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BRICS – challenge or opportunity for the West?

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BRICS and the New Geopolitical Arena of Food Security:

From National Strategies to Systemic Contestation

BRICS a nowa geopolityczna arena bezpieczeństwa żywnościowego.

Od strategii narodowych do rywalizacji systemowej

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BRICS and the New Geopolitical Arena of Food Security: From National Strategies to Systemic Contestation

Food security has evolved from a technical challenge into a multidimensional strategic concern shaped mainly by demographic pressures, climate change and geopolitical tensions. This article analyses the food security strategies of BRICS countries (key grains and oilseeds), focusing on major players (China, Russia, India, Brazil), and examines how national priorities are gradually converging into collective initiatives. It advances the hypothesis that, while still rooted in domestic imperatives, BRICS policies are progressively forming systemic mechanisms that could challenge the Western-led food security order. Methodologically, the study relies on literature review, official reports and BRICS summit and policy documents, highlighting both the potential and limitations of BRICS' emerging alternative framework for global food governance.

BRICS a nowa geopolityczna arena bezpieczeństwa żywnościowego. Od strategii narodowych do rywalizacji systemowej

Bezpieczeństwo żywnościowe, przez długi czas definiowane głównie w kategoriach produkcji, dostępu i stabilności cen, w ostatnich dekadach nabrało nowego, wielowymiarowego znaczenia. Artykuł analizuje strategie krajów BRICS w zakresie bezpieczeństwa żywnościowego (kluczowe ziarna i uprawy oleiste), ze szczególnym uwzględnieniem Chin, Rosji, Indii oraz Brazylii, i wskazuje, w jaki sposób priorytety narodowe sukcesywnie przechodzą w inicjatywy kolektywne. Postawiono hipotezę, że strategie BRICS, choć nadal zakorzenione w imperatywach krajowych, stopniowo tworzą mechanizmy systemowe mogące stanowić alternatywę dla zachodniego modelu bezpieczeństwa żywnościowego. Analiza opiera się na literaturze przedmiotu, oficjalnych raportach oraz dokumentach szczytów i strategii BRICS, uwypuklając zarówno potencjał, jak i ograniczenia nowo powstającego alternatywnego systemu zarządzania globalnym bezpieczeństwem żywnościowym.

Introduction

Food security, long defined primarily in terms of production, access, and price stability, has acquired a new, multidimensional significance. Demographic pressures, climate change, disruptions in global supply chains, and geopolitical tensions have transformed food-related issues into both development challenges and instruments of international policy. BRICS countries play an increasingly important role in this context, gradually shaping their own mechanisms of influence within the global food system through national strategies and emerging collective initiatives. BRICS states are key players in global food production, representing approximately 59% of the world's population, 35% of agricultural land, 39% of freshwater resources, and 42% of agricultural output. In 2024, they accounted for 19.5% of the global trade volume in agricultural commodities.[1] Their relatively low-cost production and high productivity highlight the potential for further growth and influence in global food markets.[2] The bloc's recent expansion in 2024–2025, including the introduction of a partner country status, strengthens South-South cooperation, diversifies economic interests, and positions BRICS as a counterweight to Western-centric institutions.

The aim of this article is to analyse the food security strategies of BRICS countries, with particular focus on China, Russia, India, and Brazil, and to evaluate the extent to which these policies evolve toward collective action and strategic competition *vis-à-vis* Western-led food security frameworks. To situate this analysis, the study adopts a theoretical framework rooted in the concept of food geopolitics. Within this perspective, staple crops are not merely economic commodities but instruments of strategic influence and national sovereignty.[3] Access to, control over, and

1 BRICS Agriculture Working Group, *Joint Declaration of the 15th Meeting of BRICS Ministers of Agriculture*, April 17, 2025, accessed August 15, 2025, https://infobrics.org/en/document/168/.

2 Hugo Jacques Kennedy et al., "BRICS+ Agri-Sector: Strategic Overview and Policy Recommendations," *International Trade: Working Paper* 4 (2025).

3 Nima Taheri Hosseinkhani, *Global Food Security amid Geopolitical Tensions and Climate Risk: Trade Governance and Adaptive Strategies*, SSRN preprint, 2025, https://papers.ssrn.com/sol3/Delivery.cfm/5448314.pdf?abstractid=5448314&mirid=1.

management of critical food resources shape power relations at regional and global levels, providing states with tools to project influence, stabilise domestic regimes, and navigate systemic rivalries. By applying this framework, the analysis positions BRICS food security strategies at the intersection of domestic imperatives, international politics, and strategic positioning, addressing a gap in the literature regarding the geopolitical dimensions of global food governance. The study examines national priorities alongside multilateral initiatives, reflecting aspirations for coordinated international action, while recognising the influence of domestic imperatives, historical legacies, and structural asymmetries within the bloc. The article advances the hypothesis that, while still strongly rooted in national imperatives, BRICS food security policies are gradually evolving towards forms of systemic cooperation and strategic competition *vis-à-vis* the Western-led food security order. The study seeks to assess both the potential and the limitations of this trajectory, as well as the challenges the bloc faces in shaping an alternative framework for global food governance.

Methodology

The analysis is based on a literature review, official reports, BRICS summit and policy documents, as well as national strategic documents and policy papers. Reports from international organisations (Food and Agriculture Organization of the United Nations – FAO, U.S. Department of Agriculture – USDA) were also utilised. The analysis focuses on key staple crops, rather than the full range of agricultural production or livestock, reflecting their central role in national food security strategies and strategic reserves. Within staple crops, cereals and oilseeds are the two categories most directly tied to food security strategies. Cereals (rice, wheat, maize, barley, and millet) are the backbone of national reserves designed to stabilise prices and shield populations from supply shocks. Oilseeds (including soybeans and sunflower, and from 2025, palm oil, following Indonesia's accession) play a dual role as sources of edible oils and protein-rich animal feed. The study focuses mainly on the strategies of China, Russia, India, and Brazil as they constitute the most important players. China and India are agricultural giants for whom grain self-sufficiency is a cornerstone of national stability. Brazil is a key exporter, and Russia utilises grain as a strategic asset and diplomatic instrument. The selection of these

countries allows for highlighting the diverse approaches to food security within the BRICS bloc and understanding how these national priorities translate into collective initiatives. The time frame of the analysis covers the conceptual evolution of food security since the 1980s, through agricultural reforms in individual countries (e.g., the Green Revolution in India), up to the latest BRICS documents and actions from 2024–2025.

