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ИССЛЕДОВАТЕЛЬСКИЕ СТАТЬИ

Evolution of Cooperation among BRICS Countries in Global Climate Governance: From UNFCCC to the Paris Agreement

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Abstract: In the complex world of international negotiations, nation-states often navigate a spectrum of political relationships, from alliances and partnerships to competition and rivalry. Despite their diverse backgrounds and interests, the BRICS countries collectively constitute a significant proportion of global greenhouse gas emissions. Drawing upon the principles of neoliberal institutionalism, this study delves into the origins of the BRICS cooperation mechanism and its impact on climate cooperation among its member states. Our analysis traces the climate policies of BRICS nations since the inception of the UNFCCC in 1992, taking into consideration factors such as their level of economic development, environmental vulnerability, and the broader international political context. We argue that these three factors primarily shape the dynamics of alliance and partnership within BRICS regarding climate governance, although underlying competition may also influence collaborative efforts. This study aims to stimulate further theoretical discourse on the formation of political alliances within the context of global climate governance.

Keywords: climate governance, international climate negotiation, BRICS, alliance formation

In less than a decade, the term “BRICS” has evolved from an investment concept to denoting a group of major powers playing pivotal roles in international affairs (Downie, Williams 2018). Conceptually, the BRICS mechanism can be construed as an international regime, defined as a set of principles, norms, rules, and decision-making procedures shaped by the collective preferences of involved actors within a specific domain of international relations (Krasner 1982). Such international regimes often facilitate cooperation, engendering a self-perpetuating dynamic and exerting in-

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fluence over the participating countries once established (Keohane 1984). The "regime" concept thus underscores both the presence of factors uniting the BRICS nations in the first place and the independent impact of the established BRICS mechanism in sustaining collaboration among its member-states.

The rise of the BRICS countries is fundamentally reshaping the global governance landscape in the field of climate change, given their status as the world's largest emitters attributable to substantial production and consumption of fossil fuels. However, scant attention has been paid in scholarly discourse to the BRICS countries' role in global climate governance, particularly their capacity to influence it post the 2015 Paris climate agreement. Despite being classified as emerging economies, the BRICS nations comprise both developing and developed countries, such as Russia, listed in Annex 1 of the United Nations Framework Convention on Climate Change (UNFCCC). Previously, climate negotiation stances tended to bifurcate along developed and developing country lines; however, the BRICS nations have progressively exhibited converging positions, underscoring their unique significance in this context. Consequently, there is considerable merit in studying and comprehending the cooperation and competition dynamics among BRICS countries within the domain of climate governance. Our investigation reveals that they share similar economic and environmental circumstances, alongside politically aligned objectives. While differences persist, potentially contributing to uncertainty regarding their future prospects, our emphasis remains on understanding the factors driving their cooperation, with the aforementioned elements serving as the foundation for BRICS collaboration within a defined timeframe.

The article examines the evolution of the relationships among the five BRICS countries within international climate negotiations, drawing upon their statements at significant climate conferences and their joint statements as primary sources. Moreover, the article conducts an analysis of the factors contributing to both cooperation and potential conflicts within the BRICS regarding climate issues. It posits that the climate stances of BRICS nations are increasingly converging due to shared objectives, leading them to endeavor to reconcile differences and prevent conflicts through the mechanisms provided by BRICS. Lastly, the article presents several viable recommendations as remedial measures to address identified challenges.

The evolution of climate negotiations among BRICS countries

When the BRIC concept initially surfaced, relevant interactions among its member countries were relatively limited. It was not until the onset of the global financial crisis in 2008 that the BRIC nations commenced formal engagements and first mentioned the topic of climate change in the declarations of the 2009 and 2010 summits. With the inclusion of South Africa into the bloc in 2011, the BRICS countries entered a phase marked by concerted efforts to address climate change. Subsequent leaders' summits held from 2012 to 2015 played pivotal roles in facilitating the successful conclusion of the Paris Agreement.

"Embryonic" stage: From UNFCCC to Kyoto Protocol (1992–2005)

Since the signing of the UNFCCC, there has been heightened global focus on climate governance. During this period, although the formal establishment of the BRICS coalition had not yet occurred, five of the nations that would later form the grouping were already emerging as significant players in climate negotiations. Notably, the BASIC countries, comprising Brazil, China, India, and South Africa, engaged in frequent interactions and played a central role in laying the groundwork for subsequent climate change negotiations (Hallding et al. 2013). Additionally, Russia gradually adopted a more favorable stance on climate issues during this period.

As rapidly developing countries, Brazil, China, India, and South Africa have engaged in collaboration on global climate governance long before the establishment of the formal BRICS framework. As early as 1992, preceding the United Nations Conference on Environment and Development in Rio de Janeiro, these four countries endeavored to coordinate their positions to safeguard the common interests of developing nations (Zuo, Jiang 2017). Throughout subsequent climate conferences and negotiations, the bloc has frequently participated under the banner of G77+China and has been vocal in denouncing agendas perceived as detrimental to the interests of developing countries (Hallding et al. 2013).

Despite being classified as a "BRIC" country since 2001, Russia's status as a developed country, particularly as an Annex 1 nation, warrants separate consideration. The shift in Russia's stance on climate issues has been pivotal for enhancing the collective influence of the BRICS countries. Initially, Russia maintained the belief that global warming would confer benefits upon its distinctive natural economic geography. However, as the 21st century unfolded, the frequency of natural disasters and subsequent incidents in Russia markedly escalated each year, many attributable to rising temperatures. For instance, future climate model projections indicated an augmentation in both the frequency and magnitude of extreme hydrological events in Russia due to climate change (Shiklomanov et al. 2007). Additionally, Russia has frequently experienced extreme heat or cold weather conditions, significantly impacting agricultural production and livelihoods (Dronin, Kirilenko 2011; Mokhov, Semenov 2016). As a result, Russia gradually recognized the gravity of the climate issue and ratified the Kyoto Protocol in 2004, a critical step for the Protocol's entry into force.

Engagement stage: implementation of the Kyoto Protocol (2005–2012)

Following the commencement of the first commitment period of the Kyoto Protocol (2008-2012)[1], subsequent climate conferences have failed to yield significant outcomes, particularly following the dampening of climate enthusiasm in developed

[1] There were two commitment periods under the Kyoto Protocol: the first commitment period, from 2008 to 2012; the second commitment period, from 2013 to 2020.

countries post the 2008 financial crisis. During this period, the BRICS countries initiated contacts, yet their positions remained divergent, undergoing a challenging phase of adjustment.

