justice and distribution of material resources for common good. Articles 48 and 48A promote modernization and scientific management of agriculture, and the protection and preservation of the environment, respectively, and thus serve to intertwine agricultural progress with ecological sustainability. Moreover, Article 246 of the Constitution together with the Seventh Schedule provides devolution of legislative powers related to agriculture largely to the States, which gives the State of Punjab the flexibility to pass agricultural legislation in accordance with the needs of its agricultural economy.⁷

The Punjab Agricultural Produce Markets Act, 1961, provides for the licensing of traders, regulation of the market transactions, collection of market fees and safeguard against unfair trade practices of the farmers in Punjab. These market committees are supervised by the Punjab State Agricultural Marketing Board, the board promotes market infrastructure development in rural areas, and it enables efficient marketing of agricultural products. The assured price policy known as the Minimum Support Price (MSP), which is primarily implemented through the procurement system- Food Corporation of India (FCI) and state agency networks. Further, the National Agriculture Market (e-NAM) aims to create a unified national market for agriculture by providing farmers greater market access to agriculture, improving price discovery, introducing market mechanisms and creating transparency and competition in the agriculture markets using electronic platforms of trading.⁸

3. AGRICULTURAL MARKETING REGULATION AND SUSTAINABLE AGRICULTURE

Agricultural marketing regulation is a fundamental component that integrates various aspects of agricultural sustainable development to enable agricultural markets to

² Constitution of India, art 39(b).

³ Constitution of India, art 48.

⁴ Constitution of India, art 48A.

⁵ Constitution of India, art 246 read with Seventh Schedule, List II, Entry 28.

⁶ Punjab Agricultural Produce Markets Act 1961.

⁷ Punjab Agricultural Produce Markets (General) Rules 1962.

⁸ Punjab State Agricultural Marketing Board Act 1961.

contribute to both economic growth and environmental protection and social equity. Sustainable agriculture is an agriculture system which meets current food and livelihoods demands without reducing the capacity of the future generation to do so. It highlights the effective use of natural resources, conservation of life and biodiversity, limitation of environmental damage, and improved farmers' income via ethical and equitable market system. All this has made sustainable agriculture more important in Punjab because of the high density of wheat and paddy cultivation, overuse of chemical fertilizers and pesticides, depleting groundwater resources and soil fertility. Adequate policies for agricultural marketing (regulated markets and minimum support prices mechanisms) as well as digital platforms (e-NAM sites) and crop diversification policies can help in providing farmers with incentives for sustainable and economic farming. In the environmental strand, marketing policies should encourage less water-consuming crops, organic farming,

residue practices and climate-smart farming practices to alleviate environmental pressures.⁹

On economic grounds, an efficient marketing system can help improve price discovery, reduce loss in post-harvest operations, benefit farmers in their negotiation power, and increase access to national and global markets, all of which boost farmers' farm incomes in a stable manner. From social aspect, agricultural marketing regulation contributes to social justice, by safeguarding the rights of the farmers, providing them with equal opportunity to markets, prevention from small and marginal farmers from getting exploited and promoting inclusive rural development. The goals align with the United Nations Sustainable Development Goals (SDGs) 1 (No Poverty), 2 (Zero Hunger), 12 (Responsible Consumption and Production), 13 (Climate Action) and 15 (Life on Land). Hence, introducing sustainability concepts in agricultural marketing legislation is crucial for ensuring the balance of economic productivity, environmental protection, and social welfare in Punjab.¹⁰

Table 1: Agricultural Marketing Regulation and Sustainable Agriculture

Dimension	Key Elements	Contribution to Sustainable Agriculture
Environmental Sustainability	Crop diversification, water conservation, organic farming, residue management	Conserves natural resources and reduces environmental degradation
Economic Sustainability	MSP, regulated markets, e-NAM, fair price discovery	Enhances farmers' income, market efficiency, and financial stability
Social Sustainability	Farmers' rights, equitable market access, rural employment	Promotes social justice and inclusive agricultural development
Institutional Sustainability	APMC regulation, Punjab State Agricultural Marketing Board, digital governance	Strengthens transparency, accountability, and market governance
Global Sustainability	Alignment with SDGs and climate-resilient agriculture	Supports long-term sustainable agricultural growth and food security