While BRICS countries are pivotal actors in global agricultural production, comparative analyses remain limited due to heterogeneous data availability, differing national reporting standards, and existing literature's focus on selected staple crops or individual countries. This study addresses these gaps by systematically examining food security strategies across key BRICS members and assessing emerging patterns of systemic cooperation and geopolitical engagement.

Food security in the literature: multidimensional challenges and emerging trends

The concept of food security has evolved considerably over the last decades, both in academic discourse and in international policy frameworks. Initially, FAO defined food security as a situation "when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life." This definition emphasised humanitarian and access-oriented dimensions, focusing primarily on availability and consumption, without explicitly addressing temporal stability or systemic resilience. From the 1990s onwards, however, the interpretation of this definition expanded. The 1996 World Food Summit retained the same wording, but within broader summit documents, FAO began to highlight the need for sustained access throughout the year, recognising that food security cannot be achieved if availability fluctuates seasonally or under conditions of conflict and crisis.[4] By the early 2000s, FAO publications increasingly stressed the importance

4 Food and Agriculture Organization, *Rome Declaration on World Food Security*, November 13, 1996, accessed August 15, 2025, https://www.fao.org/4/w3613e/w3613e00.htm; Food and Agriculture Organization, *World Food Summit Plan of Action*, November 13, 1996, accessed August 15, 2025, https://www.fao.org/4/w3613e/w3613e00.htm.

of four interrelated pillars of food security: availability, access, utilisation and stability.[5] Stability, absent from the original definitions, became central, reflecting a shift towards understanding food security as both a structural and strategic challenge rather than merely a humanitarian concern. This evolution underscores that while the lexical content of FAO's definitions remained largely unchanged, the conceptual scope broadened significantly. Contemporary interpretations now include systemic, temporal, and geopolitical dimensions. Disruptions – whether caused by conflict, climate shocks, or global market volatility – can compromise food security even when local availability is sufficient. This expansion laid the groundwork for viewing food not only as a basic human need but also as a strategic instrument in global politics, particularly relevant in the context of competition between BRICS countries and Western powers.

Similar shifts in the conceptualisation of food security have also been observed in academic literature. Early studies focused primarily on undernutrition and access in developing countries, highlighting immediate humanitarian concerns, particularly among vulnerable populations such as women and children.[6] Over the past decades, scholarly discourse has increasingly recognised that food security is not only a matter of supply or nutritional adequacy but a multidimensional phenomenon influenced by socio-economic, political, and environmental factors.[7] From the mid-2000s onwards, research began integrating systemic and temporal dimensions, examining how conflicts, climate variability, and global market dynamics affect the stability of food availability and access.[8] More recent

5 Food and Agriculture Organization, *The State of Food Insecurity in the World 2001*, Rome, 2001, accessed August 15, 2025, https://www.fao.org/4/y5650e/y5650e00.pdf.

6 Per Pinstrup-Andersen, "Food Security: Definition and Measurement," *Food Security* 1 (2009): 5–7.

7 Simon Maxwell and Marisol Smith, "Household Food Security: A Conceptual Review," in *Household Food Security: Concepts, Indicators, Measurements: A Technical Review*, ed. Simon Maxwell and Timothy R. Frankenberger (New York / Rome: UNICEF / International Fund for Agricultural Development, 1992): 1–72; Christopher B. Barrett, "Measuring Food Insecurity," *Science* 327, no. 5967 (2010): 825–828.

8 Maria Cristina Tirado et al., "Climate Change and Food Safety: A Review," *Food Research International* 43 (2010): 1745–1765; Hugh Charles Jonathan Godfray et al.,

works have emphasised the strategic dimensions of food security. Food is increasingly framed as a tool of influence and a potential source of international tension, linking traditional humanitarian perspectives with contemporary concerns about resilience, governance, and global supply chain management.[9] Another area of debate addresses land use, globalisation, and food system dynamics, which illustrate how macro-structural vulnerabilities intersect with conflict-driven crises to impact food security on a global scale.[10] Corporate concentration is also a key issue. As Jennifer Clapp demonstrates, a small number of firms dominating seeds and agrochemicals can shape markets, technology, innovation agendas, and policy frameworks, affecting food system outcomes at multiple levels.[11] Current research also emphasises the complex interplay between climate change, conflict, and pandemic-related disruptions. The COVID-19 pandemic and Russia's invasion of Ukraine in 2022 significantly influenced the field, prompting analyses of supply chain vulnerabilities, grain exports, and the use of food as a geopolitical lever.[12]

Building on this multidimensional understanding, recent scholarly debate increasingly situates food security within the broader framework of geopolitics, highlighting how staple crops, particularly cereals, can

"Food Security: The Challenge of Feeding 9 Billion People," *Science* 327, no. 5967 (2010): 812–818.

9 Derek Headey and Fan Shenggen, *Reflections on the Global Food Crisis: How Did It Happen? How Has It Hurt? And How Can We Prevent the Next One?* (Washington: International Food Policy Research Institute, 2010), accessed August 15, 2025, https://cgspace.cgiar.org/bitstreams/ae207582-8ed2-4f7c-865b-297c76e970ce/download.

10 Eric F. Lambin and Patrick Meyfroidt, "Global Land Use Change, Economic Globalization, and the Looming Land Scarcity," *Proceedings of the National Academy of Sciences* 108, no. 9 (2011): 3465–3472; Saturnino M. Borras Jr. et al., "Towards a Better Understanding of Global Land Grabbing: An Editorial Introduction," *Journal of Peasant Studies* 38, no. 2 (2011): 209–216.

11 Jennifer Clapp, "The Problem with Growing Concentration and Power in the Global Food System," *Nature Food* 2 (2021): 404–408.