The discord between developing and developed nations reached a climax during the Copenhagen summit. Prior to the meeting, certain developed countries posited that if major developing nations were willing to compromise and assume greater obligations, other developing countries would no longer pose obstacles. Consequently, efforts were made to leverage those developing nations with the highest emissions, exerting pressure on China and India. However, during the summit, developing countries advocated for developed nations to lead by example through substantial emission reductions, yet the commitments made by developed countries fell short of the demands put forth by developing nations (Bailer, Weiler 2015). Progress on resolving this issue was sluggish during the conference, with developed nations failing to commit to significant emission reductions. Moreover, the issue of financial and technical assistance also remained unresolved. The resulting Copenhagen Accord of 2009, while not legally binding, was perceived as inequitable by developing nations due to its lack of emission reduction standards and quotas for developed countries, as well as its failure to address operational aspects such as the implementation of aid to developing nations. Additionally, Russia and certain developed nations announced their refusal to accept obligations under the second commitment period of the Kyoto Protocol, asserting that their participation in a post-2012 climate agreement hinged on the involvement of all major emitters, including the US and China (Andonova, Alexieva 2012). These countries looked towards a new bottom-up climate agreement inclusive of all parties. However, developing countries, led by China and India, favored an extension of the second commitment period of the Kyoto Protocol. So, while the climate issue featured prominently in the joint statement of the BRIC leaders' meeting in Yekaterinburg (2009)[2] and the second official BRIC leaders' meeting in Brasilia (2010)[3], with emphasis on the Common but Differentiated Responsibility (CBDR) principle, discussions surrounding the Kyoto Protocol were notably absent.

Following South Africa's accession in 2011, the BRICS Summits began to place greater emphasis on climate-related issues. In the Sanya Declaration, the BRICS countries underscored the significance of the global challenge posed by climate change and expressed support for the Cancún Agreement, advocating for the enhancement of outcomes under both the UNFCCC and the Kyoto Protocol[4]. During their fourth meeting in New Delhi in 2012, BRICS leaders pledged to contribute to global efforts aimed at combating climate change. They emphasized that developed country parties to the

[2] Joint Statement of the BRIC Countries' Leaders. June 16, 2009. *BRICS.* URL: http://www.brics.utoronto.ca/docs/090616-leaders.html (accessed 10.02.2024).

[3] 2nd BRIC Summit of Heads of State and Government: Joint Statement. April 15, 2010. *BRICS.* URL: http://www.brics.utoronto.ca/docs/100415-leaders.html (accessed 10.02.2024).

[4] Sanya Declaration. April 14, 2011. *BRICS.* URL: http://www.brics.utoronto.ca/docs/110414-leaders.html (accessed 10.02.2024).

UNFCCC should provide increased financial, technical, and capacity-building assistance to developing countries to facilitate the implementation of mitigation measures tailored to the latter's national circumstances[5].

"Honeymoon" stage: promoting the Paris Agreement (2012–today)

After 2012, the conclusion of the first commitment period of the Kyoto Protocol prompted the BRICS countries to collectively pursue a new international climate agreement to supplant the Protocol. Concurrently, their cooperation began to exhibit greater substance.

The declarations issued at the meetings held in Durban and Fortaleza in 2013 and 2014 respectively began advocating for the formulation of a new protocol or a legally binding agreed-upon outcome by 2015[6]. This push was intensified by Russia's decision not to renew the second commitment period of the Kyoto Protocol, thereby heightening the BRICS countries' anticipation for a new international climate standard. Subsequently, in 2016, the Goa Declaration explicitly urged nations to sign the Paris Agreement, welcomed its entry into force, and called upon developed countries to adhere to its provisions[7].

In the months preceding the COP21 conference[8] in Paris in 2015, the BRICS countries intensified their efforts and introduced substantial new mechanisms for climate and environmental cooperation, moving beyond mere declarations. In April of that year, the inaugural BRICS Environment Ministers' Meeting convened in Moscow, endorsing the establishment of an international platform for sharing environmentally sound technologies to bolster public-private collaboration among BRICS nations (Zuo, Jiang 2017). Subsequently, in July, BRICS leaders convened for their seventh meeting, during which they underscored in their declaration the readiness of BRICS countries to address climate change both globally and domestically. They also pledged to promote a comprehensive, effective, and equitable agreement under the UNFCCC[9].

At COP21, the statements issued by the BRICS countries unequivocally underscored their collective commitment to shaping a fair and effective agreement amidst diverse political and economic contexts. China, Brazil, India, and South Africa all em-

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[5] Fourth BRICS Summit: Delhi Declaration. March 29, 2012. URL: http://www.brics.utoronto.ca/docs/120329-delhi-declaration.html (accessed 10.02.2024).

[6] BRICS and Africa: Partnership for Development, Integration and Industrialization: eThekwini Declaration. March 27, 2013. *BRICS*. URL: http://www.brics.utoronto.ca/docs/130327-statement.html (accessed 10.02.2024); The 6th BRICS Summit: Fortaleza Declaration. July 15, 2014. URL: http://www.brics.utoronto.ca/docs/140715-leaders.html (accessed 10.02.2024).

[7] 8th BRICS Summit: Goa Declaration. October 16, 2016. *BRICS*. URL: http://www.brics.utoronto.ca/docs/161016-goa.html (accessed 10.02.2024).

[8] After the UNFCCC, the parties to the treaty meet annually to discuss the further implementation of the treaty. COP21 was held in Paris, 2015. According to the agenda of climate negotiation, COP21 was another significant point after Copenhagen, for the parties had to agree on the institutional design, making a new agreement for 2020 and future climate actions.

[9] VII BRICS Summit: 2015 Ufa Declaration. July 9, 2015. *BRICS*. URL: http://www.brics.utoronto.ca/docs/150709-ufa-declaration_en.html (accessed 10.02.2024).

phasized the significance of upholding the CBDR principle. Additionally, they highlighted the imperative of regulating financial and technical assistance from developed countries to developing nations within the framework of the new agreement, and urged developed countries to fulfill their commitment to provide $100 billion per year in aid to developing countries before 2020[10]. From the perspective of developed nations, Russia actively advocated for supporting the endeavors of developing countries. It expressed intentions to utilize relevant mechanisms within the United Nations to furnish financial and other forms of assistance to these nations. Moreover, Russia unequivocally expressed its earnest desire to foster a new international climate agreement that would succeed the role of the Kyoto Protocol[11].

Broadly speaking, the BRICS countries demonstrated a remarkable level of coherence during COP21, transcending the traditional North-South divisions, and played a pivotal role in advancing the signing of the Paris Agreement. This collective effort stands as a significant contribution to international climate negotiations. Furthermore, in subsequent leaders' meetings, the BRICS countries continued to prioritize the implementation of the Agreement.

With the entry into force of the Paris Agreement, BRICS climate cooperation has transitioned into a phase of practical implementation characterized by a two-pronged approach. The first track involves annual leaders' meetings and high-level government gatherings aimed at providing overarching guidance for collaboration. Post-2016 BRICS declarations have addressed strategies for enhancing the implementation of the Paris Agreement and fostering climate cooperation within the BRICS framework. For instance, the Xiamen Declaration emphasized the need to bolster collaboration in clean and renewable energy, advocated for the establishment of the BRICS Energy Research Platform to sustain dialogue, and urged developed nations to honor their official development assistance commitments in a timely manner while increasing resources allocated to developing countries[12]. Similarly, discussions during BRICS Environment Ministers' Meetings frequently revolve around the deepening of sharing, exchange, promotion, and application of green technologies among BRICS nations.