4. SOCIO-LEGAL CHALLENGES IN PUNJAB

Punjab's agriculture is facing various socio-legal problems which pose difficulties in effective regulation of the agriculture marketing system and hamper sustainable agricultural development of the state. Still, one of the biggest challenges has been the prevalent paddy-wheat system having very little attention paid to crop diversification, largely because of the Minimum Support Price (MSP) system, which ensures state procurement of paddy throughout every year. This cropping pattern has led to the improved food security in the country, although it has the drawback of discouraging crop diversification and promotion of greater water intensive cropping. This has identified groundwater depletion as a major environmental problem, with a large extraction rate for irrigation leading to a fast decrease of water tables, putting the agricultural sustainability at risk.¹¹

Current legislation or policies have not proven to be effective enough in encouraging the conservation of water resources or encouraging alternative crops. Another key concern is the market monopoly and institutional inefficiencies in regulated agricultural market where less competition, poor infrastructure and intermediaries influence the farmers bargaining power in influencing the

fair price realization. Small and marginal farmers are mostly vulnerable to these problems as they have limited access to institutional credit, storage facilities, means of transportation and reliable supply information. From the beginning of Agriculture marketing, there has been a significant shift towards digitalisation, in line with various initiatives like the National Agriculture Market (e-NAM) which has given opportunities for transparent agriculture marketing but has also exposed digital inequalities, with many farmers in rural areas being less digitally literate and less access to the internet and technological resources.¹² Furthermore, issues related to contract farming remain, notably unequal bargaining power, lack of clarity about contracts, how to resolve disputes and the poor rights to representation for farmers. Last but not least, the impacts of climate change have increased the risks of agriculture due to variability in precipitation, rising temperatures, extreme weather events and reduced crop yields. A solution to the multigenerational socio-legal issues demands multifaceted legal adjustments, robust institutional management, protective measures for nature, inclusion of technology, as well as farmer-driven policies

⁹ Food Corporation of India Act 1964.

¹⁰ National Agriculture Market (e-NAM), Ministry of Agriculture and Farmers' Welfare, Government of India.

¹¹ Ministry of Agriculture and Farmers' Welfare, *Agricultural Statistics at a Glance 2024*.

¹² Government of Punjab, *Statistical Abstract of Punjab 2024*.

that can strike a balance between market efficiency, social justice and ecological sustainability.¹³

5. JUDICIAL TRENDS AND RECENT CASE LAWS

The Indian judiciary has been a major contributor to the development of agricultural marketing rules and agricultural sustainable governance in India. Decision-makers have consistently highlighted the importance of valuing the maintenance of agricultural markets within the Constitution, the law and the interest of the public, with fairness, transparency and environmental care. However, recent court rulings show that ecological claims for conservation and demands for institutional accountability have been rising alongside the development of agriculture. In *Harbinder Singh Sekhon v. State of Punjab* (2026), the Supreme Court reiterated that sustainable development is a part of constitutional governance and that the land use for industrial/commercial building must be strictly within the framework of statutory provision of land use planning and environmental protection measures. The decision emphasized the need for a sustainable management of the land's fertile agricultural areas and ecological balance, ensuring it remains available for future generations. Likewise, in the case of *Sandeep Singh v. State of Punjab* (2026), the Punjab and Haryana High Court addressed the powers and duties of the Punjab State Agricultural

Marketing Board, as provided by the Punjab Agricultural Produce Markets Act.¹⁴

The Court noted that a regulated agricultural market continues to play an important role in transparency, avoiding market exploitation and in the interest of farmers. Judicial precedents established in earlier cases also have had a strong impact on agricultural marketing law. The Supreme Court in *Amar Nath Om Prakash v. State of Punjab* (1985) ruled that market fees under the Punjab Agricultural Produce Markets Act were an essential part of developing market infrastructure and regulating agricultural trade, and thus constitutional in nature. Equally, the Delhi Agricultural Marketing Board vs. Haku mat Rai (2016) laid down the ground rules of statutory licensing and regulatory regimes of agricultural marketing boards, thereby establishing lawful marketing governance regimes. Taken together, these decisions signal an emerging balanced philosophy for regulating agriculture, which serves farmers' interest, markets that are fair and open, environmental and climate considerations, and institutions that are accountable.¹⁵