12 Christophe Béné et al., "A Global Assessment of the Impacts of COVID-19 on Food Security," *Global Food Security* 31 (2021); Lin Faqin et al., "The Impact of Russia-Ukraine Conflict on Global Food Security," *Global Food Security* 36 (2023).

function as strategic instruments in international relations.[13] Geopolitics, traditionally understood as the study of spatial power and state interests in the global arena, now encompasses multidimensional factors including resource control, supply chain resilience, and economic interdependence.[14] In this context, cereals such as wheat, rice, and maize are not merely sources of nutrition but also tools for shaping political influence, stabilising domestic regimes, and projecting power abroad. State strategies often employ grain reserves, export controls, and bilateral supply agreements as instruments of leverage, enabling countries to negotiate economic or political concessions while mitigating exposure to external shocks. This approach aligns with the notion of geopolitical food security, where access to staple commodities becomes intertwined with national sovereignty and strategic positioning. Controlling surplus grain stocks or securing foreign production sites can function as both a defensive mechanism, insulating domestic markets from volatility, and an offensive instrument, allowing states to influence partner countries' policies or regional stability. Consequently, the study of BRICS food security strategies benefits from a dual perspective, integrating traditional humanitarian and development-oriented analyses with geopolitical considerations that foreground cereals as both economic and strategic assets.

Food security strategies across BRICS states

In China, food security has long been a core component of the national development agenda, closely tied to social stability and state legitimacy. Since the 1980s, agricultural reforms and market liberalisation have enabled significant gains in productivity and reductions in hunger. These efforts culminated in the 1996 White Paper on food security, which articulated self-sufficiency in staple grains – wheat, rice, and maize – as the cor-

13 Ally Mkumbukiy et al., "Agrifood Systems' Resilience for Sustainable Food Security amid Geopolitical Tensions: A Systematic Literature Review," *Frontiers in Sustainable Food Systems* 9 (2025).

14 Klaus Dodds, *Geopolitics: A Very Short Introduction*, 3rd ed. (Oxford: Oxford University Press, 2019).

nerstone of China's approach.[15] However, rapid economic growth and urban expansion have steadily reduced cultivated land, while the increasing share of lower-grade farmland undermines overall productivity.[16] Climate change further amplifies these risks. Frequent floods and droughts in key grain-producing provinces have prompted major investments in climate-resilient crop varieties, water-saving irrigation, and early warning systems.[17] The Chinese government initially responded by promoting mechanisation and the dissemination of technology. Later, it undertook large-scale investments in irrigation, biotechnology, and rural infrastructure to encourage population retention in the countryside. These measures are codified in the red line of 120 million hectares of arable land, a non-negotiable threshold institutionalised in the Basic Farmland Protection System (BFPS), which safeguards farmland from conversion and enforces permanent boundaries to maintain both land quantity and quality.[18] China's current strategic objectives rest on four interrelated pillars. First, maintaining stable domestic production of staple grains at 650–700 million tons annually, supported by subsidies, minimum purchase price schemes, and mechanisation. Second, modernising agriculture through digitalisation, robotics, and precision farming to counteract labour shortages and land constraints. Third, revitalising the seed industry through major investments in biotechnology and breeding programmes to reduce reliance on foreign inputs, particularly soybeans and oilseeds, amid trade frictions with the United States. Fourth, expanding storage capacity and state reserves to buffer external shocks and stabilise domestic prices.[19] Recent policy documents indicate that food

15 State Council of the People's Republic of China, *White Paper – The Grain Issue in China* (Beijing, 1996), accessed August 15, 2025, https://www.iatp.org/sites/default/files/Grain_Issue_in_China_White_Paper_The.htm.

16 Xu Haomin, "Current Challenges and Potential Solutions of China's Agricultural Economy," *SHS Web of Conferences* 154 (2023).

17 Xie Wei et al., "Climate Change Impacts on China's Agriculture: The Responses from Market and Trade," *China Economic Review* 62 (2020).

18 Wang Nan et al., "Basic Farmland Protection System in China: Changes, Conflicts and Prospects," *Agronomy* 13, no. 3 (2023).

19 State Council of the People's Republic of China, *Food Security in China* (Beijing, 2019), accessed August 15, 2025, http://english.scio.gov.cn/2019-10/14/content_75300394.htm.

security will continue to rely primarily on domestic production and technological upgrading, complemented by moderate imports. China also highlights a more outward-oriented dimension. Its global strategy includes overseas farmland investments, securing agricultural supply chains, promoting exports, and sharing technology, management practices, and capital to modernise the sector.[20] In this way, China's food security policy has evolved into a comprehensive strategy that balances domestic self-reliance with an assertive international presence.

In India, food security has remained a central pillar of development since independence. The memory of recurring famines during the colonial era shaped a strong emphasis on state-led intervention in agriculture and food distribution. A turning point came with the Green Revolution of the 1960s and 1970s, which transformed India from a food aid-dependent country into a largely self-sufficient producer of staple grains. This increase in production was largely achieved through high-yielding varieties of wheat and rice, coupled with large-scale investments in irrigation, fertilisers, and rural infrastructure.[21] Over time, India institutionalised food security through the Public Distribution System (PDS) and the Food Corporation of India. These institutions procured grains from farmers at a guaranteed minimum support price (MSP) and distributed subsidised food to vulnerable populations. The system has undergone repeated reforms, most notably with the National Food Security Act of 2013, which guarantees the right to food access for approximately two-thirds of the population.[22] These programmes reflect India's understanding of food security not only as an agricultural challenge but also as an instrument of social justice and political legitimacy.[23] India's contemporary food security strategy rests on three main pillars. First, self-sufficiency in staple grains is supported

20 Zhong Funing and Zhu Jing, "Food Security in China from a Global Perspective," *Choices* 32 (2017): 1–5.

21 Prabhu Pingali, "Green Revolution: Impacts, Limits, and the Path Ahead," *Proceedings of the National Academy of Sciences* 109, no. 31 (2012): 12302–12308.