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[10] Remarks of President Dilma Rousseff, President of the Federative Republic of Brazil, COP21 Leaders Event. *United Nations Climate Change.* November 30, 2015. URL: https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/cop21cmp11_leaders_event_brazil.pdf (accessed 10.02.2024); Work Together to Build a Win-Win, Equitable and Balanced Governance Mechanism on Climate Change: Speech by H.E. Xi Jinping, President of the People's Republic of China, at the Opening Ceremony of The Paris Conference on Climate Change. *United Nations Climate Change.* November 30, 2015. URL: https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/cop21cmp11_leaders_event_china.pdf (accessed 10.02.2024); Statement by Prime Minister at COP21 Plenary. *United Nations Climate Change.* November 30, 2015. URL: https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/cop21cmp11_leaders_event_india.pdf (accessed 10.02.2024); Statement By H.E. President Jacob Zuma to the Opening Session of the Paris Climate Change Conference. *United Nations Climate Change.* November 30, 2015. URL: https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/cop21cmp11_leaders_event_south_africa.pdf (accessed 10.02.2024).

[11] H.E. Mr. Vladimir V. Putin, President of Russian Federation, Statement made during the Leaders Event at the Paris Climate Change Conference - COP 21 / CMP 11. *United Nations Climate Change.* URL: https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/cop21cmp11_leaders_event_russia.pdf (accessed 10.02.2024). (In Russian).

[12] BRICS Leaders Xiamen Declaration. September 4, 2017. *BRICS.* URL: http://www.brics.utoronto.ca/docs/170904-xiamen.html (accessed 10.02.2024).

The second track entails project-focused collaboration facilitated through the New Development Bank (NDB). Since its establishment, the NDB has allocated approximately $32.8 billion towards project funding, including 13 clean energy projects, 4 environmental protection initiatives, and several sustainable infrastructure projects. Furthermore, additional 3 clean energy projects are currently under consideration[13]. Notably, in 2016, the NDB made its debut in the capital market by announcing the issuance of its inaugural green finance bond, valued at 3 billion RMB and with a maturity period of 5 years (Zuo, Jiang 2017). Moreover, in May 2022, the BRICS High-level Meeting on Climate Change convened, fostering comprehensive discussions among member countries. These deliberations resulted in a broad consensus on accelerating the transition toward low-carbon and climate-resilient economy, advancing the multilateral climate process, and bolstering solidarity and cooperation in addressing climate change.

In addition to multilateral endeavors, bilateral cooperation represents a significant avenue through which BRICS countries engage in climate collaboration, often yielding more targeted and feasible outcomes compared to multilateral initiatives (Ding 2014). Prior to the adoption of the Paris Agreement in 2015, China and India issued a joint statement on climate change in Beijing, reaffirming their staunch support for the Paris Conference and outlining plans to enhance bilateral cooperation and deepen technical exchanges[14]. China and Russia, through regular meetings between prime ministers, have reached numerous agreements on renewable energy, energy-saving technologies, and forest resource management. Bilateral cooperation is further advantageous as it allows for the utilization of specialized expertise tailored to each country's unique circumstances. For instance, a joint statement on climate change was issued between China and Brazil, with a particular focus on renewable energy, notably hydrogen electricity, and forest carbon sequestration[15]. Additionally, China and South Africa are collaborating on clean coal technologies, while Brazil and India have signed an environmental cooperation agreement. Furthermore, India is contemplating increased investment in renewable energy resource development in Russia and the Arctic region.

Contributing factors to climate cooperation among BRICS nations

Economically homogeneous member states within organizations are more inclined than heterogeneous counterparts to sustain a shared long-term focus and articulate more aligned positions. Moreover, concerning climate policy stances, countries

[13] Projects. *New Development Bank*. URL: https://www.ndb.int/projects/ (accessed 10.02.2024).

[14] Joint Statement on Climate Change between the Government of the People's Republic of China and the Government of the Republic of India. May 15, 2015. *Food and Agriculture Organization of the United Nations*. URL: https://faolex.fao.org/docs/pdf/chn144289.pdf (accessed 10.02.2024).

[15] Joint Statement on Climate Change between the Government of the People's Republic of China and the Government of the Federative Republic of Brazil. May 19, 2015. *Food and Agriculture Organization of the United Nations*. URL: https://faolex.fao.org/docs/pdf/bi-144460.pdf (accessed 10.02.2024).

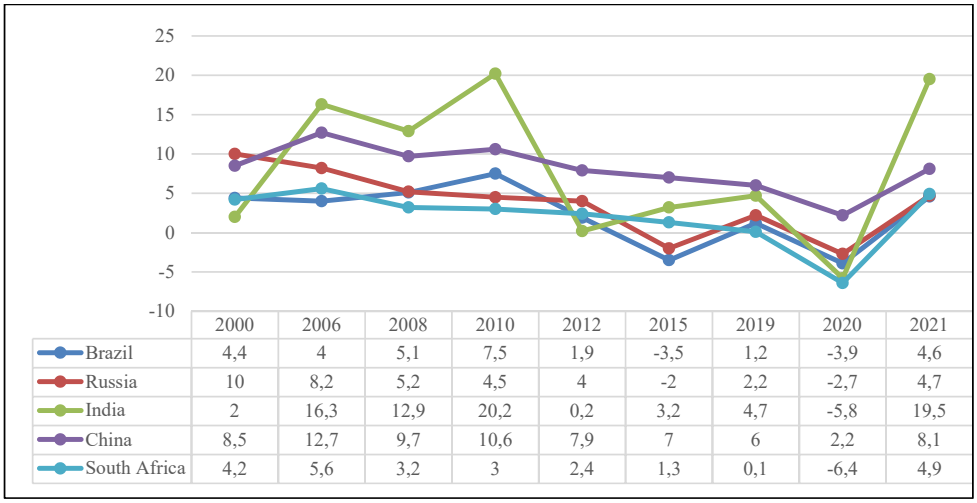
sharing common environmental vulnerabilities are likely to express relatively similar viewpoints (Genovese et al. 2022). Additionally, political considerations exert significant influence on a country's negotiation strategies. In a sense, the formation of the BRICS bloc is rooted in the international acknowledgment of the similar economic circumstances among their member states, all of which are categorized as emerging economies. Consequently, as emerging nations, they share common political objectives and confront comparable climate challenges. According to neoliberal institutionalism, states commonly project their interests onto international organization agendas and seek to address challenges through collaborative international efforts (Keohane, Victor 2016). Thus, the aforementioned factors constitute the foundational elements upon which alliances and partnerships among countries are forged.