Table 2: Important Judicial Decisions on Agricultural Marketing Regulation

Case	Year	Court	Key Legal Issue	Significance
Harbinder Singh Sekhon v. State of Punjab	2026	Supreme Court of India	Conversion of agricultural land and environmental compliance	Reaffirmed sustainable development and adherence to statutory land-use and environmental norms.
Sandeep Singh v. State of Punjab	2026	Punjab & Haryana High Court	Powers of the Punjab State Agricultural Marketing Board	Strengthened the institutional role of regulated agricultural markets and statutory governance.
Amar Nath Om Prakash v. State of Punjab	1985	Supreme Court of India	Validity of market fee under the Punjab Agricultural Produce Markets Act	Upheld the constitutional validity of market fees for effective regulation and market infrastructure development.
Delhi Agricultural Marketing Board v. Haku mat Rai	2016	Supreme Court of India	Licensing and regulatory powers under agricultural marketing laws	Clarified statutory licensing requirements and reinforced transparent regulation of agricultural markets.

6. COMPARATIVE ANALYSIS

There is great variation across states in India and between India & overseas regarding the regulation of agricultural marketing due in the first place to differences in their legal structures, institutional capacities, market infrastructure and policy priorities. The marketing system prevalent in Punjab is essentially under the Agricultural Produce Market Committee (APMC) model with a large system of Minimum Support Price (MSP) procurement for wheat and paddy. While this system has provided an income stability of farmers, it has also committed their focus to crop monoculture, over-consumption of groundwater and crop variety reduction. Similarly, Haryana has a similar APMC system and excellent MSP procurement system, but there has been relatively better progress in promoting horticulture, micro-irrigation, and digital agricultural services. In Maharashtra, more liberal agricultural market reforms are in place, allowing for more private market interaction, direct farmers to consumers' marketing, farmer producer organizations and electronic markets, which intensifies the contest among markets and enhances farmers' marketing options. The Karnataka Government has been a pioneer in the field of agricultural marketing reforms with the creation of a digital platform that brings all the market committees together, called Unified Market Platform, improves efficiency in agricultural transactions, and facilitates transparent price discovery.¹⁶

The European Union (EU) also plays a prominent role at an international level supporting sustainable agriculture under the Common Agricultural Policy (CAP), which offers financial support for environmentally friendly farming, conservation of

¹³ NITI Aayog, *Doubling Farmers' Income: Strategy and Action Plan* (2017).

¹⁴ Food and Agriculture Organization (FAO), *The Future of Food and Agriculture: Trends and Challenges* (2017).

¹⁵ United Nations, *Transforming Our World: The 2030 Agenda for Sustainable Development* (2015).

¹⁶ World Bank, *Future of Food: Shaping the Global Food System to Deliver Improved Nutrition and Sustainability* (2021).

biodiversity and adaptation to climate change. Likewise, Australia has a tightly competitive agricultural marketing system assisted by advanced digital technologies and water resource management, biosecurity protocols, and farm practices that are resilient to climate change. These comparative experiences illustrate that establishing a sustainable agricultural marketing system will need a holistic legal approach that incorporates aspects of efficient market regulation, technological innovation, protection of the environment, diversification of cropping systems and institutional accountability. Punjab can learn from these best practices, continuing to operate farmers-centric procurement system, and work towards improving ecological sustainability.¹⁷

7. POLICY ANALYSIS

The implementation of agricultural marketing policies is important for sustainable agricultural developments as it affects the market access and price realization, environmental conservation, as well as the welfare of farmers. Much has been done in recent years in the area of APMC reforms with focus on improving the transparency, eliminating unnecessary market intermediaries, strengthening the market infrastructure and assuring competition and protecting the interest of farmers. At the same time, the rollout of the National Agriculture Market (e-NAM) has aimed to link agricultural markets in India through its digitisation and provide opportunities for auction-based trading, price discovery, greater transparency and market access. While Punjab has been a part of e-NAM, there is still a need for greater investment in electronic infrastructure, awareness building among farmers and Internet connectivity to reap the full benefits of e-NAM. Additionally, a key policy concern is the introduction of crop diversification in wheat and paddy farming where farmers can reduce the environmental degradation and long-term sustainability of their farms by moving away from water-intensive crops and toward pulses, oilseeds, maize, fruits and vegetables.¹⁸