22 National Food Security Act, 2013, accessed August 15, 2025, https://nfsa.gov.in/portal/nfsa-act.

23 Jean Drèze and Reetika Khera, "Recent Social Security Initiatives in India," *World Development* 98 (2017): 555–572.

by procurement, MSP schemes, and state-managed reserves. Second, the government increasingly emphasises nutritional security through crop diversification, biofortification, and the promotion of pulses and millets, recognising that calorie sufficiency alone does not address widespread malnutrition.[24] Third, resilience to shocks is a priority amid climate change, population growth, and market volatility. Investments in drought-resistant crop varieties, improved irrigation efficiency, and digital platforms for crop insurance and market access illustrate this approach.[25] Importantly, India's food security strategy has an international dimension. As one of the world's largest grain producers, India positions itself not only as a guardian of domestic self-sufficiency but also as a potential provider of food security to other developing countries. Recent exports of rice and wheat, particularly to the Middle East and Africa, exemplify this dual role.[26] India's approach combines production-oriented policies, redistributive welfare mechanisms, and growing international engagement. Unlike China's technology-driven model, India emphasises social protection, food subsidies, and smallholder resilience while gradually incorporating sustainability and nutrition into its agenda. This distinct trajectory reflects both India's democratic political economy and its ambition to act as a responsible player in global food governance.

In Russia, food security has undergone significant transformation over the past two decades. The country shifted from an import-dependent system in the 1990s to a model in which the state actively promotes agricultural self-sufficiency and global export leadership. A turning point came with the 2010 Food Security Doctrine, which established

24 *The State of Food and Agriculture 2021* (Rome: Food and Agriculture Organization, 2021), accessed August 15, 2025, https://openknowledge.fao.org/server/api/core/bitstreams/7e6336f8-d90d-4936-805b-f612a218f0c8/content.

25 Ananya Ajatasatru et al., "Economy-Wide Impact of Climate Smart Agriculture in India: A SAM Framework," *Economic Structures* 13, no. 4 (2024).

26 However, India's periodic export bans on wheat and rice – often imposed to stabilise domestic prices – have generated tensions in global markets and highlighted the balancing act between domestic imperatives and international responsibilities. Debashis Roy and Bidyut Roy, *India's Agriculture and Food Exports: Opportunities and Challenges* (New Delhi: Institute for Pioneering Insightful Research & Edutech / Bloomsbury India, 2022).

quantitative benchmarks for key commodities, including 95% self-sufficiency in grains, 85% in meat, and 90% in dairy products.[27] This doctrine framed food security not only as an economic necessity but also as a matter of national sovereignty and resilience against external pressures. A decisive moment occurred in 2014, when Russia imposed counter-sanctions on Western food imports following sanctions linked to the annexation of Crimea. This policy, known as import substitution, incentivised domestic production and reshaped agricultural structure. The state increased subsidies, credit lines, and rural infrastructure support, leading to rapid expansion in grain, poultry, and oilseed production.[28] Today, Russia's food security strategy rests on three main pillars. First, self-sufficiency in staples, including grain, meat, sugar, and vegetables, with particular emphasis on expanding production in the Black Earth Region and Siberia. Second, the sector is increasingly digitised, and policies promote seed sovereignty and reduced reliance on Western inputs, such as fertilisers and machinery. Third, agricultural exports, particularly wheat, are treated as strategic assets. Russian wheat exports serve as instruments of soft power and geopolitical leverage, especially in the Middle East, North Africa, and Sub-Saharan Africa, where they stabilise food-deficient countries.[29] The Food Security Doctrine of 2020 reinforces this approach. While maintaining domestic sufficiency, it highlights the importance of strengthening Russia's position in global food markets and ensuring the stability of grain exports, even under sanctions or logistical disruptions. This links food production directly to broader foreign policy goals, reinforcing the concept of agricultural power as an element of sovereignty.

27 USDA Foreign Agricultural Service, "Food Security Doctrine Adopted," November 11, 2010, accessed February 16, 2026, https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Food%20Security%20Doctrine%20Adopted%20_Moscow_Russian%20Federation_2-11-2010.pdf.

28 William M. Liefert and Olga Liefert, "Russia's Development as a Top Player in World Grain Trade," in *Russia's Role in the Contemporary International Agri-Food Trade System*, ed. Stephen K. Wegren and Frode Nilssen (Cham: Palgrave Macmillan, 2022).

29 Maximilian Gabelli, "An Analysis of Russian Wheat Grain Export as a Tool in Its Contemporary Foreign Policy" (master's thesis, Harvard Extension School, 2019).

Brazil plays a very important role in the global food system. It is the world's largest tropical agricultural producer and one of the top exporters of soybeans, as well as beef, poultry, sugar, and coffee. Brazil's food security strategy is shaped by its domestic conditions and historical experiences. The first pillar of this strategy is the agribusiness export model, consolidated since the 1970s through state-backed modernisation and innovations led by Brazilian Agricultural Research Corporation (Embrapa). It spearheaded what is often called the tropical agriculture revolution, turning once infertile savannah soils into some of the world's most productive farmland. Advances in soil management, biotechnology, and crop adaptation enabled Brazil to become a leading agricultural power. However, this expansion also drives deforestation, land concentration, and social tensions.[30] The second pillar focuses on domestic food access. The *Fome Zero* (Zero Hunger) initiative, launched in 2003, linked food to social rights. Through cash transfers, institutional food purchases, and support for family farming, the programme significantly reduced hunger. Progress, however, remains uneven and vulnerable to political changes. Ensuring stable food access for the population continues to be a challenge.[31] Brazil's food security strategy thus reflects a tension between its role as a breadbasket for the world and its ongoing task of securing equitable domestic food access. While the country leverages agricultural exports for economic growth and global competitiveness, it also seeks to strengthen social protection and reduce domestic vulnerability.

30 Eliseu Alves, "EMBRAPA: Institutional Building and Technological Innovations Required for Cerrado Agriculture," in *Development for Sustainable Agriculture: The Brazilian Cerrado*, ed. Akio Hosono, Carlos Magno Campos da Rocha, and Yutaka Hongo (Palgrave Macmillan, 2016), accessed August 15, 2025, https://link.springer.com/chapter/10.1057/9781137431356_7.

31 José Graziano da Silva, coord., *Fome Zero to Zero Hunger: A Global Perspective* (Rome: Food and Agriculture Organization, 2019), accessed August 15, 2025, https://openknowledge.fao.org/server/api/core/bitstreams/8274525f-da59-43e4-81d9-c87cb666410a/content.