This section elucidates that the economies of the BRICS countries exhibit traits of high growth, elevated energy consumption, and substantial emissions, largely hovering around the peak of carbon emissions. Being emerging nations, they anticipate a new international order that better accommodates their developmental needs. Simultaneously, the BRICS countries exhibit a collective awareness of global warming and a shared imperative to mitigate the impacts of climate change. In contrast to other developing nations, the BRICS countries serve as regional economic leaders and are impacted by climate change, although they do not rank among the most vulnerable nations. Consequently, they are more predisposed to engage in cooperative efforts to address climate change.

Parallel economic development paradigms among BRICS nations

In terms of economic development, the GDP of the BRICS countries has generally exhibited a trend of growth since 2000, albeit with fluctuations and periods of deceleration (see Figure 1). Notably, China and India have significantly outpaced other member states in terms of GDP growth. The global economic crisis of 2008 had a pronounced impact on all five countries, particularly Brazil and Russia, which heavily rely on primary product or raw material exports. Consequently, their GDP growth slowed post-2008, with some instances of negative growth observed, notably in 2015. The COVID-19 pandemic in 2020 led to recessions across the BRICS nations, although signs of recovery are now evident. Despite not experiencing economic development as rapidly as other members, South Africa remains a leading economic force in the African region.

Nevertheless, the industrialization process and economic development of BRICS countries remain heavily reliant on fossil energy sources. From 2011 to 2021, the primary energy consumption of BRICS nations demonstrated a consistent upward trajectory, mirroring the growth trends in their economies (see Figure 2). Notably, China and India have continued to escalate their energy consumption levels, significantly surpassing the global average. Presently, China constitutes over 26% of the world's primary energy consumption, positioning it as the largest energy consumer globally, with India ranking as the second-largest energy consumer in Asia.



	2000	2006	2008	2010	2012	2015	2019	2020	2021
Brazil	4,4	4	5,1	7,5	1,9	-3,5	1,2	-3,9	4,6
Russia	10	8,2	5,2	4,5	4	-2	2,2	-2,7	4,7
India	2	16,3	12,9	20,2	0,2	3,2	4,7	-5,8	19,5
China	8,5	12,7	9,7	10,6	7,9	7	6	2,2	8,1
South Africa	4,2	5,6	3,2	3	2,4	1,3	0,1	-6,4	4,9

Figure 1. BRICS GDP growth rate 2000–2021 (growth over previous year, %)
Source: compiled by the authors based on: BRICS Joint Statistical Publication 2016. URL: https://rosstat.gov.ru/free_doc/doc_2016/BRICS_ENG.pdf (accessed 10.02.2024); BRICS Joint Statistical Publication 2022. URL: https://rosstat.gov.ru/storage/mediabank/BRICS%20Joint%20Statistical%20Publication-2022.pdf (accessed 10.02.2024).

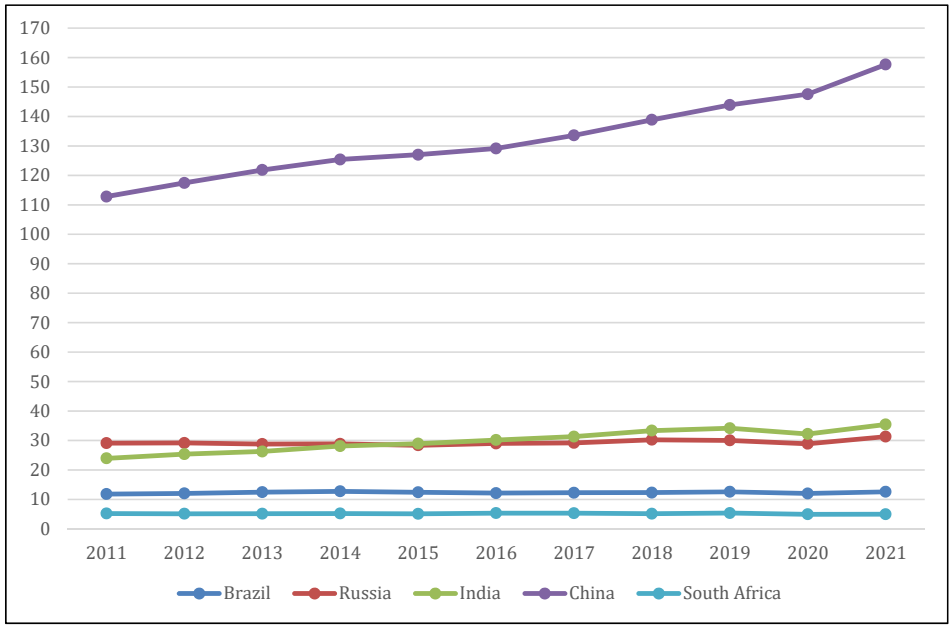


Figure 2. BRICS Primary Energy Consumption 2011–2021 (Exajoules)
Source: BP. 2022. BP Statistical Review of World Energy 2022, 71st edition. URL: https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2022-full-report.pdf (accessed 10.02.2024).

As energy consumption is reflected in emissions, it becomes evident that the BRICS countries collectively constitute a group of high-emission nations on a global scale. This phenomenon can be attributed in part to the international division of labor, whereby the BRICS countries have served as manufacturing centers for developed nations during certain periods. However, the development trajectories of the BRICS countries predominantly rely on fossil energy sources, consequently resulting in escalating emissions. According to statistics, emissions from BRICS countries in 2021 accounted for 45.9% of the world's total emissions[16]. Notably, emissions from China and India have shown a consistent upward trend over the years (see Figure 3), largely influenced by their Nationally Determined Contributions (NDC) targets. China is committed to achieving a peak in carbon emissions by 2030[17], suggesting that emissions will likely continue to rise in the coming years. India has proposed a long-term goal of achieving net zero emissions by 2070[18], implying that emissions may initially increase significantly before gradually declining later.

Compared to China and India, emissions growth in the other three BRICS countries has been slower. South Africa, for instance, has achieved negative emissions growth, aligning with its NDCs. However, fossil energy still accounts for more than 96% of its total energy consumption (Dai et al. 2016). South Africa aims to reach its Carbon Peak by 2025, with emission targets ranging from 398 to 510 Mt CO2[19], leaving considerable room for additional emissions. Brazil and Russia, having surpassed their carbon peaking phases, have maintained relatively stable emission levels. This trajectory bodes well for their respective targets of reducing emissions by 50% and 70% by 2030[20].

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[16] BP Statistical Review of World Energy 2022, 71st edition. 2022. *BP.* URL: https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2022-full-report.pdf (accessed 10.02.2024).

[17] China's Achievements, New Goals and New Measures for Nationally Determined Contributions. 2021. *NDC Registry, United Nations Climate Change.* URL: https://unfccc.int/sites/default/files/NDC/2022-06/China%E2%80%99s%20Achievements%2C%20New%20Goals%20and%20New%20Measures%20for%20Nationally%20Determined%20Contributions.pdf (accessed 10.02.2024).