The same is true for sustainable procurement: government procurement policies to encourage environmentally friendly agricultural practices, organic farming and climate-resilient crop production. In recent years, various emerging programs, like carbon farming incentives, have provided farmers with financial incentives for implementing practices that sequester carbon, help them cut down on GHG emissions and boost soil health. Additionally, digital agricultural markets with the support of artificial intelligence and blockchain technologies, along with digital payment and market information, can enhance transparency and lower transaction costs. Lastly, incorporating elements of sustainability, efficient use of water resources, renewable energy, precision farming, and the implementation of resilient crop varieties in agricultural practices helps mitigate the effects of climate change. Those policy steps, taken together, represent a holistic blueprint for the modernization of Punjab's agricultural marketing mechanism in an environment which fosters sustainability, economic resilience and equitable rural development.¹⁹

8. FINDINGS

Several major conclusions can be drawn from the present study which throws light upon the relation between policy of Agricultural Marketing and Sustainable Agricultural Development in the Punjab. While the current legal arrangement has played an important role in agricultural development, there are significant gaps and limitations in the available legal framework to effectively tackle modern issues such as the environmental and market-related. In many cases, existing laws and international guidelines are still mainly trade oriented, not focusing on sustainability and resilience to climate change and diversified farming systems. The research also indicates that the Agricultural Produce Market Committees (APMCs) and concerning agencies are facing a weakness in infrastructural conditions, admin inefficiency, lack of transparency along with unjust national and regionalisation-based applications of APMC policies.²⁰

Adverse environmental effects of the continued paddy-wheat cropping system have resulted in the loss of water resources, deterioration of soil properties, degradation of biodiversity, and escalation of the Green House Gases emission which have jeopardized the sustainability of the agriculture economy in Punjab. The study also points to major market inefficiencies affecting the competitiveness of the market (poor competition, reliance on intermediaries, unequal access to digital marketing platforms, lack of post-harvest infrastructures, etc.) that affect farmers' income and bargaining power in the market. Moreover, the vulnerability of small and marginal farmers is high as they have less access to institutional credit, and a lack of legal protection and access in emerging institutional contractual and digital markets in agriculture. The results confirm that there is a need to incorporate further elements such as environmental sustainability, digital governance, market transparency, climate adaptation and farmer's welfare in the framework of agricultural marketing of Punjab if balanced agricultural development and long-term rural prosperity are to be ensured.²¹

9. RECOMMENDATIONS

The outcome of this study makes us believe that imposing better regulation of agriculture marketing in Punjab should come through a well-thought-out legal and institutional amendment program that takes into account three points of economic growth, environmental sustainability and the well-being of farmers. One of the major suggestions is to modernize the Agricultural Produce Market Committee (APMC) by introducing greater transparency, accountability and efficiency in the proceedings. Market committees should be digitalized as it will reduce corruption, enhance service delivery, and build trust in regulated

¹⁷ Organisation for Economic Co-operation and Development (OECD), *Policies for the Future of Farming and Food* (2023).

¹⁸ S S Acharya and N L Agarwal, *Agricultural Marketing in India* (6th end, Oxford & IBH 2019).

¹⁹ S S Acharya, *Agricultural Marketing in India* (4th end, Oxford & IBH 2004).

²⁰ R Chand, 'e-Platform for National Agricultural Markets' (2016) 51(28) *Economic and Political Weekly* 15.

²¹ Punjab State Farmers' Commission, *Annual Report on Sustainable Agriculture in Punjab* (2022).

markets when it comes to licensing, fee collection, auction processes and records management. Also needed in the governance framework are regular audits and independent regulatory supervisory bodies, and an evaluation of market institutions to assess their performance.²²

A National level policy on crop diversification with legal backing to diversify away from over dependence on the wheat-paddy cropping pattern in Punjab is another important recommendation. Financial incentives, assured procurement, subsidies for less water consuming crops like maize, pulses, oilseeds, fruits, and vegetables, crop insurance and technical support, through legal instruments, should be provided. Groundwater use, soil degradation and biodiversity loss would be minimized and sustainable agriculture would be promoted with such statutory support. The establishment of the Minimum Support Price (MSP) framework should be tightened by statutory measures to ensure transparent and open procurement processes, timely payments for farmers, broader areas of coverage and enabling farmers who are small and marginal to benefit from the scheme as well. Policies on procurement should begin to include the selection of crops that are both climate resilient and environmentally sustainable and promote sustainable agriculture without losing security of farmers' incomes.