Table. Staple crop production, trade and strategic objectives of BRICS countries in 2023

Country	Staple crops (% of world production)	Role in global/regional trade
1	2	3
China	rice – 26% (net ex.) wheat – 17.1% (net im.) maize – 23.3% (net im.) barley – 1.3% (net im.) millet – 8.5% (net ex.) soybeans – 5.2% (net im.) sunflower – 5.1% (net ex.) palm oil – n.a. (net im.)	China is the world's largest agricultural producer, leading in rice (first globally), wheat (first), and maize (second). It is also the largest net food importer, particularly of soybeans, maize, wheat, and palm oil. Rice and millet are exported mainly to Asian and African markets, while sunflower products are sent to neighbouring countries. Imports rely heavily on Brazil, the US, and Argentina for soybeans, and the Black Sea region for maize and barley. Wheat imports come primarily from Australia, followed by Canada, France, the US, Kazakhstan, and Russia. China's dual role makes it both an agro-power and a key driver of global food markets, with its demand shaping international trade flows and price dynamics
India	rice – 25.8% (net ex.) wheat – 13.8% (net ex.) maize – 3.1% (net ex.) barley – 1.3% (net im.) millet – 42.7% (net ex.) soybeans – 4% (net im.) sunflower – 0.6% (net im.) palm oil – n.a. (net im.)	India is the world's second-largest agricultural producer. It ranks second in rice and wheat production, exporting rice mainly to Africa and Asia, while wheat exports are smaller and concentrated in South Asia and Africa, depending on domestic availability. India is the leading producer of millet, promoted under its nutri-cereals initiative. On the import side, it depends heavily on Indonesia and Malaysia for palm oil and on Argentina, Brazil, and Ukraine for sunflower oil. India is therefore both a major grain supplier and a critical importer of edible oils, influencing food security beyond its borders
Russia	rice – 0.01% (net ex.) wheat – 11.5% (net ex.) maize – 1.3% (net ex.) barley – 14% (net ex.) millet – 1.3% (net ex.) soybeans – 1.7% (net im.) sunflower – 30.9% (net ex.) palm oil – n.a. (net im.)	Russia is one of the world's leading agricultural producers, particularly for wheat (third globally) and barley (first). It is a major net exporter of wheat, barley, maize, millet, and sunflower. Its grain shipments are crucial for the Middle East and North Africa, including Egypt, Turkey, and Algeria, while sunflower oil exports target India, China, and the EU, strengthening Russia's influence in global vegetable oil markets. Geopolitical factors, such as sanctions and export restrictions, have redirected trade flows towards Asia, Africa, and BRICS partners, reinforcing Russia's role as a strategic supplier and price-setter
Brazil	rice – 1.3% (net ex.) wheat – 1% (net im.) maize – 10.6% (net ex.) barley – 0.02% (net im.) millet – 0% (net im.) soybeans – 40.1% (net ex.) sunflower – 0.1% (net im.) palm oil – n.a. (net im.)	Brazil is a major global agricultural producer, leading the world in soybeans production and ranking third in maize. The country is a significant net exporter of these crops, supplying China, the EU, and other emerging economies with soybeans, while maize exports reach South America, Africa, and Asia. Brazil's dual role – ensuring domestic food security while dominating key export markets – makes it a pivotal player in global food supply, with production levels and trade policies having substantial impact on commodity prices and international supply chains

Strategic objectives	
4	
Domestic:	ensure self-sufficiency in staple grains, expand strategic reserves of wheat, rice, maize, and edible oils, maintain price stability to prevent social unrest, reduce reliance on imported soybeans through alternative protein sources, invest in agricultural modernisation, enhance rural revitalisation and farmers' incomes, increase climate resilience, and manage water scarcity.
Global:	use import demand as leverage in trade negotiations (especially with the US, Brazil, and Russia), secure diversified suppliers, expand overseas farmland investments, set global standards in food governance, strengthen South-South cooperation, build strategic agricultural partnerships within BRICS, and utilise reserves and financial instruments to buffer global price shocks and project stability
Domestic:	safeguard self-sufficiency in rice and wheat; promote millet as a nutritional and climate-resilient crop; stabilise food prices via buffer stocks and public distribution systems; reduce dependence on imported edible oils by boosting domestic production; enhance farmer incomes through subsidies, minimum support prices, and rural development programmes; invest in irrigation, storage, and supply chain infrastructure.
Global:	consolidate India's position as a leading rice exporter and emerging millet champion; secure diversified sources of edible oils via long-term trade partnerships; expand agricultural diplomacy within South-South cooperation frameworks, particularly with Africa; use food exports as a tool for regional influence
Domestic:	ensure self-sufficiency and stable production of wheat, barley, maize, and sunflower; maintain strategic grain reserves to buffer against shocks; stabilise food prices and secure rural incomes; modernise agricultural infrastructure; invest in climate-resilient practices and irrigation to adapt to regional climatic variability.
Global:	consolidate Russia's position as a leading exporter, especially to MENA, Asia, and BRICS partners; use export policies and strategic reserves to influence global commodity prices; expand agricultural investments and partnerships in developing countries; strengthen collaboration within BRICS and other South-South frameworks; leverage food exports as a geopolitical instrument amid Western sanctions; diversify trade routes and partners to reduce reliance on European markets
Domestic:	ensure self-sufficiency and stabilise domestic food prices to maintain affordable access; invest in agricultural modernisation, mechanisation, and logistics; promote sustainable farming practices and climate-resilient production for soybeans and maize; enhance rural development and farmer incomes to support social stability.
Global:	consolidate Brazil's role as the world's leading soybeans exporter and a major maize supplier; maintain strong trade relations with China, the EU, and other emerging economies; leverage agricultural exports as tools of geopolitical and economic influence; actively participate in BRICS and South-South cooperation frameworks to shape global food governance