[18] India's Updated First Nationally Determined Contribution Under Paris Agreement. 2022. *NDC Registry, United Nations Climate Change.* URL: https://unfccc.int/sites/default/files/NDC/2022-08/India%20Updated%20First%20Nationally%20Determined%20Contrib.pdf (accessed 10.02.2024).

[19] South Africa First Nationally Determined Contributions under the Paris Agreement. 2021. *NDC Registry, United Nations Climate Change.* URL: https://unfccc.int/sites/default/files/NDC/2022-06/South%20Africa%20updated%20first%20NDC%20September%202021.pdf (accessed 10.02.2024).

[20] The Federative Republic of Brazil Paris Agreement Nationally Determined Contribution. 2022. *NDC Registry, United Nations Climate Change.* URL: https://unfccc.int/sites/default/files/NDC/2022-06/Updated%20-%20First%20NDC%20-%20%20FINAL%20-%20PDF.pdf (accessed 10.02.2024); Nationally Determined Contribution of the Russia Federation. 2020. *NDC Registry, United Nations Climate Change.* URL: https://unfccc.int/sites/default/files/NDC/2022-06/NDC_RF_eng.pdf (accessed 10.02.2024).

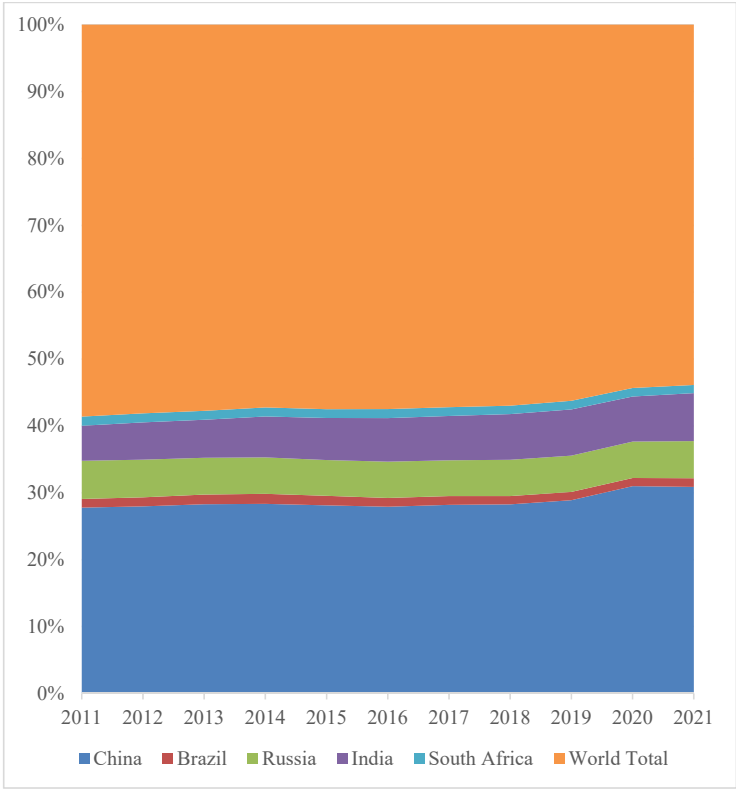

Figure 3. BRICS CO2 Emissions Compared to the World Total 2011-2021 (%)
Source: BP. 2022. BP Statistical Review of World Energy 2022, 71st edition. URL: https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2022-full-report.pdf (accessed 10.02.2024).

Aligning strategic and political objectives

Despite numerous transformations, international relations continue to be significantly shaped by great power politics, underscoring the pressing need for emerging powers to assert greater influence on the international stage to sustain developmental trajectories. The shared identity of the BRICS nations as emerging powers informs their policy paradigms and discourse, aimed at delineating a model that resonates with the requirements of the developing world (Kiprizl, Köstem 2022). The BRICS mechanism serves as a crucial strategic foundation for Russia. Positioned as newcomers within the global geopolitical landscape, the BRICS countries, particularly China and India, assume pivotal roles in advancing the transition towards a new international order.

As a rising global power, China is often perceived as a challenger to the prevailing Western-centric international order, thus engendering perceptions of competition among certain Western nations. Faced with such competition, China recognizes the importance of forging alliances with a broad spectrum of developing countries, particularly other emerging economies. The BRICS bloc comprises five nations with

the greatest developmental potential within their respective regions. Collaborative efforts among these nations can bolster China's influence in the international arena and expand its developmental opportunities. Conversely, the other four BRICS countries stand to benefit from aligning with China's economic trajectory under the BRICS mechanism. Notably, China's economy dwarfs that of the other four nations, with its GDP nearly doubling the collective GDP of the rest of the BRICS countries[21]. Despite the challenges posed by the COVID-19 pandemic, China's economic momentum has remained robust, reinforcing its role as a key driver of global economic growth.

Russian case is more special. The nation aims to reclaim its status as a great power by actively engaging in global politics. In the 21st century, climate governance has assumed heightened significance globally, particularly as the United States has consistently displayed unsatisfactory and negative attitudes toward this issue. Russia's proactive involvement in climate governance serves as a crucial strategy to offset its strategic disadvantages relative to the West. While disparities in development levels and models lead to divergent views on climate governance among Russia and other BRICS countries, adherence to the Common but Differentiated Responsibilities (CBDR) principle can serve as a bridge for these differences. The BRICS mechanism holds strategic importance for Russia, serving as a cornerstone for the nation's reintegration into international affairs and amplification of its voice. Managing relations with China and India, core members of BRICS, necessitates a dual approach: regional engagement with the two countries, and global engagement within the BRICS framework. Russia expresses enthusiasm for participating in BRICS cooperation, yet potential impediments stemming from diverse identities may arise. Addressing this requires other BRICS nations to comprehend Russia's position and actively foster its enhanced involvement within the mechanism.

Moreover, India aspires to bolster its overall national prowess through BRICS collaboration, while Brazil and South Africa aim to transition gradually from regional powers to global players through cooperative efforts.

Escalating threat of climate change

In addition to comparable economic development, all BRICS countries also confront significant climate challenges. While these challenges may not be as severe as those faced by the most climate-vulnerable nations, they nonetheless result in direct loss of life and property, as well as hinder agricultural development, consequently impacting industry and trade.

In BRICS countries, extreme weather events are increasingly common, resulting in both aridification in dry regions and flooding disasters in humid areas. Northeastern, northern, and northwestern China are experiencing worsening drought conditions,

[21] World Development Indicators. *The World Bank*. URL: https://datacatalog.worldbank.org/search/dataset/0037712/World-Development-Indicators (accessed 10.02.2024).

while in South Africa drought is intensifying across its entire territory. Since 1970, Southern Africa has witnessed more frequent, severe, and prolonged droughts (Richard et al. 2001), leading to substantial economic losses and heightened food insecurity in the region. India has observed increased monsoon failures, resulting in heightened precipitation uncertainty that impacts agricultural development and exacerbates income inequality between urban and rural areas (Dagdeviren et al. 2021). Additionally, Russia's forests are increasingly susceptible to wildfires due to elevated temperatures, while Brazil's rainforests face drought risks due to shifting precipitation patterns.