Rather, the Government should inculcate green marketing by providing incentives to the farmers for organic farming, natural farming, integrated pest management system, residue management system, water-saving irrigation system, using renewable energy and carbon sequestration technology. Rewards for environmental outcomes that are measurable can also improve farm income and environmental sustainability. Moreover, the lack of digital transparency needs to be addressed by encouraging the use of the National Agriculture Market (e-NAM), adopting blockchain in supply chains, establishing Artificial Intelligence (AI) based market intelligence networks, and setting up real-time market price information systems. Support for digital literacy programmes and the rural Internet should be enhanced to guarantee participation of small and marginal farmers in electronic agricultural markets.²³

Punjab should also pass and implement policies related to climate response measures in agriculture, which will include water conservation, soil health protection, climate adaptation, sustainable land use and environmental impact assessment in agricultural marketing policies. Such laws should make it legally binding for sustainable usage of resources and encourage sustainable agriculture and farming practices in relation to climate effects. Last but not least, farmer participation in the decision-making process in regulation should also be institutionalized, by increasing representation of farmer's organization, Farmer Producer Organization (FPO), cooperatives, agricultural experts, women farmers, and civil society institutions in any policy making and market governance process. An approach that features participatory decision making will help in enhancing transparency, empowering the accountability mechanism and maintain the sensitivity of agricultural marketing reforms to the changing socio-economic and the environmental requirement of Punjab's farming community.²⁴

10. CONCLUSION

The overall conclusion of the present study is that agricultural marketing regulation is one of the significant contributing causes to the sustainable development of Punjab's agriculture sector, as the goals of sustenance, interest of the farmers, environmental protection and economic development closely inter-depend each other. The agricultural marketing system has been important to ensure stable agricultural production in Punjab through the Agricultural Produce Market Committee (APMC) while providing protection to the farmers from the fluctuation of the agricultural market with the help of Minimum Support Price (MSP) procurement system. But a series of structural and legislative gaps have been revealed by alterations in socio-economic circumstances, the impacts of climate change, technological progress and growing ecological degradation which need urgent policy intervention. An ecology-nether-ecological-social justice framework emphasizing only market efficiency will not lead to long-term agricultural sustainability.

In order to achieve both market efficiency and farmer protection, a legal context in which the market is transparent and clear, while offering protection against exploitation, unfair trade practices and income insecurity to farmers is needed. Rather than undermining institutional protection, market liberalization should foster a meaningful competitive market, innovative solutions for the digital market and the private provision of services, all in the safe and secure hands of regulatory oversight. Enhancing market institutions, price discovery, widening access to digital agriculture platforms and strengthening market linkages of small and marginal farmers are key pillars for inclusive agricultural development. At the same time, environmental issues like groundwater depletion, loss of soil fertility, biodiversity loss, climate change risk to agriculture etc. should be embedded in agricultural marketing regulations, and not perceived as policy issues. Moreover, the study highlights the importance of embedding sustainability in the agriculture marketing legislation via binding and enforceable commitments advocating for more diversified agriculture, better use of water, climate smart agriculture, carbon reduction, renewable energy consumption, and more environmentally-friendly agricultural farming. Agricultural policies and laws need to align with India's goal under the United Nations Sustainable Development Goals (SDGs) and constitutional mandates on farming, and environmental principles. Going forward, a holistic socio-legal solution is required in Punjab, in the form of a clear mechanism of institutional accountability, coordination between regulatory bodies, and digital governance, and an active involvement of farmers in policy-making and regulating the markets.

Therefore, a balanced regulatory framework is needed to promote sustainable agricultural development in Punjab which must foster economic and resource efficiency, environmental preservation, and social justice. These reforms will help boost farmers' livelihoods and local economies, foster national food security, bolster climate resilience, and contribute to sustainable agricultural governance. The experience of Punjab can be a valuable guideline for other States of India, that are looking to bring their agricultural marketing laws up to date doing in a way that rights of the farmers are not being taken away from them and yet they are protected while ensuring that nature will sustain to the benefit of future generations.

²² Food and Agriculture Organization, *The State of Food and Agriculture 2022* (FAO 2022).

²³ Food and Agriculture Organization, *Climate-Smart Agriculture Sourcebook* (2nd end, FAO 2024).

²⁴ World Trade Organization, *Agreement on Agriculture* (1995).

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