Country	Staple crops (% of world production)	Role in global/regional trade
1	2	3
Republic of South Africa	rice – 0% (net im.) wheat – 0.3% (net im.) maize – 1.3% (net ex.) barley – 0.02% (net im.) millet – 0% (net im.) soybeans – 0.7% (net ex.) sunflower – 1.2% (net im.) palm oil – n.a. (net im.)	South Africa is a major agricultural producer in the southern part of the continent, with maize as the main staple crop. The country exports maize mainly to neighbouring nations, while wheat and other cereals are largely imported from the EU, Canada, and the US. Sunflower and soybeans production support both domestic consumption and regional trade. RSA's agriculture plays an important role in Southern African food security
Egypt	rice – 0.7% (n.a.) wheat – 1.2% (net im.) maize – 0.6% (net im.) barley – 0% (net im.) millet – 0% (net ex.) soybeans – 0% (net im.) sunflower – 0% (net ex.) palm oil – n.a. (net im.)	Egypt is a key agricultural producer in North Africa, with wheat and maize critical for domestic food security. It is the largest wheat, maize, and rice importer in Africa, sourcing wheat primarily from Russia, Ukraine, and France, and maize mainly from Ukraine, Brazil, and Argentina. Despite limited production, Egypt exports millet and sunflower to neighbouring countries. Its agriculture is constrained by land and water availability but remains strategically important for national and regional food security
Ethiopia	rice – 0.02% (net im.) wheat – 0.7% (net im.) maize – 0.8% (net im.) barley – 1.7% (net im.) millet – 3.5% (net ex.) soybeans – 0% (net im.) sunflower – 0% (net ex.) palm oil – n.a. (net im.)	Maize, teff, and sorghum are central to Ethiopia's domestic food security. Teff, a staple unique to Ethiopia, is increasingly exported. The country is largely self-sufficient in cereals, although droughts or climate shocks occasionally require imports. Most maize and sorghum are consumed domestically, with small regional exports. Ethiopia's agricultural sector supports rural livelihoods and regional food stability, while its limited surplus makes it a minor but strategically important exporter in East Africa
Indonesia	rice – 6.7% (net ex.) wheat – 0% (net im.) maize – 1.6% (net im.) barley – 0% (net im.) millet – 0% (net im.) soybeans – 0% (net im.) sunflower – 0% (net im.) palm oil – 59% (net ex.)	Indonesia is a net importer of staple grains, particularly wheat and maize, due to high domestic consumption and limited suitable agricultural land. Wheat is mainly imported from Australia, the US, and Canada, while rice comes from Thailand and Vietnam. At the same time, Indonesia is the world's leading palm oil exporter, which serves both domestic and international markets. The agricultural sector plays a central role in national food security and significantly influences regional markets in Southeast Asia

Strategic objectives	
4	
Domestic:	ensure self-sufficiency and maintain stable production and prices; modernise agricultural infrastructure; improve irrigation, storage facilities, and climate-resilient farming practices to mitigate droughts and water scarcity; support rural development and farmer incomes to strengthen social cohesion and food security.
Global/regional:	consolidate RSA's position as the primary maize supplier in Southern Africa; expand trade partnerships with neighbouring countries to enhance regional food security; leverage agricultural exports to strengthen influence in African food markets; actively participate in BRICS and South-South cooperation frameworks
Domestic:	maintain stable production to feed a growing population; invest in irrigation, water management, and land reclamation; promote millet and sunflower as climate-resilient crops; stabilise food prices.
Global/regional:	secure diversified imports; strengthen trade relations with key exporters; engage actively in regional cooperation frameworks in MENA to support food security; enhance Egypt's role in shaping regional food governance and market stability initiatives
Domestic:	ensure self-sufficiency and stable production of maize, teff, and sorghum; develop strategic grain reserves to buffer against climate shocks and regional conflicts; invest in irrigation, soil conservation, and climate-resilient practices; support smallholder farmers; stabilise food prices.
Global/regional:	engage in regional food security initiatives in East Africa; secure international partnerships and development assistance; use agricultural production to enhance Ethiopia's role in regional food stability; diversify trade and aid relationships to reduce vulnerability
Domestic:	maintain stable rice and staple production to meet domestic demand; develop strategic reserves to mitigate supply shocks; invest in irrigation, agricultural modernisation, and climate-resilient farming; support farmer incomes; reduce dependence on imported wheat.
Global/regional:	consolidate position as a leading global palm oil exporter; secure diversified wheat suppliers; participate in regional food security initiatives; strengthen influence in Southeast Asia's agricultural trade

Country	Staple crops (% of world production)	Role in global/regional trade
1	2	3
Iran	rice – 0.4% (net im.) wheat – 1.7% (net im.) maize – 0.02% (net im.) barley – 2% (net im.) millet – 0% (net im.) soybeans – 0% (net im.) sunflower – 0.1% (net im.) palm oil – n.a. (net im.)	Iran is a major agricultural producer in the Middle East, with wheat and barley as staple crops critical for domestic food security. Due to high consumption and climatic constraints, it remains largely dependent on imports, sourcing wheat and barley mainly from Russia, Kazakhstan, and Ukraine. Despite its import reliance, Iran exports limited quantities of cereals and pulses to neighbouring countries. Its agricultural sector is strategically important for sustaining domestic food security and contributes to regional supply dynamics
United Arab Emirates	rice – 0% (net im.) wheat – 0% (net im.) maize – 0% (net im.) barley – 0% (net im.) millet – 0% (net im.) soybeans – 0% (net im.) sunflower – 0% (net im.) palm oil – n.a. (net im.)	The UAE is a small but strategically significant country in the Persian Gulf. It relies entirely on imports for staple grains, particularly wheat and rice, due to limited arable land and high consumption. Wheat is mainly imported from Russia, the US, and Australia, while rice comes from India, Thailand, and Pakistan. Despite limited domestic production, the UAE acts as a regional re-export hub, distributing grains and other food products across the Middle East. Its dependence on global markets makes it sensitive to price fluctuations
Vietnam	rice – 5.4% (net ex.) wheat – 0% (net im.) maize – 0.4% (net im.) barley – 0% (net im.) millet – 0% (net im.) soybeans – 0% (net im.) sunflower – 0% (net im.) palm oil – n.a. (net im.)	Vietnam is a major regional producer and exporter of rice, which is both its staple crop and central to domestic food security. Rice is supplied to domestic markets and international destinations such as the Philippines, Malaysia, and parts of Africa. The country imports wheat, maize, soybeans, and edible oils to meet domestic demand, especially for animal feed and processed foods. Rice exports are a key economic asset and a tool for regional influence in agricultural trade