Moreover, as a consequence of global warming, glaciers in the Himalayas and Tibetan Plateau are rapidly melting, with Russia's permafrost zone also being affected. The Himalayan glaciers are diminishing swiftly due to climate change, which disrupts water availability, affects biodiversity, and the global climate system itself, with attendant environmental and social ramifications. These changes may exacerbate uncertainty regarding water supplies and agricultural production across Asia as a whole (Xu et al. 2009). Additionally, according to the International Permafrost Association's International Polar Year Thermal State of Permafrost (TSP), ground temperatures measured in both existing and new boreholes in Russia have exhibited notable warming trends over the past two to three decades, resulting in permafrost thawing (Romanovsky et al. 2010).

The dynamics of intra-BRICS competition

The rising power of the BRICS is now at the center of the debate regarding the future of global governance. Nonetheless, there are arguments positing that political, economic, and strategic differences among the BRICS outweigh their shared interests, presenting significant challenges to the cohesiveness of the alliance (Bruetsch, Papa 2013; Luckhurst 2013). These "high-politics" differences may also affect BRICS cooperation on "low-politics" issues, including climate governance. Examples include the persistent North-South divide, disputes over the meaning of sovereignty, and disparities in energy trade balance.

Remaining differences in economic development

Climate governance comprises two critical facets: mitigation and adaptation. A recent study found that "mitigation" is a predominant topic of discussion, appearing 534 times between 1995 and 2019, whereas "adaptation" is mentioned far less frequently, with only 116 references (Allan, Bhandary 2022). The discourse surrounding mitigation reveals a stark contradiction between the Global North and the Global South, while there is also considerable debate concerning the need to pay more attention to adaptation.

Efforts aimed at reducing carbon emissions and bolstering carbon sinks fall under the umbrella of mitigation, which entails incentivizing cleaner economic activities or discouraging those that produce substantial greenhouse gas (GHG)

emissions[22]. Parties to international agreements are actively engaged in mitigating climate change, particularly through initiatives like the Kyoto Protocol, where developed nations establish economy-wide emissions caps while developing countries typically focus on specific programs and projects. However, developing countries face greater challenges in committing to mitigation efforts, as they often bear a disproportionate burden compared to developed nations due to their placement in the early stages of the environmental Kuznets curve[23]. As they grapple with the contradiction between development and environmental preservation, inevitable at this stage of the curve, stringent emission reduction measures can pose significant challenges to their development aspirations.

Among the BRICS economies, Russia's position has always been ambiguous. Following the dissolution of the Soviet Union, Russia experienced significant setbacks, with its economic growth rate gradually decelerating and even registering periods of negative growth. Despite its substantial size, Russia's economic development trajectory has been less than sanguine. Nonetheless, the country inherited the robust heavy industrial infrastructure of its predecessor superpower, which helped it surpass the other four BRICS nations in terms of per capita GDP.

Given the ambiguity of its economic development, Russia's stance on climate issues remains oscillating. It grapples with the dual identity of resembling a developing nation in some respects while bearing the burdens associated with developed status. The rationale behind both Russia's active participation in the UNFCCC and the Kyoto Protocol and its reluctance to renew the second commitment period lies in this nuanced economic context. On the one hand, Russia is willing to align with developing countries in demanding that the West bear its emission reduction responsibilities and in supporting the CBDR principle. On the other hand, as an Annex 1 country, Russia is obligated to take a leading role in meeting emission reduction targets, a requirement not shared by the other four BRICS nations (Ding 2014). This contrast may explain the heightened dynamism of BASIC countries in climate negotiations. The trajectory of Russia's future emissions reduction largely hinges on whether its government can formulate a more stable climate policy to enhance the investment environment for climate-related initiatives (Golub et al. 2019). However, Russia's position is often influenced by political considerations, necessitating increased vigilance from other BRICS countries. In essence, due to its dual status, Russia's stance becomes a pivotal factor

[22] Introduction to Mitigation. *United Nations Climate Change.* URL: https://unfccc.int/topics/introduction-to-mitigation (accessed 10.02.2024). GHGs (greenhouse gases) are the gases that absorb and emit infrared radiation and are present in the atmosphere. The six GHGs specified in the Kyoto Protocol are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6). Emission levels are now commonly measured using CO2 equivalent.

[23] The environmental Kuznets curve (EKC) is a hypothesized relationship between various indicators of environmental degradation and per capita income, which indicates that environmental impacts or emissions per capita are an inverted U-shaped function of per capita income.

for the BRICS nations to exert substantial influence in climate negotiations. Nevertheless, its unique position also harbors potential risks for collaborative efforts within the group.

Diverse economic interests in energy consumption and production

As previously noted, the BRICS nations have emerged as the world's foremost energy consumers, propelled by the rapid growth witnessed in China and India. However, a notable divergence is evident when examining their energy consumption compositions. China, India, and South Africa rely extensively on coal, comprising roughly half to two-thirds of their energy consumption profiles. In contrast, Russia and Brazil exhibit a higher reliance on oil and gas, particularly Russia, endowed with abundant reserves of these resources. In Russia, oil and gas collectively constitute 73% of the total primary energy demand, while in Brazil, they account for 62%. Additionally, Brazil's energy landscape includes a significant contribution from hydropower resources.

Initially, the BRICS nations enjoyed robust energy complementarity. However, with the subsequent introduction of emission reduction targets, China and India—both significant importers of primary energy—are compelled to diminish their reliance on fossil fuel imports. Furthermore, heightened concerns regarding energy security and independence, partly due to substantial energy imports, have spurred these nations to embark on initiatives aimed at diversifying their energy mix domestically. These efforts include the development of renewable energy sources tailored to local conditions. Consequently, while coal remains China's predominant energy source, its dominance in the power sector is gradually being challenged by renewables, which are projected to contribute to nearly 45% of electricity generation by 2030[24]. Similarly, in India, this figure is anticipated to reach 35% by 2030.

However, Brazil and Russia, as leading exporters of fossil fuel, perceive it as a crucial economic asset and thus harbor divergent interests compared to other BRICS nations, particularly in terms of augmenting exports and securing higher prices (Downie, Williams 2018). Following the events in Ukraine, Russia faced sanctions from the United States and Europe, resulting in a modest decline in oil production. Nonetheless, Russia remains one of the world's foremost exporters of oil and gas. According to the International Energy Agency, oil and gas revenues accounted for 45% of Russia's federal budget in 2021. While the European Union has historically been a key consumer of Russian oil and gas, Russia seeks to cultivate new trade partnerships, particularly within the BRICS framework, as sanctions intensify. In his greetings to the participants of the 2022 BRICS Business Forum in Beijing, President Vladimir Putin affirmed Russia's intention to pivot its trade relations towards reliable international allies such as

[24] International Energy Agency. 2022. World Energy Outlook 2022. *IEA Publications.* URL: https://iea.blob.core.windows.net/assets/830fe099-5530-48f2-a7c1-11f35d510983/WorldEnergyOutlook2022.pdf (accessed 10.02.2024).