Source: author's own elaboration. Information on trade roles and strategic objectives is derived from national agricultural strategies, policy papers and official reports. Data on staple crop production, global shares, and net trade positions were calculated based on statistics: Food and Agriculture Organization, "Crops and Livestock Products", 2023, accessed August 15, 2025, www.fao.org/faostat/en/#data/TCL

Strategic objectives	
4	
Domestic:	enhance self-sufficiency in staple grains; invest in irrigation, water management, and climate-resilient farming to mitigate arid conditions; improve productivity and reduce vulnerability to global market fluctuations; support rural development and farmer incomes.
Global/regional:	secure diversified suppliers; participate in regional food security and agricultural cooperation initiatives in the Middle East and Central Asia; leverage limited exports to strengthen regional influence; develop strategic partnerships; use reserves and trade policies to buffer against global disruptions
Domestic:	ensure stable food supply through imports and strategic reserves; invest in storage, logistics, and food security infrastructure; promote limited domestic production using advanced technologies; stabilise prices to protect consumers.
Global/regional:	secure diversified suppliers; leverage strategic ports and logistics to act as a regional food hub; participate in regional food security and trade cooperation frameworks; use imports, reserves, and financial instruments to buffer against global price shocks
Domestic:	ensure food security through rice (the country's staple crop) self-sufficiency, improve farmers' incomes and rural livelihoods via support for smallholders and access to modern technologies, modernise agriculture through mechanisation, irrigation and research, enhance climate resilience and disaster preparedness for staple crop production.
Global:	maintain position as a key rice exporter in Southeast Asia and selected African markets, use rice exports as a tool to strengthen regional influence, participate in regional food security initiatives and South-South cooperation as a reliable supplier

Towards systemic cooperation within BRICS: aspirations and emerging directions

The trajectories of BRICS states reveal significant variation in how food security is embedded within domestic agendas. China and India, as agricultural giants, prioritise grain self-sufficiency as a cornerstone of national stability. Brazil places its agri-export model at the heart of economic growth and global competitiveness. Russia treats grain both as an economic pillar and a diplomatic instrument. South Africa, structurally import-dependent, seeks to offset vulnerabilities by acting as a regional gateway to African markets. Despite these divergences, a common thread emerges: food security in these countries is never merely a technical issue of production and distribution. It is a core element of political legitimacy, regime stability, and developmental sovereignty. This domestic embeddedness has clear external implications. Countries that treat food as a strategic asset look beyond national borders to secure supply chains, diversify partners, and shield themselves from external shocks. Policies such as China's overseas farmland investments, Brazil's development of export corridors, or Russia's grain diplomacy in Africa are national strategies first and foremost but they inevitably influence the international arena. Even South Africa leverages its position to anchor BRICS agricultural engagement in Africa.

Structural asymmetries within the bloc further reinforce this outward orientation. BRICS includes both net exporters (Brazil, Russia, partly India) and net importers (China, South Africa), creating complementarities that encourage coordination and collective bargaining. These interdependencies provide fertile ground for institutionalisation while simultaneously motivating the bloc to challenge the Western-led liberal food regime, which is often criticised for entrenched inequalities and vulnerability to geopolitical disruption. Consequently, BRICS food agendas evolve along a dual axis. First, they are defensive, designed to protect domestic stability against volatility, sanctions, or climate-related shocks. Second, they are offensive, aiming to advance alternative frameworks, trade mechanisms, and narratives that position the bloc as a normative actor in global food governance. These two axes are mutually reinforcing: domestic vulnerability often translates into collective initiatives, while shared institutional platforms amplify national strategies internationally. BRICS states'

initiatives are not driven by altruism but by the convergence of particular interests, which, when coordinated, create the appearance and effect of systemic alternatives.

Food security initially entered the BRICS agenda indirectly, through discussions on trade, development, and South-South cooperation. Early summit statements framed food as part of a wider developmental agenda, without dedicated mechanisms.[32] Since 2010, the bloc has gradually institutionalised its approach. A growing number of initiatives link national strategies to collective frameworks, reflecting both domestic imperatives and systemic ambitions. At the core of this emerging architecture are a few flagship mechanisms that constitute the institutional backbone of BRICS cooperation on food security:

– BRICS Agriculture Working Group (AWG) serves as the main technical platform for coordinating agricultural policies and food security agendas. Operating since 2010, it prepares multi-year action plans. The latest (2025–2028) prioritises food security, sustainable production, innovation, agri-finance, and facilitating trade.[33] While the AWG indicates a willingness to institutionalise cooperation, its effectiveness is contested. Heterogeneous agricultural systems, divergent national priorities, and limited enforcement mechanisms may reduce outcomes to symbolic declarations. Its impact will depend on translating action plans into concrete financial instruments, common standards, and resilient supply chains;

– BRICS Agricultural Research Platform (ARP), initiated by India, is a virtual network for cooperation in agricultural science, technology, and innovation. It promotes South-South knowledge exchange, collaborative projects, and capacity-building in areas such as sustainable crop improvement, climate adaptation, biotechnology, and smallholder technology transfer.[34] So far, its activities have been limited to pilot research projects, workshops, networking events, and the development of shared databases. The platform lacks a dedicated funding mechanism

32 BRICS, *BRICS Joint Statement on Global Food Security*, Ekaterinburg, 2009, accessed August 15, 2025, https://worldjpn.net/documents/texts/BRICS/20090616.D2E.html.

33 BRICS Agriculture Working Group, *Joint Declaration*.

34 BRICS, *Joint Declaration of BRICS Ministers of Agriculture*, New Delhi, 2016, accessed August 15, 2025, http://www.brics.utoronto.ca/docs/160923-agriculture.pdf.

comparable to the EU's Horizon Europe programme. While ARP represents a significant step toward institutionalised scientific cooperation within BRICS, its long-term impact depends on whether it can evolve from pilot initiatives into the production of joint research outputs, harmonised standards, and scalable technological solutions capable of addressing both domestic and global agricultural challenges;

– BRICS Grain Exchange (BGE), initiated by Russia in 2024, aims to establish a dedicated platform for trading grain commodities within BRICS.[35] The platform has the potential to reshape global agricultural trade by increasing transparency, improving price discovery, and enhancing the bargaining power of member states. However, its success depends on extensive infrastructure development, robust regulatory frameworks, and effective coordination among diverse national agricultural systems. While the initiative has received strong political backing, practical implementation may take several years. The BGE's long-term impact will hinge on its ability to integrate logistical networks, harmonise trading standards, and provide a reliable mechanism that ensures both domestic food security and efficient intra-BRICS trade.

This institutional backbone is complemented by numerous political declarations, thematic initiatives, and networking platforms that extend cooperation beyond the core mechanisms. Ministerial communiqués and joint declarations – most recently the 2025 statement prioritising food security, sustainable production, and land restoration – provide regular opportunities to articulate shared ambitions and align national narratives. Similarly, initiatives such as the BRICS Partnership for Land Restoration demonstrate a commitment to linking food security with broader developmental and environmental objectives.[36] At the same time, more specialised formats, including the BRICS Working Group for the Research of Competition Issues in Food Markets, illustrate how

35 Ahmed Adel, "Establishing Grain Exchange Advances BRICS Integration," *BRICS*, July 8, 2025, accessed August 15, 2025, https://infobrics.org/en/post/51725/.

36 Brazilian Ministry of Agriculture and Livestock, "BRICS Agriculture Working Group Discusses Food Security, Electronic Certification and Land Restoration," April 15, 2025, accessed August 15, 2025, https://www.gov.br/agricultura/en/news/brics-agriculture-working-group-discusses-food-security-electronic-certification-and-land-restoration.

the bloc experiments with *ad hoc* mechanisms to address specific vulnerabilities, from price volatility to geopolitical disruptions in grain trade.[37] Parallel to these state-led efforts, BRICS+ forums, agricultural investment summits, and civil society dialogues create informal coordination channels, fostering networks among policymakers, researchers, and private actors. While these initiatives lack the institutional weight of AWG, ARP, or the Grain Exchange, they expand the cooperative landscape and reinforce BRICS's emerging role in global food governance.

Beyond these institutional and thematic initiatives, BRICS states pursue complementary efforts that extend their influence across the Global South and strengthen systemic resilience in food security. Within the BRICS framework, South-South cooperation in food and agriculture, carried out bilaterally and trilaterally, particularly by China and Brazil, includes technology transfers, capacity-building programmes, and development assistance to partner countries. While these projects are not always formally branded as BRICS initiatives, they complement the bloc's institutional and thematic mechanisms, reinforcing its image as a champion of the Global South and projecting influence in global food governance.[38] Similarly, the New Development Bank (NDB), established in 2015, although not exclusively focused on agriculture, has increasingly financed projects in rural infrastructure, irrigation, and logistics, directly supporting the resilience of food systems across member states.[39] Complementing these multilateral efforts, China's Belt and Road Initiative has promoted the Food Silk Road since 2015. This initiative facilitates overseas farmland investments, agricultural infrastructure, and bilateral trade in commodities, while also projecting Chinese standards in logistics, quality management, and trade

37 BRICS Working Group for the Research of Competition Issues in Food Markets, "The BRICS Food Working Group on Food Markets Met in Cairo," February 11, 2025, accessed December 1, 2025, https://bricscompetition.org/ournews/the-brics-food-working-group-on-food-markets-met-in-cairo.

38 Ismahane Elouafi and Lindiwe Majele Sibanda, "China Can Help Ensure Future Food Security," *China Daily*, November 11, 2024, accessed August 15, 2025, https://www.chinadaily.com.cn/a/202411/11/WS673140fda310f1265a1cc8a7.html.

39 New Development Bank, *Annual Report 2023: Financing for Sustainable Development* (Shanghai, 2023), accessed August 15, 2025, https://www.ndb.int/wp-content/uploads/2025/03/NDB_AnnualReport2023.pdf.

governance.[40] Although primarily a Chinese initiative, its scale and integration with BRICS members' supply chains indirectly enhance the bloc's visibility and influence in global food governance.

Conclusions

The analysis of BRICS food security strategies reveals significant diversity in national approaches, reflecting historical, economic, and political contexts. China and India prioritise self-sufficiency in staple grains to ensure domestic stability and regime legitimacy, while Brazil leverages agricultural exports to strengthen economic growth and global competitiveness. Russia uses grain not only as an economic asset but also as a geopolitical tool, whereas South Africa, structurally import-dependent, seeks to mitigate vulnerabilities through regional engagement. Despite these differences, common threads emerge. In all BRICS countries, food security extends beyond production and distribution; it is closely tied to political legitimacy, sovereignty, and developmental ambitions. This domestic embeddedness drives states to project influence internationally, through mechanisms such as South-South Cooperation, the NDB, the Food Silk Road, and BRICS institutional frameworks like the AWG, ARP, and BGE. At the systemic level, BRICS initiatives indicate an embryonic model of collective governance in food security. Flagship mechanisms and complementary projects facilitate coordination, knowledge sharing, and trade, suggesting a gradual move towards a structured, alternative framework that challenges the Western-led food security regime. However, structural asymmetries, divergent national priorities, and limited enforcement mechanisms constrain the depth and effectiveness of such cooperation.

The strategic dimension of food security is increasingly evident. Staple crops, especially cereals, function as instruments of influence, allowing states to stabilise domestic markets, negotiate economic or political concessions, and enhance their geopolitical standing. BRICS food security policies thus operate along dual axes: defensive, to protect domestic populations from shocks, and offensive, to project influence and shape international norms. In conclusion, while BRICS does not yet constitute

40 Cecilia Tortajada and Zhang Hongzhou, "When Food Meets BRI: China's Emerging Food Silk Road," *Global Food Security* 29 (2021).

a fully unified alternative system, its coordinated initiatives reflect deliberate efforts to combine national protection with systemic projection. Understanding these strategies is essential to assessing both the potential and limitations of BRICS as an emerging actor in global food governance, capable of influencing supply chains, trade structures, and geopolitical dynamics in the decades ahead.

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