China, India, Brazil, and South Africa[25]. Although both China and India have notably escalated their imports of Russian oil, the sustainability of this import-export dynamic is uncertain, given both countries' pursuit of an energy transition. Similarly, Brazil's oil production and exports are on the rise, driven by heightened demand from China. However, the sustainability of these imports and their potential to strain China's finances remains uncertain as China's coal-dominated energy consumption structure undergoes a significant shift.

Conclusion

Owing to their shared economic development model characterized by high energy consumption and emissions, the BRICS countries have forged alliances in climate negotiations. This collective stance has made notable contributions to upholding the principles of Common but Differentiated Responsibilities, advocating for compliance among developed nations, extending assistance to developing countries, and underscoring the rights and interests of the latter.

From a political perspective, as emerging economies, the BRICS countries are compelled to liberate themselves from the constraints of the prevailing international order and chart a novel path for their development. Consequently, they have united to establish the BRICS mechanism. In the course of its formation and evolution, this mechanism has fostered closer bonds among the five nations. Significantly, it indirectly reinforces domestic regime stability and enhances the regional influence of its members (Brosig 2021).

In climate governance, countries have leveraged the BRICS mechanism to expedite high-level dialogues, establish platforms, facilitate technical exchanges, provide financial support, and undertake other initiatives, yielding notable outcomes. This trend is attributable to the growing incidence of climate change-induced disasters and losses in the BRICS countries, prompting a heightened focus on governance measures.

The development of the BRICS climate cooperation mechanism is not devoid of risks. Traditional security conflicts among BRICS countries, divergent political and economic development models and levels, and disparate roles in the energy supply chain all pose challenges to climate cooperation among them. However, such dissimilarity is not unique to the BRICS; it is common among members of international organizations (Kiprizl, Köstem 2022), and its impact on their cooperation is not insurmountable. For instance, despite enduring bilateral border tensions, India and China continue to collaborate within the BRICS framework, striving to compartmentalize

[25] Putin V. 2022. Greetings to BRICS Business Forum participants. *President of Russia*. 22.06.2022. URL: http://en.kremlin.ru/events/president/transcripts/speeches/68689 (accessed 10.02.2024).

bilateral frictions from collective action within the bloc (Niu, Hong 2021). This underscores that differences between the BRICS countries are insufficient to undermine the foundation of their cooperation.

Furthermore, these contradictions are not insurmountable. Strengthening the Leaders' Meeting mechanism and fostering bilateral cooperation can prove beneficial in addressing political differences. In recent years, summit diplomacy has emerged as a significant avenue for international political engagement, as it facilitates the clarification of national interests and foreign policy through direct discussions among leaders, thereby minimizing misunderstandings. Simultaneously, it serves to spotlight selected major issues, making them more accessible across various government branches, prioritizing immediate concerns, and expediting their inclusion on the agenda. The current modality of the BRICS cooperation predominantly adopts this format, with leaders convening annually to deliberate on BRICS initiatives. While divergences exist among the BRICS nations on certain political and economic matters, in-depth dialogues among leaders have helped attenuate the focus on differences, fostering a heightened emphasis on common objectives.

However, it is essential to recognize that while the outcomes of leaders' meetings primarily entail major policy decisions, their practical impact is limited. Tangible progress is achieved through high-level dialogues within key sectors and through bilateral or multilateral cooperation projects. Given the multitude of participants involved, multilateral cooperation often encounters potential contradictions, hindering the attainment of a clear consensus and yielding minimal effects on specific practices. In contrast, bilateral cooperation within the BRICS framework proves to be more pragmatic. On one hand, bilateral engagements mitigate the risk of conflicts between two countries impeding overall collaboration within the mechanism. On the other hand, they facilitate targeted exchanges among BRICS nations. For instance, China boasts advanced new energy technology, while India seeks to develop in this domain. Brazil's expertise in bioenergy technology can offer valuable insights to other nations, and Russia holds a competitive edge in nuclear power. Strengthening bilateral cooperation within the BRICS mechanism would thus be instrumental in enabling countries to obtain the resources and expertise they require.

In the realm of energy import and export dynamics, optimizing the energy structure emerges as a favorable strategy. While the energy resources of BRICS nations are inherently complementary, disparities in consumption patterns often give rise to divergent interests. Hence, expediting the adjustment of energy structures stands to enhance the alignment of energy exchanges among BRICS countries. For instance, China, India, and South Africa currently rely predominantly on coal, yet in recent years, they have augmented their imports of oil and gas from Russia and Brazil, presenting an opportune moment for energy restructuring. This entails gradually diminishing coal usage while promoting the adoption of natural gas and the development of renewable energy sources. Taking China as an illustrative case, as early as 2013, China embarked

on an ambitious coal-to-gas conversion initiative, advocating for cleaner natural gas utilization in power generation and heating. According to the National Development and Reform Commission (NDRC), if the coal-to-gas transition proceeds at its current pace, the proportion of natural gas in China's primary energy consumption is projected to rise to 14.0% by 2030, significantly contributing to its goal of carbon peaking. Furthermore, the adjusted energy consumption structure aligns more closely with China's energy strategy. Presently, China's coal imports primarily originate from Australia, but strained relations between China and Australia have substantially impacted these imports. A decline in China's coal demand coupled with a heightened demand for natural gas would mitigate energy pressure stemming from external political dynamics. Russia, as the world's largest natural gas exporter, would assume a pivotal role in bolstering China's energy security within the BRICS framework.

Over years of evolution, the BRICS mechanism has undergone continuous refinement, emerging as a crucial platform for exchanges and dialogues among developing countries in the realms of economy, finance, and global governance. Moreover, in light of fluctuations in United States' climate policies and overall shift in leadership on climate issues, BRICS countries are poised to assume increasingly prominent roles in future climate negotiations and governance endeavors. From the perspective of economic development, environmental vulnerability, and political imperatives, the homogeneity among the BRICS nations remains conspicuous and is poised to persist for the foreseeable future. This suggests that climate cooperation anchored on this common ground will endure. Furthermore, the current BRICS cooperative framework has effectively inclined the member states towards collaboration rather than divergence.

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Эволюция сотрудничества по глобальному климатическому управлению между странами БРИКС: от РКИК до Парижского соглашения

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В ходе международных переговоров государства вступают в различные политические отношения, от союзничества и партнёрства до конкуренции и соперничества. Несмотря на различия между ними, на страны БРИКС в совокупности приходится значительная доля мировых выбросов парниковых газов. В настоящей статье рассматриваются истоки сотрудничества в рамках БРИКС и его последствия для взаимодействия стран – членов объединения по климатическим вопросам. Теоретической рамкой исследования выступает неолиберальный институционализм. Прослеживается эволюция позиций стран БРИКС по вопросам изменения климата начиная с заключения Рамочной конвенции ООН об изменении климата в 1992 г. В статье утверждается, что три основных фактора определяют преимущественно союзнический и партнёрский характер отношений стран БРИКС по климатической повестке: сопоставимый уровень экономического развития, общая уязвимость перед негативными последствиями изменения климата, сходные стратегические и международно-политические вызовы. Латентная конкуренция, присутствующая в отношениях стран БРИКС, также не способна переломить доминирующую тенденцию к сотрудничеству. Эти выводы вносят вклад в общую теоретическую дискуссию о закономерностях формирования политических альянсов в глобальном климатическом управлении.

Ключевые слов: глобальное климатическое управление, международные климатические переговоры, БРИКС, создание альянсов

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References:

Allan J.I., Bhandary R.R. 2022. What's on the Agenda? UN Climate Change Negotiation Agendas since 1995. *Climate Policy.* 24(2). P. 153–163. DOI: 10.1080/14693062.2022.2120453

Andonova L.B., Alexieva A. 2012. Continuity and Change in Russia's Climate Negotiations Position and Strategy. *Climate Policy.* 12(5). P. 614–629. DOI: 10.1080/14693062.2012.691227

Bailer S., Weiler F. 2015. A Political Economy of Positions in Climate Change Negotiations: Economic, Structural, Domestic, and Strategic Explanations. *Review of International Organizations.* 10(1). P. 43–66. DOI: 10.1007/s11558-014-9198-0

Brosig M. 2021. Has BRICS Lost its Appeal? The Foreign Policy Value Added of the Group. *International Politics.* Online first. DOI: 10.1057/s41311-021-00327-y

Bruetsch C., Papa M. 2013. Deconstructing the BRICS: Bargaining Coalition, Imagined Community, or Geopolitical Fad? *Chinese Journal of International Politics.* 6(3). P. 299–327. DOI: 10.1093/cjip/pot009

Dagdeviren H., Elangovan A., Parimalavalli R. 2021. Climate Change, Monsoon Failures and Inequality of Impacts in South India. *Journal of Environmental Management.* 299(113555). DOI: 10.1016/j.jenvman.2021.113555

Dai S., Zhang M., Huang W. 2016. Decomposing the Decoupling of CO_2 Emission from Economic Growth in BRICS Countries. *Natural Hazards.* 84(2). P. 1055–1073. DOI: 10.1007/s11069-016-2472-0

Ding Y. 2014. 金砖国家的气候政策研究 [Research on Climate Cooperation of the BRICS]. Publication Number 10269. East China Normal University. (In Chinese)

Downie C., Williams M. 2018. After the Paris Agreement: What Role for the BRICS in Global Climate Governance? *Global Policy.* 9(3). P. 398–407. DOI: 10.1111/1758-5899.12550

Dronin N., Kirilenko, A. 2011. Climate Change, Food Stress, and Security in Russia. *Regional Environmental Change.* 11(1S). P. 167–178. DOI: 10.1007/s10113-010-0165-x

Genovese F., McAlexander R.J., Urpelainen J. 2022. Institutional Roots of International Alliances: Party Groupings and Position Similarity at Global Climate Negotiations. *The Review of International Organizations.* 18(2). P. 329–359. DOI: 10.1007/s11558-022-09470-4

Golub A., Lugovoy O., Potashnikov V. 2019. Quantifying Barriers to Decarbonization of the Russian Economy: Real Options Analysis of Investment Risks in Low-Carbon Technologies. *Climate Policy.* 19(6). P. 716–724. DOI: 10.1080/14693062.2019.1570064

Hallding K., Juerisoo M., Carson M., Atteridge A. 2013. Rising Powers: the Evolving Role of BASIC Countries. *Climate Policy.* 13(5). P. 608–631. DOI: 10.1080/14693062.2013.822654

Keohane R.O. 1984. *After Hegemony: Cooperation and Discord in the World Political Economy.* Princeton: Princeton University Press.

Keohane R.O., Victor D.G. 2016. Cooperation and Discord in Global Climate Policy. *Nature Climate Change.* 6(6). P. 570–575. DOI: 10.1038/nclimate2937

Kiprizl G., Köstem S. 2022. Understanding the BRICS Framing of Climate Change: The Role of Collective Identity Formation. *International Journal.* 77(2). P. 270–291. DOI: 10.1177/00207020221135300

Krasner S.D. 1982. Structural Causes and Regime Consequences: Regimes as Intervening Variables. *International Organizations.* 36(2). P. 185–205. DOI: 10.1017/S0020818300018920

Luckhurst J. 2013. Building Cooperation between the BRICS and Leading Industrialized States. *Latin American Policy.* 4(2). P. 251–268. DOI: 10.1111/lamp.12018

Mokhov I.I., Semenov V.A. 2016. Weather and Climate Anomalies in Russian Regions Related to Global Climate Change. *Russian Meteorology and Hydrology.* 41(2). P. 84–92. DOI: 10.3103/s1068373916020023

Niu H.B., Hong S. 2021. A Chinese Perspective: Will China-India Friction Paralyze the BRICS? *Global Policy.* 12(4). P. 524–528. DOI: 10.1111/1758-5899.12968

Richard Y., Fauchereau N., Poccard I., Rouault M., Trzaska S. 2001. 20th Century Droughts in Southern Africa: Spatial and Temporal Variability, Teleconnections with Oceanic and Atmospheric Conditions. *International Journal of Climatology.* 21(7). P. 873–885. DOI: 10.1002/joc.656

Romanovsky V.E., Drozdov D.S., Oberman N.G., Malkova G.V., Kholodov A.L., Marchenko S.S., Moskalenko N.G., Sergeev D.O., Ukraintseva N.G., Abramov A.A., Gilichinsky D.A., Vasiliev A.A. 2010. Thermal State of Permafrost in Russia. *Permafrost and Periglacial Processes.* 21(2). P. 136–155. DOI: 10.1002/ppp.683

Shiklomanov A.I., Lammers R.B., Rawlins M.A., Smith L.C., Pavelsky T.M. 2007. Temporal and Spatial Variations in Maximum River Discharge from a New Russian Data Set. *Journal of Geophysical Research-Biogeosciences.* 23(3). P. 520–530. DOI: 10.1029/2006jg000352

Xu J.C., Grumbine R.E., Shrestha A., Eriksson M., Yang X.F., Wang Y., Wilkes A. 2009. The Melting Himalayas: Cascading Effects of Climate Change on Water, Biodiversity, and Livelihoods. *Conservation Biology.* 23(3). P. 520–530. DOI: 10.1111/j.1523-1739.2009.01237.x

Zuo P., Jiang P. 2017. 金砖国家参与全球气候治理的动因及合作机制分析 [An Analysis on Motivation and the Cooperation Mechanism of BRICS Countries' Participating in Global Climate Governance]. *International Review.* №4. P. 57–71.